



## GRADUATE SCHOOL OF BUSINESS STANFORD UNIVERSITY

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### AMAZON.COM: MARCHING TOWARDS PROFITABILITY

*Ouch. It's been a brutal year for many in the capital markets and certainly for Amazon.com shareholders. As of this writing, our shares are down more than 80% from when I wrote you last year. Nevertheless, by almost any measure, Amazon.com the company is in a stronger position now than at any time in its past... The year 2001 will be an important one in our development. As a first step, we've set the goal of achieving a pro forma operating profit in the fourth quarter. While we have a tremendous amount of work to do and there can be no guarantees, we have a plan to get there, it's our top priority, and every person in this company is committed to helping with that goal.*

—Jeff Bezos, Founder and CEO, Amazon.com, Letter to Shareholders, April 2001

#### INTRODUCTION

For much of its six-year history, the rallying cry at Amazon.com had been “get big fast.” The company spent many millions of dollars to acquire and service customers. The strategy worked — the company got big fast. Amazon mostly sold books, CDs, and DVDs; but it also offered barbecues, big screen TVs, and many things in between. In 2000, a mere five years after it opened for business, Amazon served 20 million customers, up from 14 million in 1999 (see **Exhibit 1**), and sales grew from \$1.64 billion in 1999 to \$2.76 billion in 2000. However, Amazon lost \$720 million in 1999 and \$1.4 billion in 2000 fueling its phenomenal growth (see **Exhibit 2** for selected Amazon financial data).

In his first letter to shareholders in Amazon's 1997 annual report, Bezos explained his company's strategy and the metrics he cared about most:

We first measure ourselves in terms of the metrics most indicative of our market leadership: customer and revenue growth, the degree to which our customers continue to purchase from us on a repeat basis, and the strength of our brand. We have invested and will continue to invest aggressively to expand and leverage our customer base, brand, and infrastructure as we move to establish an enduring franchise.

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Professor Haim Mendelson and Philip Meza prepared this case as the basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation. The case was edited by Mary Petruszewicz.

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Bezos was unconcerned about what he called “short-term” profitability:

I believe that if we’re investing in something and it works, then we should invest more. Profitability is important to us, but it’s long-term profitability that’s important, not short-term profitability. I don’t want to leave anyone with the impression that we don’t care about it. But if what you’re trying to optimize for is long-term success, then that causes you to make different decisions in the short term. It would be a mistake to optimize for profitability in the short term, because that would mean you weren’t investing aggressively in the things that were working and the things that we really, really believe in.”<sup>1</sup>

All of that changed in 2000. While the new year did not bring the dreaded Y2K bug, another virus swept through Internet business models: reality. Investors, once content to subsidize losses for the sake of market share began to demand profitability. In 1999, the company greatly expanded the categories on offer, fueling Amazon’s top line growth. Yet, Amazon remained unprofitable. By 2001, Amazon was under the same scrutiny that felled lesser dot-coms. With some analysts predicting liquidity problems for Amazon in late 2001 — fatal for retailers who depend on supplier credit — it was essential that Amazon begin to show a profit.<sup>2</sup>

Keeping pace with the changing times, by the fourth quarter of 2000, Amazon’s new watchwords became “march toward profitability”. Bezos explained: “We have been planning for a long time for this inflection point, after expanding geographically and our product categories in 1999. This is the right time to focus on the fundamental economics of our business, even if it means sacrificing growth.”<sup>3</sup> To that end, in early 2001, Amazon undertook a series of measures to cut costs, including laying off 1,300 employees (15 percent of its workforce), closing some distribution and processing facilities, and reviewing all of its product offerings with an eye toward profitable fulfillment.

Could Amazon become profitable? Although Amazon — and to a lesser extent other Internet retailers — had been successful at building market share and selling billions of dollars of merchandise over the Web, through mid-2001, profitability eluded all Internet retailers and most Internet channels. The Web was thought to have enabled “frictionless” marketplaces in which customers could easily compare prices, and suppliers could disintermediate formerly integrated value chains, to deliver only the discrete components that a given user valued — all at lower cost. Further, in an effort to build a base of customers, many e-tailers sold their goods at rock bottom prices, fostering the “bargain bazaar” mentality associated with Web-based transactions. For example, Buy.com, advertised as having “the lowest prices on earth,” guaranteed to beat the prices of its top three competitors in each product category by 10 percent — even if that meant

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<sup>1</sup> James Daly, “Running Scared,” *Business 2.0*, April 1999, p. 66.

<sup>2</sup> In a February 2001 report, Lehman Brothers debt analyst Ravi Suria questioned whether Amazon would have money to sustain its operations through 2001. In doing so, Suria, for the third time in less than a year, advised investors to avoid Amazon’s convertible bonds, debt securities that give investors the option of turning the bonds into stock. The report cautioned that Amazon’s working capital (current assets minus liabilities) was about \$386 million, much less than the \$1.1 billion in cash and marketable securities the company highlighted when it released quarterly earnings on January 30, 2001. Suria believed working capital was a more relevant metric when judging the company’s balance sheet because it accounts for temporary gains in cash via items such as unpaid expenses and reduced inventory levels. Like all retailers, Amazon relied on its suppliers to supply goods on credit, and fears about Amazon’s liquidity could cause vendors to shorten payment terms.

<sup>3</sup> Saul Hansell, “A Front-Row Seat as Amazon Gets Serious,” *The New York Times*, May 20, 2001.

selling below cost. Buy.com used a Web crawler that compared its prices to its competitors'. Calling its approach "optometry economics," Buy.com was focused on acquiring customers, making money from advertising, and from selling services such as installation and maintenance for its higher-end products.<sup>4</sup>

In 1999, and again in 2000, researchers found that book and CD prices on the Internet were 9 to 16 percent lower than the corresponding prices in conventional, brick and mortar stores, factoring in shipping, shopping, and tax expenses.<sup>5</sup> The same happened in some other industries: when brokerages opened their online channels, the prices for online stock transactions plummeted from an average of \$53 per trade to \$18 in less than two years.<sup>6</sup> Online trading was becoming a commodity with no hope of reaching profitability, and online brokers were hurting. After expanding to meet the increased trading volumes buoyed by the bull market, particularly in NASDAQ stocks, by 2001 most online brokerages had retrenched. Industry leaders such as Charles Schwab and Ameritrade announced staff reductions, and smaller volume online brokers cut even more deeply; eighth-ranking CSFBdirect axed a quarter of its workforce.<sup>7</sup>

Online retail was hurting even more, and by 2001, the Internet landscape was dotted with high profile failures. A special Web site, whose name is not fit to print, was set up just to report those failures; by July 2001, its "hall of fame" listed more than 370 companies. Online grocer Webvan, which raised more in its initial public offering (\$1.2 billion) than any other online retailer except Amazon, halted its operations in July 2001, along with Boston competitor Homeruns. eToys, once thought of as a contender, was gone by May 2001, burdened by the debt it assumed in expanding its fulfillment capabilities. Online pharmacy PlanetRx quit online retailing in March, lacking the deep pockets of rival Drugstore.com. With so many sick and dying online retailers, would Amazon be the next victim? Could Amazon escape the fate of its dot-com peers and become profitable? How?

## AMAZON'S SHORT HISTORY

In 1994, Jeff Bezos, a thirty-two-year-old vice president at New York based D. E. Shaw,<sup>8</sup> founded Amazon.com to capitalize on the phenomenal growth of the Web. Bezos recalled: "Web usage, as measured in number of bytes flying across the Internet in Web format, was growing at 2300% a year, and things just rarely grow that fast. So I set about trying to find a business plan that might make sense in the context of that growth, and I made a list of 20 different products looking for the first best product to sell online."<sup>9</sup> After researching the twenty retail categories, Bezos selected books. Bezos explained:

Books are incredibly unusual in one respect, and that is that there are more items in the book category than there are items in any other category by far. There are more than 3 million different titles available and active in print worldwide. Music

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<sup>4</sup> Buy.com abandoned this approach in 2000.

<sup>5</sup> Erik Brynjolfsson and Michael D. Smith, "Frictionless Commerce? An Exploratory Analysis of Internet Pricing Behavior," *Management Science*, April 2000, vol. 46, no. 4, pp. 563–585.

<sup>6</sup> See Mendelson, Techopitayakul, and Meza, "Broker.com," April 2000, Case no. EC-13, Stanford Graduate School of Business, Center for Electronic Business and Commerce.

<sup>7</sup> Abigail Ravner and John Labate, "Online Brokers Axe More Jobs," *Financial Times*, June 1, 2001.

<sup>8</sup> D.E. Shaw was an investment and technology development firm whose activities centered on the intersection of technology and finance. The company's founder, chairman and CEO was Stanford Ph. D. David E. Shaw.

<sup>9</sup> Jeff Bezos interview on Motley Fool Radio, January 25, 1999.

is the number two category, and there are about 300,000 active music CDs. When you have this huge number of titles, a couple of things start to happen. First of all, you can use computers to sort, search and organize. Second, you can create a super-valuable customer proposition that can only be done online, and that is selection... Online, you can have this vast catalog of millions of titles, whereas in the physical world, the largest physical superstores are only about 175,000 titles, and there are only three that big.<sup>10</sup>

Amazon opened its online bookstore in July 1995 and quickly differentiated itself by focusing on massive selection, service quality, simplicity, efficiency, and pricing. (See **Appendix A** for a brief discussion of the bookseller market in the United States.) In the prospectus to Amazon.com's initial public offering, the company cited important advantages of its online business model over the traditional book retailing industry model: "Physical store-based book retailers must make significant investments in inventory, real estate, and personnel for each retail location. This capital and real estate intensive business model, among other things, limits the amount of inventory that can be economically carried in any location." Amazon also cited customer data as a key advantage of its business model: "publishers and traditional book retailers cannot easily obtain demographic and behavioral data about customers, limiting opportunities for direct marketing and personalized services."<sup>11</sup> Investors agreed: when Amazon went public on May 15, 1997, selling 3 million shares at \$18 per share, the stock opened at \$29-1/4 per share, hitting a day's high of \$30 before settling down to close at \$23-1/2. The initial public offering raised \$54 million for Amazon, giving the company a market value of \$438 million.<sup>12</sup>

Investors in Amazon were impressed by a number of important features of its business model. First and foremost, Amazon could benefit from developments in technology while, as Bezos put it, "real estate doesn't obey Moore's Law." Not only had Amazon, in its early days, shifted much of its inventory burden to its suppliers, it also did not require the expensive real estate of retail stores, and its central distribution system enabled it to increase selection while cutting down on inventory.

Another advantage of Amazon's business model, particularly as compared to brick and mortar competitors, was the speed at which Amazon collected cash. The company received payment soon after a customer purchased an item. In the last quarter of 2000, receivables took a day and Amazon had on average twenty days of inventory. However, Amazon did not pay for that inventory until sixty days later. Thus, Amazon enjoyed the use of the funds generated from the full sale price for over a month.

Once billing itself as the "Earth's biggest bookstore," Amazon soon expanded to other media categories. Rechristened as the "Earth's biggest book and music store" by 1998, Amazon started selling music, videos, and DVDs, rounding up its core "BMV" (Books, Music and Video) business. Excluding stock-based compensation, intangibles, equity losses and interest expense, Amazon's BMV business<sup>13</sup> was profitable from the second quarter of 2000 onwards.

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<sup>10</sup> Jeff Bezos speech at the Commonwealth Club, July 27, 1998.

<sup>11</sup> Amazon SEC Form 424B1, June 15, 1997.

<sup>12</sup> Suzanne Galante and Dawn Kawamoto, "Amazon.com IPO Skyrockets," CNET News.com, May 15, 1997.

<sup>13</sup> In the United States.

In 1999, Amazon expanded its retail categories to include toys, video games, and electronics products and tools, and built a network of distribution centers to support its expanded product categories (see **Exhibit 3**). Following its customer base, Amazon also embarked on an international expansion. In July 1995, only a month after it opened for business, Amazon exported merchandise from Seattle, Washington to customers in forty-five countries. In October 1998, it launched Web sites in the United Kingdom and Germany, [www.amazon.co.uk](http://www.amazon.co.uk) and [www.amazon.de](http://www.amazon.de).<sup>14</sup> It added French operations ([www.amazon.fr](http://www.amazon.fr)) at the end of August 2000 and launched a Web site in Japanese ([www.amazon.co.jp](http://www.amazon.co.jp)) in November 2000. By the end of 2000, 22 percent of Amazon's sales came from outside the United States; 14 percent came from Europe alone.

In moving overseas, the company had to respond to unique challenges associated with these foreign countries. For example, it was illegal to discount books in Germany. Because competitive pricing was a key component of the Amazon value proposition, the law forced the company to find other ways to satisfy the German market's diverse needs, such as offering a comprehensive selection of products and services and providing the insights of respected local editors.<sup>15</sup> No longer content with being a bookstore, by 1999 Amazon's slogan became "Earth's biggest selection," reflecting its growth into numerous categories and countries (**Exhibit 4** shows the evolution of Amazon's sales mix over time).

On December 28, 2000, Amazon launched "Amazon Outlet," an online bargain store allowing the company to move overstock, discontinued and factory-reconditioned merchandise at a discount. Amazon reduced prices up to 70 percent on selected "Outlet" items, with an emphasis on consumer electronics and toys. The outlet reflected Amazon's increasing emphasis on managing its own inventory: When Amazon was able to shift the burden of carrying inventory to its vendors, such a bargain basement was not needed. However, if Amazon risked carrying more inventory, then the outlet could help it reduce that risk. In the first quarter of 2001, Amazon saw its inventory drop to \$156 million, compared to \$172 million in the first quarter of 2000 (see **Exhibit 2**).

As Amazon expanded its categories and opened expensive distribution centers to support the "Earth's biggest selection," it trained its focus on supply chain management. From now on, if Amazon was to show a profit, it would have to compete with world-class retailers like Wal-Mart on mundane but crucial areas such as inventory minimization and order shipment consolidation — in a word, fulfillment.

### **FULFILLMENT: IT'S IN THE MAIL**

Throughout its short history, Amazon had maintained a relentless focus on the customer's online experience, making sure that shopping at Amazon was easy and fun. Many aspects of e-tailing such as fast and secure credit card processing, easy and rich merchandise evaluation via pictures,

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<sup>14</sup> These sites replaced Amazon's earlier European Web sites, Bookpages.com and Telebook.com, which Amazon acquired in April 1998.

<sup>15</sup> Diego Piacentini, "Case Study: Amazon.com," *Economic Perspectives Journal of the U.S. State Department*, May 2000 (<http://usinfo.state.gov/journals/ites/0500/ijee/ijee0500.htm>). Amazon encountered similar challenges in Japan. Bezos noted, "The price maintenance system has some advantages for businesses." See "Amazon Sells CDs, Videos in Japan," *The Financial Times*, June 14, 2001.

descriptions, reviews and even bibliophile virtual communities could be found on Amazon's Web site—many were in fact invented by Amazon. One example of this focus on customer experience was the launch in September 1997 of the innovative “1-Click” ordering system that enabled customers to make purchases with just one click of a button — eliminating the need for buyers to tediously re-enter personal and order data.<sup>16</sup> Initially, Amazon was focused on creating a state-of-the-art, customer-centered electronic “storefront,” whereas much of the “back-office” operations were outsourced to distributors like Ingram books. And yet, Amazon's value proposition to customers, delivering atoms whether they formed books or barbecues, had to rely on the techniques pioneered by catalog and mail order companies like Sears, Roebuck in the nineteenth century. Indeed, much of Amazon's troubles, and one of the impediments to profitability, stemmed from its failure to master the old art of efficiently delivering merchandise to a customer's door.

For many of its products, Amazon failed to execute profitably. In 2000, Amazon installed software that calculated how much money the company made or lost on each shipment. Taking into account features such as cost to ship, frequency of returns, and forty-seven other factors, Amazon discovered that more than 10 percent of the products sold from its U.S. electronics, kitchen, and tool departments lost money, and that 5 percent of the book, music, and video products were money losers.<sup>17</sup> Amazon also tracked the profit contribution of each item sold, breaking it down along the different steps of the supply chain from procurement to shipping.

### **From Clicks to Bricks**

From its early days, Amazon prided itself on being a virtual retailer. Its business model, as described in Amazon's prospectus, called for a minimum of bricks: The company “carried minimal inventory and relied on rapid fulfillment from major distributors and wholesalers.” The prospectus continued:

The Company utilizes automated interfaces for sorting and organizing its orders to enable it to achieve the most rapid and economic purchase and delivery terms possible. The Company's proprietary software selects the orders that can be filled quickly via electronic interfaces with vendors, and forwards remaining orders to its special order group. Under the Company's arrangements with its distributors, electronically ordered books often are shipped by the distributor within hours of receipt of an order from Amazon.com. The Company has developed customized information systems and dedicated ordering personnel that specialize in sourcing hard-to-find books. The Company currently processes all sales through its warehouse in Seattle.<sup>18</sup>

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<sup>16</sup> In September 1999, Amazon was awarded a patent for its “1-Click” ordering process that allowed customers to shop without entering their shipping and billing information every time they purchased from the company. A month later, the company filed a patent-infringement suit against Barnes & Noble.com Inc. alleging that it “willfully infringed” on Amazon's 1-Click ordering system. In December 1999, a federal district judge in Seattle granted Amazon a preliminary injunction, barring Barnes & Noble.com from using a 1-Click system for online orders. A federal appeals court in Washington state lifted the injunction in February 2001 until a trial could take place. That trial is scheduled to begin in September 2001.

<sup>17</sup> Hansell, “A Front-Row Seat as Amazon Gets Serious.”

<sup>18</sup> Amazon SEC Form 424B1, June 15, 1997.

Books available in its Seattle warehouse were shipped by Amazon; in most other cases, the order would be forwarded to a distributor like Ingram Books who fulfilled it on behalf of Amazon.

This approach was problematic, as fulfillment difficulties plagued many e-tailers who outsourced most of their logistics infrastructure, resulting in a customer backlash in the 1999 holiday season. For example, eToys, which outsourced the bulk of its fulfillment, failed to deliver 4 percent of orders on time in the 1999 holiday season, and the resulting bad publicity gave it a black eye from which it never recovered. A posting on the *Wall Street Journal's* "Web Shopping Experience" discussion group summarized the season as follows: "The Web-world of retailing, or e-tailing, could be described as the 'e-nightmare before Christmas'."<sup>19</sup>

Amazon realized that fulfillment was a central feature of the customer experience. And, while outsourced fulfillment could work when Amazon offered only books, as the company expanded its product offerings, it had to expand its infrastructure as well. In 1998, Amazon reversed its earlier policy of minimizing fulfillment infrastructure and embarked on building a distribution empire. In 1999, Amazon opened distribution centers in Nevada, Kansas, Georgia, North Dakota and two in Kentucky (see **Exhibit 5**), amounting to 4 million square feet built at a cost of \$300 million. Amazon now believed that in order to control the customer experience, it had to manage its own fulfillment operations. Indeed, during the 1999 holiday season, more than 99 percent of holiday orders, including last minute orders, arrived on time.

However, Amazon changed course again in 2001, deciding to "drop-ship" some of its book orders so a distributor would operate the fulfillment process, shipping some single-book orders directly to Amazon's customers. Earlier, Amazon unpacked goods sent by distributors only to repack them and ship to customers, increasing the number of touch-points and the associated complexity and cost. Amazon decided to optimize fulfillment through a combination of drop-ship and in-house fulfillment. An Amazon executive said, "You won't be able to tell if a book is sent from our center in Fernley, Nevada, or [by] Ingram [a book distributor] in Laverne, Tennessee." A different viewpoint was expressed by competitor Steve Riggio, acting CEO of BN.com, who commented, "I can't see entrusting our customer relationships to an outside company. If things go wrong you are in for a pot of trouble."<sup>20</sup>

Asked if Amazon's fundamental business model would continue to span its Web vision and fulfillment skills, Bezos said:

There will always be products that require [our touching]. We will have a competence [in distribution] that will be hard to compete with... real competence from our distribution network.

Most businesses have two things in the physical world in which they are excellent. Look at Wal-Mart. Its physical attributes are excellent: greeters, clean stores, right locations, and it has the lowest cost structures. It is a rare business that has only a single competency.

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<sup>19</sup> *The Wall Street Journal Interactive*, December 30, 1999.

<sup>20</sup> Hansell, "A Front-Row Seat as Amazon Gets Serious".

There are many cases where we do not touch the products, for example, Drugstore.com.<sup>21</sup> The physical distribution of pharmaceuticals is very different from the physical distribution of the products we got good at distributing. The items we touch should have two attributes:

- Conveyable, i.e., on a conveyer belt and smaller than a bread box;
- Nonperishable.

We have millions of SKUs (stock keeping units) in our distribution center network. It's difficult to ship singles, from a selection of millions, to individuals.<sup>22</sup>

While the fulfillment process for books, music and video (BMV) was fairly straightforward, it was much more complicated for Amazon's other categories. An Amazon executive in electronics commented, "it's expensive to handle returns of products that may contain dozens of individual parts in a box. If something is missing, Amazon must then fight it out with customers." To reduce disputes about the condition and completeness of returns of expensive products, Amazon was considering contracting with an outside company to handle returns from customers' homes.<sup>23</sup>

In the first quarter of 2001, Amazon's fulfillment expenses were 14 percent of sales; they were 17 percent in the first quarter of 1999.

### **GETTING PERSONAL: IT'S IN THE E-MAIL**

While fulfillment represented an important cost component, for Amazon — and indeed, most companies using the Web as a channel — achieving profitability required finding ways to deliver unique value via the Internet. Many businesses operating over the Web pinned their hopes on the opportunities the Web presented for customization and personalization.

The same features of the Web that fostered price competition also enabled Web-based businesses to develop price- and margin-maximizing strategies that were customized to segments and individuals. Indeed, researchers found substantial price dispersion on the Web. However, when the prices were weighted by market share, price dispersion was lower for Web retailers because of the dominance of heavily branded Web retailers.<sup>24</sup> In addition, the Web enabled delivery of new services tailor-made for individuals who were willing to pay for them. As valuations of Internet-based businesses came under increasing scrutiny, tools that allowed Web retailers to protect or enhance margins became increasingly important.

In March 2001, an industry advocacy group, Personalization Consortium, which included companies such as American Airlines and Charles Schwab, found that 56 percent of people

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<sup>21</sup> Drugstore.com was part of the Amazon Commerce Network, where Amazon played the role of a virtual storefront: Amazon created a "Health and Beauty" tab that gave Drugstore.com access to Amazon's customers and platform, while merchandising, fulfillment etc. were performed by Drugstore.com. See "Virtual Middleman," below.

<sup>22</sup> Burgelman and Meza, "Amazon.com: Evolution of the e-Tailer."

<sup>23</sup> Hansell, "A Front-Row Seat as Amazon Gets Serious."

<sup>24</sup> Ibid.



surveyed were more likely to purchase from a site that allowed personalization. In fact, 87 percent of respondents were annoyed when a site asked for the same information more than once, and 82 percent were willing to provide such personal information as gender, age, and ethnicity if the site would remember their preferences and personal information. The group found that 47 percent (40 million) of U.S. adults online personalized a Web site, double the percentage from two years prior (23 percent in January 1999). Consumers who personalized were more valuable customers; 28 percent spent more than \$2,000 online in 2000 compared to only 17 percent of non-personalizers.

### **Personalizing Price**

Personalization enabled retailers to use dynamic pricing, whereby prices were changed based on demand (i.e., the value placed on the product or service by a target customer) or supply (e.g., product availability) conditions. While dynamic pricing existed well before the Web, Web technology and customer databases greatly increased its potential. For brick and mortar retailers, testing demand elasticity was an expensive and time-consuming proposition, and the ability to offer personalized pricing was limited or non-existent. By contrast, Web-based sellers could perform real-time price tests, measure immediate customer responses, and act on them. For example, if a Web retailer wanted to know the sales impact of a 5 percent price increase, it could conduct a test by randomly charging visitors this increased price. By studying the response, retailers could gain important insights into the role price played in customers' buying decisions — by customer segment.

Amazon tested dynamic pricing over the 2000 Labor Day weekend. Users in a chat room on the DVDtalk.com Web site noticed that some Amazon customers paid more than others for the same DVDs. One person reported that he ordered the DVD of Julie Taymor's "Titus" for \$24.49, and the following week he saw that the price increased to \$26.24; when he deleted Amazon's "cookies" from his computer, the price fell to \$22.74. A number of DVDtalk.com participants believed that Amazon's prices were higher for its regular customers, and one chat room visitor said "They [Amazon] must figure that with repeat customers they have 'won' them over and they can charge them slightly higher prices since they are loyal and don't mind and/or won't notice that they are being charged three to five percent more for some items." The discovery was quickly publicized over the Internet, resulting in highly visible customer complaints. Amazon spokesman Bill Curry denied that the company engaged in dynamic pricing: "It was done to determine consumer responses to different discount levels...this was a pure and simple price test. This was not dynamic pricing. We don't do that and have no plans to ever do that." Amazon issued a prompt apology and refunds for six thousand customers. Curry later observed, "Dynamic pricing is stupid, because people will find out. Fortunately, it only took us two instances to see this."<sup>25</sup>

### **Personalizing Service**

An important feature of Amazon's business model was the company's ability to personalize its service. Amazon aimed to use personalization to "build the right store for every customer," namely to recognize, remember, and learn from every interaction with the customer; to allow

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<sup>25</sup> David Streitfeld, "On the Web, Price Tags Blur; What You Pay Could Depend on Who You Are," *The Washington Post*, September 27, 2000.

customers to get what they wanted and to cut through what they didn't; and to surprise and delight customers through features that aided product discovery.

Amazon presented a personalized Web page to each customer based on his or her recent purchases. This was the Web equivalent of customizing a storefront to suit the taste of each person walking in the door. Amazon also tested the general look and feel of the site, changing the order and appearance of various items. It measured the effectiveness of various layouts by creating randomized versions of the Web pages and measuring the response they generated. The recommended selections were generated by a collaborative filter using customer demographics and order history (see **Appendix B** for more information on collaborative filtering, and **Exhibit 6** for examples of personalized customer home pages). These personalized Web pages also featured "inline messages" that were prompted by various events. For example, if the user had not purchased in a while, the message may have read, "Welcome Back, Haim, we've missed you!" Or if an e-mail message sent by the company bounced back, the user may have seen a message asking, "New e-mail address? Visit your account and update your information." If the customer had recently purchased an item such as a DVD player, the personalized Web page may have generated a targeted offer such as, "Feed your new DVD player with DVDs up to 25% off"; the percentage of the discount was personalized according to parameters that were analyzed by the company's algorithms.<sup>26</sup>

Amazon did not wait until the customer came to the Web site. It also sent out personalized e-mails, notifying customers about new titles or products that were likely to be of interest and sometimes offering discounts; all based on its profile of the individual customer. In addition to targeted recommendations, Amazon added extras such as personalized bundling: when a customer selected an item, he or she would get a special offer to buy another product at a discount (see **Exhibit 7** for an example of product bundling).

Bezos believed that personalization was key to customer loyalty. "It's just like in traditional retail. If a small-town merchant knew your tastes, he could tell you if something interesting came in and he suspected you might want it. That was very valuable. If there was another merchant who opened up next door and didn't have five years of experience with you, then you wouldn't have as good a shopping experience there, just because the person didn't know you as well."<sup>27</sup> Indeed, spending per active customer grew along with the growth in the number of customers, reflecting in part the category growth and in part the effect of personalization and branding (see **Exhibit 8**).

## PRICING AND BRANDING

### Pricing and Competition

Many viewed the transparency of pricing enabled by the Web as an unqualified benefit to consumers, empowering shoppers to costlessly compare the prices of items charged by sellers. Yet, some argued that when there were few sellers, price transparency could also benefit sellers, helping them to maintain higher pricing.

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<sup>26</sup> In the above examples, underlined text corresponds to hyperlinks that lead the user to the specific offer screen.

<sup>27</sup> George Anders, "The View from the Top," *Wall Street Journal*, July 12, 1999, p. R52.

The argument went as follows. Online merchants, like all merchants, monitored one another's prices. When price information was widely available, it became easier for sellers to coordinate their pricing and to implicitly agree to charge a high price. Indeed, although researchers have found price dispersion of between 25 and 33 percent for CDs and books on the Web, this dispersion narrowed among the Internet retailers with market power to levels lower than those realized by brick and mortar competitors.<sup>28</sup>

With many competitors, this effect was overcome by the usual dynamics of competition. However, with only a few companies, such implicit collusion became more likely. When Toys "R" Us and Amazon.com announced a joint venture in August 2000, Toby Lenk, chief executive of eToys, said: "This is great news for us. Last year we had half a dozen competitors. Now our two remaining competitors are merging into one."<sup>29</sup> Then there were none: on March 7, 2001 eToys declared bankruptcy and shut down its online store the following day.<sup>30</sup>

## Branding

Amazon did not seek to compete on price alone. Bezos believed that online customers ranked selection and convenience above price.<sup>31</sup> The company strove to build a brand that became synonymous with e-commerce and customer satisfaction. In many ways, Amazon built its brand riding and helping propel the wave of interest in e-commerce. In 2000, Bezos boasted that his brand was more respected than Volvo in Sweden. Building that kind of brand awareness in users cost a lot of money, but the company hoped to recoup the investment through stronger pricing and other ancillary benefits that accrue to brand leaders.

Amazon was aggressive in its marketing spending. In 1999, the company ranked second among Internet company sales and marketing spenders.<sup>32</sup> By the fourth quarter of 2000, Amazon's marketing spending increased to \$186 million, or 19 percent of sales. Amazon believed that this spending translated into a robust consumer brand. Indeed, together with America Online and Yahoo!, Amazon invariably ranked as one of the top three Web brands. In 2000, Amazon's brand name was more recognizable than Burger King, Wrigley's or Barbie, not to speak of Barnes & Noble.<sup>33</sup> Interbrand, an international brand consultancy based in London, ranks global firms by the value of their brand; Amazon was number 48 worldwide in the 2000 list, just above Motorola and Colgate and well above number 72 Starbucks.

The expansion in Amazon's product categories called for a flexible definition of its brand, which was unprecedented in retailing: traditional retailers were notorious for their efforts to "protect the brand" – and resist change. Further, the use of personalization implied that the brand would mean different things to different people. As a *Brandweek* article<sup>34</sup> put it, "When consumers create the interface and the end product, they will set the brand's parameters and agenda." Christopher Ireland of Cheskin Research commented on personalized branding: "It's not that

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<sup>28</sup> Brynjolfsson and Smith, "Frictionless Commerce?"

<sup>29</sup> Ibid.

<sup>30</sup> K•B Toys and KBkids.com recently purchased most of eToys' inventory, its name and trademarks, and its Web site address.

<sup>31</sup> "Amazon Sells CDs, Videos in Japan," *The Financial Times*, June 14, 2001.

<sup>32</sup> Number one was E\*Trade at \$177.5 million. Amazon spent \$140.1 million, while Charles Schwab rounded out the top three spending \$100.9 million. See, The Intermarket Group.

<sup>33</sup> Katrina Brooker, "Beautiful Dreamer," *Fortune*, December 18, 2000.

<sup>34</sup> Becky Ebenkamp, "We're All Brands Around Here," *Brandweek*, June 21, 1999, p. S15.

there is no meaning behind Amazon.com, it's that there are multiple meanings to people. To you it might be the biggest bookstore, to me it may be the best place to sample music or to sell antiques. It's not the traditional way to communicate a brand."<sup>35</sup> Nick Shoreof of brand agency NickandPaul suggested that this broad definition is precisely what makes Amazon.com a brand: "Amazon is saying, 'we're not a book brand, we're a convenience brand with books, music, auctions, video.' They are locking into a higher need state. We'll see more of that, and it's part Internet-fueled. They realize their competitive set is not just other bookstores. They can go anywhere."<sup>36</sup>

Amazon.com was able to leverage its brand and consumer trust to extract a premium over most of its competitors. According to an MIT study, three of the eight online book retailers in the study had lower prices, on average, than Amazon. The lowest priced retailer, Books.com, had prices that averaged \$1.60 less than Amazon's prices. Books.com's price was lower than Amazon's price 99 percent of the time. Yet, Books.com had only about 2 percent of the online book market while Amazon.com enjoyed a share of more than 80 percent.<sup>37</sup>

### **SERVICE OFFERING EXPANSION: FROM A TO Z**

With marching orders to "get big fast," Amazon did just that. In 1999 and 2000, the combination of money in the bank, inflated currency in the form of steeply rising Amazon shares, and the appeal of its traffic acted as a corporate growth hormone. In 1999, Amazon added sixteen significant feature expansions, including opening an electronics store, introducing the Amazon zShops marketplace, and two auction channels: Sothebys.Amazon.com and Amazon.com Auctions. In 2000, the company added eighteen feature expansions, including launches in France and Japan and it consummated its deal to act as the online channel to Toys "R" Us.

### **Investments and Partnerships**

Beyond these expansions to its own service offering, Amazon invested and partnered with a host of other companies. For many, one ill-fated venture came to epitomize the dot com bubble; it involved a singing dog. In March 1999, Amazon acquired about one-third of the then privately held online pet supply store start-up, Pets.com for \$58 million. This was Amazon's second investment in an e-commerce start-up. In February 1999, Amazon acquired a 40 percent stake in Drugstore.com, an online pharmacy and self-care products store. Throughout 1999 and 2000, Amazon invested in a string of e-commerce retail, service, and infrastructure companies (see **Exhibit 9**). While Amazon sometimes spent its cash in the transactions, the deals were usually executed at (what was then) "sweetheart" valuations and transacted with swapped stock. Investees usually received cross-promotion at Amazon's busy Web site, while Amazon built a portfolio of cheaply acquired interests in a range of high-flying dot coms. Advantageous valuations aside, some wondered about the relevance of these investments to Amazon. While pharmaceuticals and dog food may have seemed unrelated, Amazon saw parallels. Questioned about the Pets.com investment, the company's spokesman Bill Curry said, "We want [to invest] in companies that are absolutely committed to great customer service — that obsess over it as

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<sup>35</sup> Ibid.

<sup>36</sup> Ibid.

<sup>37</sup> Brynjolfsson and Smith, "Frictionless Commerce? An Exploratory Analysis of Internet Pricing Behavior."

much as we do.”<sup>38</sup> In addition to the cash investment, Amazon.com was to help both companies with brand building and marketing, and was to feature a prominent link from Amazon’s front page to Drugstore.com and Pets.com. Both companies were to continue fulfillment on their own.

Amazon’s investment in Pets.com proved ill-starred. The company’s popular ad campaign, featuring a wisecracking singing dog sock puppet proved more successful than the company itself. Although Pets.com launched an IPO in February 2000, opening at \$11 per share, the stock soon tumbled. Investors were troubled by news — for example, that in 1999 the company realized gross margins of –132 percent, losing \$1.32 for every dollar of merchandise it sold.<sup>39</sup> The company went out of business in November 2000, leaving that sock puppet as perhaps the company’s most valuable asset.

## Acquisitions

Going beyond the promiscuous handholding of partnerships, Amazon had executed a series of acquisitions (see **Exhibit 9**) with an eye to improving its back end operations and selection. On the infrastructure side, in 1998 Amazon spent \$280 million in stock to acquire two companies that offered to enhance Amazon’s personalization capabilities. PlanetAll offered users a unique Web-based address book, calendar, and reminder service; at the time of acquisition, it had 1.5 million members. Amazon also bought Jungle Corp., a Sunnyvale, California-based provider of advanced Web-based virtual database (VDB) technology that could help shoppers navigate the millions of products on the Internet. In 1999, Amazon acquired two San Francisco Bay Area companies: Accept.com, an e-commerce company then developing longer-range solutions to simplify person-to-person and business-to-consumer transactions on the Internet, and Alexa Internet, which developed a free advertising-supported Web navigation service that worked with Internet browsers to provide information about the sites being viewed and suggest related sites.

In 1999, Amazon bought Exchange.com, an exchange specializing in antiquarian and hard to find books. At the time of acquisition, Exchange.com featured over 9 million listings. The service helped dealers of rare books to upload their inventories and manage their businesses online quickly and easily. The site also automatically matched want-ads with newly available books and notified potential buyers that sought-after books had been found. Included in the deal was MusicFile.com, a marketplace and community for collectors of hard-to-find music and memorabilia, then with over 3 million items for sale by retailers, dealers, and private collectors around the world. MusicFile.com offered several features, including discussion forums and free home pages, fully commerce-enabled online storefronts, and a want-ad posting and matching service.

## Virtual Middleman

In 1999, Amazon continued to expand its category offerings, adding products such as electronics, toys, and software to its U.S. operations and music to its European operations. That year the company also added entirely new businesses, introducing co-branded auctions and zShops Marketplaces, whose revenue models were fundamentally different from Amazon’s initial storefront model. The storefront model, while possibly more efficient than brick and mortar business models, still had a significant capital component, since the company had to make

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<sup>38</sup> Michelle V. Rafter, “Pets.com Fetches Investment From Amazon.com,” *The Industry Standard*, March 29, 1999.

<sup>39</sup> Bernhard Warner, “A Dog of a Debut,” *The Industry Standard*, February 28, 2000.

investments in inventory and fulfillment. In its new businesses, Amazon acted as agent, facilitating transactions and taking a fee.

Amazon's zShops were a virtual shopping mall, enabling any seller to quickly set up an electronic storefront at Amazon.com. Amazon charged sellers \$39.99 a month to list up to five thousand items, \$0.10 for every additional item listed, and a completion fee of 1.25 to 5 percent of the final price of each transaction. zShops products were accessed through Amazon searches, making them available to Amazon's vast customer base. In addition, zShops merchants could select products from Amazon's Books, Music, and Video stores and have them linked to their own products; the link would appear next to the Amazon listing.<sup>40</sup>

Amazon Payments, the company's credit card processing system, eliminated the hassle of checks and money orders, allowing sellers to accept credit card payments through Amazon's fast and easy 1-Click payment system. In return, sellers paid 4.75 percent of the purchase price plus a sixty cent transaction fee.

By the end of 1999, Amazon began to leverage its platform and traffic by creating the Amazon Commerce Network ("ACN"), a portal for other retailers through which Amazon could take fees and equity in addition to direct investments. From 1998 to the end of 2000, Amazon opened thirty-one stores selling 28 million items in the aggregate — everything from books to barbecues. Amazon even moved into auto sales in 2000, taking a 5 percent stake in Livermore, California-based Internet auto dealer Greenlight.com. In August 2000, Amazon launched a store on its site that sold new cars through Greenlight.<sup>41</sup>

In August 2000, Amazon announced a ten-year agreement with Toysrus.com to develop a co-branded offering. Toysrus.com was to use its knowledge of the toy vertical to manage merchandising, procurement, and inventory, while Amazon was to manage the front end online store as well as fulfillment and customer service. Under the agreement, Amazon.com was to be compensated through a combination of periodic fixed payments, per unit payments, and single-digit percentage of revenue. Amazon.com also received warrants entitling it to acquire 5 percent of Toysrus.com. Toys "R" Us would promote the venture in its stores and Amazon would own the revenues, the costs of fulfillment, and the online store. In May 2001, Amazon and Toys "R" Us affiliate Babies "R" Us launched a Babies "R" Us Web store under the same terms of the earlier agreement.

## **Patented Friends**

Amazon was the first Internet retailer to operate an affiliates program that allowed owners of other Web sites to refer customers to Amazon in exchange for a referral fee.<sup>42</sup> On June 27, 1997, in an effort to protect its "innovative proprietary technology," Amazon applied for a patent for its affiliates program and was granted the patent in February 2000.

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<sup>40</sup> This option was not available for Amazon's top 500 books, CDs, and videos.

<sup>41</sup> Troy Wolverton, "CarsDirect to acquire Amazon-backed Greenlight," CNET News.com, January 31, 2001. By January 2001, rival online car dealer CarsDirect acquired Greenlight and Greenlight's marketing relationship with Amazon.

<sup>42</sup> See <http://www.j-bradford-delong.net/Comments/Kaching.html> for a discussion of the Amazon affiliates program from the point of view of an individual affiliate.

Affiliates could earn up to 15 percent of the sale price on individually linked books that were featured on the affiliate's site and 5 percent on anything else that was purchased through the affiliate's links, including CDs, videos, DVDs, toys, consumer electronics, and more. It was free to join, and there were no hidden quotas or performance tiers to reach before members started earning the highest level of referral fees.<sup>43</sup> By the first quarter of 2001, Amazon had six hundred thousand affiliates.

By the first quarter of 2001, the partnerships started to pay off. Amazon's alliances, including its agreements with Toys "R" Us and Drugstore.com, generated gross profit margins of 67 percent, compared to 23 percent gross margins across the rest of the company.<sup>44</sup>

## **BRICKS, BOOKS, AND COFFEE VERSUS CLICKS**

In April 2001, Amazon won a symbolic victory when Borders Books decided to close its struggling online channel and partnered with Amazon to serve its online customers. Borders.com, with \$27 million in sales in 2000, was a distant third behind barnesandnoble.com with \$320 million in sales, and leader Amazon with \$1.7 billion in Book, Music and Video sales. Under the agreement, the Borders.com Web site was re-launched as a co-branded Web site powered by Amazon's e-commerce platform. Amazon provided inventory, fulfillment, site content, and customer service on the new site while Borders used the site to strengthen online customer relationships and drive traffic to its brick-and-mortar stores via store location information and in-store event calendars. Amazon received a one-time payment for the creation of the site and shared a percentage of the Borders.com revenue with Amazon. No equity was exchanged.

### **Borders Background**

In many respects, Borders represented the terrestrial version of Amazon's online core Books, Music, and Video categories. Borders began in 1971 when brothers Tom and Louis Borders opened a bookstore in the college town of Ann Arbor, Michigan. The store became known for its wide selection, support of book-loving "browsers," and knowledgeable, customer-friendly salespeople. The approach was a hit and the Borders brothers started opening bookstores in other parts of the United States; in the early nineties it expanded its selection to include music. In 1992, the Borders brothers sold the company to Kmart Corporation. In 1995, Borders Group bought its stock back from Kmart, merged with Waldenbooks, a chain of mall-located bookstores, and raised new capital through an IPO.

The Borders Group was the second largest operator of book superstores and the largest operator of mall-based bookstores based on sales and number of stores. As of January 2001, Borders Group operated 349 superstores (mostly under the Borders name), including nine in the United Kingdom, two in Australia, and one each in Singapore, New Zealand, and Puerto Rico. Borders Group also operated 869 mall-based and other bookstores (mostly under Walden Books) and 31 bookstores under the Book Etc. name in the United Kingdom. Borders superstores alone generated \$2.09 billion in sales in 2000. (Financial data for the Borders Group are summarized in **Exhibit 10**).

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<sup>43</sup> <http://www.amazon.com/exec/obidos/subst/associates/join/faq-overview.html/102-8210486-7665731>.

<sup>44</sup> Andrew Edgecliffe-Johnson, "Amazon links start to pay off," *Financial Times*, April 25, 2001.

The company's typical Borders superstore format was 27,500 square feet, exceeding that of its main competitor, Barnes and Noble. Borders' superstores carried the largest number of stock-keeping units in the business, averaging 130,000 book titles and 57,000 music titles.<sup>45</sup> In all, Borders Group operated over 9.3 million square feet of Borders superstores all over the world.<sup>46</sup> Borders superstores provided a unique, high-quality retail shopping experience that extended the model of the original Ann Arbor store to the entire chain: wide selection, a knowledgeable and friendly salesforce, chairs and couches strategically placed in areas in which customers leisurely browsed the books, music and videos, a magazine stand, and daily events such as book and poetry readings, musical recitals, and children's events. Another feature was Café Espresso, a 1500 square foot area next to the newsstand that served its own private-label coffee, which gave the customer an opportunity to browse newspapers and magazines while enjoying coffee. Although it directly generated only 5 percent of sales in a typical superstore, it increased customer traffic and extended the amount of time customers stayed in the store.

Waldenbooks was the largest mall-based bookstore in the United States, designed to meet the book buying needs of the rushed mall shopper. Merchandise focused on new releases, bestsellers, and other popular books (business, cooking, general interest, etc.). The average store size was approximately 3,300 square feet, carrying fifteen to twenty-five thousand titles (for malls with only one bookstore, the store size was larger, 5,000 to 8,000 square feet, and these stores carried thirty to forty thousand titles). As the book retailing industry moved toward the superstore concept, small mall-based bookstores became less attractive, so that while the superstores were expanding, Waldenbooks became a shrinking "cash cow."

Borders' first priority was to build additional superstores, both in the United States and internationally. In 1997, it acquired Books etc., a U.K.-based book retailer that operated thirty-one stores ranging in size from 650 to 13,000 square feet located primarily in central London or in various U.K. airports. In addition, Borders built large superstores in Britain, Australia, and Singapore, increasing the reach of its "accessible sophistication" approach.

Borders sales were highly seasonal, similar to Amazon's (see **Exhibit 11**). Borders prided itself on its Borders Expert System, which was used to manage inventory at its distribution centers vis-à-vis the stores. Borders believed that its centralized distribution system, combined with Borders' use of its proprietary Expert System to manage its supply chain, significantly enhanced its operational performance. Books were shipped directly from the publishers to one of Borders' thirteen distribution centers worldwide. Approximately 95 percent of the books carried by Borders and 70 percent of the Waldenbooks inventory were processed through Borders' distribution facilities.<sup>47</sup> (**Exhibit 12** compares Borders' inventory turns to Amazon's.)

## Clicks and Mortar

Regardless of how successful the Borders physical stores had become, the attention captured by online bookselling rivals compelled Borders to respond. Not comfortable with a standalone online channel, Borders devised a convergence strategy to leverage its physical stores with new Internet assets. On May 7, 1998, a year after Barnes and Noble and three years after the debut of Amazon, Borders jumped into the online breach and opened borders.com, selling books, music,

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<sup>45</sup> J. M. Feiner, "Borders Group," Lehman Brothers, Inc., August 22, 2000.

<sup>46</sup> D. D. Barry, "Borders Group," Merrill Lynch Capital Markets, March 16, 2001.

<sup>47</sup> Borders Group, Inc. 10K, 2000, p. .5.



and videos. The company spent \$15 million to build a distribution center in Tennessee to service the business.

In addition, Borders launched a network of in-store video kiosks, called “Title Sleuths,” to enable shoppers to access Borders’ entire inventory at all location at all times.<sup>48</sup> Borders began by testing a handful of kiosks that gave shoppers access to inventory in that particular outlet. Eventually, the terminals were connected to Borders’ central inventory database, so the seven hundred thousand titles it held in inventory could be available at all of its stores.<sup>49</sup> Rick Vanzura, Borders’ president of Internet and fulfillment services said: “We’re building interfaces between store systems and the back end.”<sup>50</sup>

Borders also experimented with on-demand paperback book printing. In June 1999, it acquired a 20 percent interest in Sprout Inc., an Atlanta-based digital book wholesaler. Borders aimed to provide while-you-wait printing of obscure titles, printing high-quality paperbacks in about 15 minutes. At the time of the deal, Sprout offered about 1,300 titles. Each printing installation cost about \$40,000 to buy, but leased for \$1,000 per month.<sup>51</sup>

But investors did not like the Borders blend and felt Borders was doing too little, too late. Although its store sales rose 20 percent and net profits increased 40 percent in 1999, the company’s stock continued to fall as investors worried about Borders’ Internet strategy. In 1999, Borders captured only 1 percent of the \$1.6 billion online book market. This paled compared to Amazon’s 80 percent share and the 15 percent share achieved by closer rival barnesandnoble.com.<sup>52</sup> As portfolio manager Jeff Matthews put it, “The first-mover advantage is staggering and decisive, and Borders missed it.”<sup>53</sup>

Robert DiRomualdo, Borders’ chief executive, defended the strategy of focusing on Borders’ superstores, both in the United States and internationally: “We have not succumbed to the frenzy of doing a bunch of \$40 million deals with search engines and trying to acquire customers at any cost. When you’re trying to drive a bottom line and develop your company, it’s difficult to throw everything out the window and say, ‘Whatever we think this piece of business will be — say it’s going to be 15 percent of the market in five or six years — do we literally tank the company to go out and build share in that business?’”<sup>54</sup> Rick Vanzura, Borders’ senior vice president in charge of Borders.com, pleaded: “Folks are so focused on the stand-alone e-commerce business, which is estimated to reach roughly 15 percent of the market eventually... We could be the dominant force for the other 85 percent, when you bring the site together with the compelling physical superstore experience.”<sup>55</sup>

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<sup>48</sup> By 2001, Title Sleuth generated 800,000 searches per week and helped drive up special-order sales in the year; special orders represented 3 percent of total revenues in fiscal 2001. See “Sales rise 10% at Borders, Earnings Dip,” *Publishers Weekly*, March 26, 2001.

<sup>49</sup> Margaret Ann Cross, “Borders’ online traffic is borderline disastrous, but Rick Vanzura aims to capture his fair share,” *Internet Retailer*, July 1999.

<sup>50</sup> Gregory Dalton and Justin Hibbard with Eileen Colkin, “Virtual Shopping Gets Real,” *Information Week*, May 17, 1999.

<sup>51</sup> “Borders Deal to Allow Book-Printing in Stores,” *Atlanta Journal & Constitution*, June 2, 1999.

<sup>52</sup> “Can Borders Turn the Page?,” *Business Week*, April 3, 2000.

<sup>53</sup> “At last, an Internet strategy for Borders,” *U.S. News and World Report*, April 12, 1999.

<sup>54</sup> “Borders Overboard?” *Forbes*, September 21, 1998.

<sup>55</sup> *Ibid.*

The market remained unconvinced. By March 2000, its share price dogged by the poor performance of its online group and by senior management turnover, Borders hired investment bank Merrill Lynch to explore “strategic alternatives,” including selling the company. No buyers were found.

By March 2001, Borders formed an alliance with book distributor Ingram Book Group for distribution and fulfillment services for Borders Group’s special order and online sales. The transaction included the sale to Ingram of most of the seven hundred thousand title book, video, and music inventory housed in Borders Group’s 200,000 square foot Fulfillment Center in La Vergne, Tennessee, which handled fulfillment for Borders.com. Borders took a related one-time, after-tax charge of approximately \$15 to \$20 million to write-down the assets used by the fulfillment center, including warehouse equipment, hardware and software, and a reduction in recorded inventory.

Partly as a result of the Ingram agreement, Borders expected its Internet losses to decrease from \$.23 per share in 2000 to \$.15 per share in 2001.<sup>56</sup> The next month, Borders announced its deal with Amazon.

## CONCLUSION

In just a few years, Amazon grew from a tiny warehouse in Seattle to the world’s preeminent Internet retailer with facilities across the United States, Europe and Japan. Beginning largely as an Internet order-taker for books, the company grew into an online mega mall supported by a network of distribution centers. Amazon’s early high profile stock market success, supported by impressive sales growth, came to epitomize the go-go days of Internet valuations of the late 1990s. Even after the decline and fall of many of its online cousins, Amazon grew apace. By 2001, under the gravity of investor focus on profitability, however, Amazon’s cost structure clearly dragged on the company.

What should Amazon do next? Should it continue its international expansion, or perhaps retrench to allow for more profitable operations? Should it add product categories or cut back to its Books, Music and Video core? Could Amazon use its brand strength and sophisticated personalization algorithms to individually price its way into the black? Or, could Amazon steal a page from Wal-Mart and focus on supply chain management to part the sea of red ink? Alternatively, should Amazon return to its virtual roots and outsource order fulfillment, allowing it to focus on its front-end Electronic Commerce platform? When Amazon’s share price was rising, few cared. But in 2001, with many of Amazon’s dot-com peers resting in peace, it mattered more than ever.

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<sup>56</sup> Borders press release, 15 March 2001.

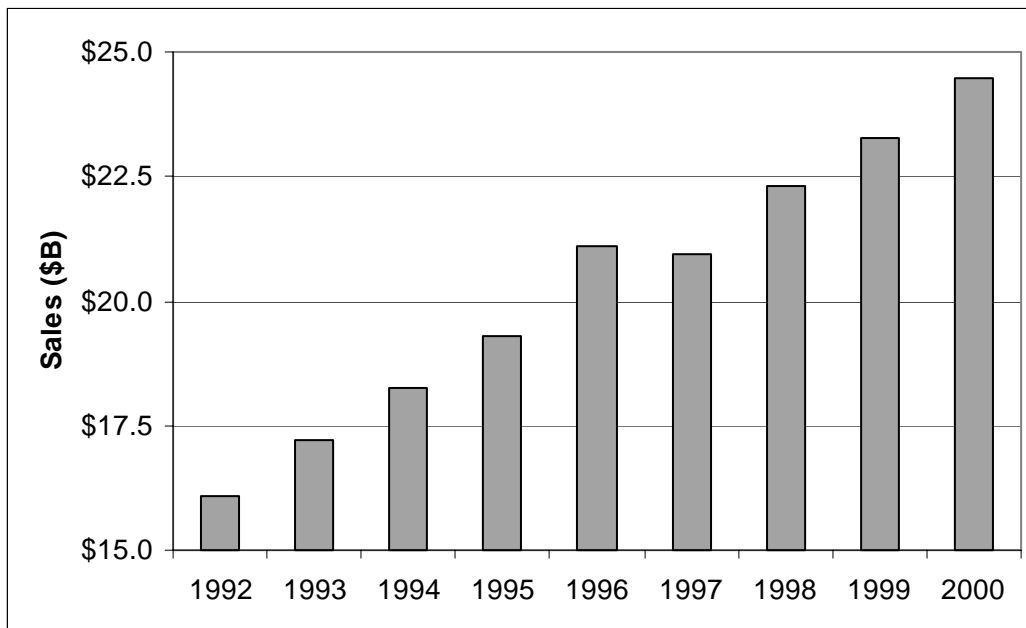
## Appendix A: Book Retailing in the United States

In 2000, total spending on books in the United States reached \$24.5 billion, up 5.2% from 1999 and growing on average at 5.3% annually since 1992.<sup>57</sup> Book buyers purchased about 1.6 billion units, roughly the same number as in 1999.<sup>58</sup> In 2000, online book sales captured 6 percent of the entire market compared to 5.4 percent in 1999 and 1.9 percent in 1998.<sup>59</sup>

In 2000, the market share of bookstores in book sales continued to slip. In particular, the market share of large chain bookstores fell to 24 percent in 2000, down from 24.6 percent in 1999, while the market share of independent bookstores (including small chains) remained unchanged at 15 percent in 2000. Web-based retailers and nontraditional booksellers experienced a larger growth increase than the traditional bookstore in 2000.<sup>60</sup>

General adult trade books accounted for more than two-thirds of all books bought in 2000. Books bought for children under 14 years of age comprised 28 percent of total book purchases in 2000, and the teenage/young adult market (14-17 years) represented about 3 percent. The children's segment struggled in 2000, as buying slipped by 4 percent. Exhibit A-1 below shows the growth of the overall market, and Exhibit A-2 shows the percentage on units sold through various channels.

**Exhibit A-1: Book Sales in the United States (in \$ billion), 1992–2000.**



Source: *Book Industry Trends 2000* and authors' estimates.

<sup>57</sup> The number of books sold grew at about half this rate.

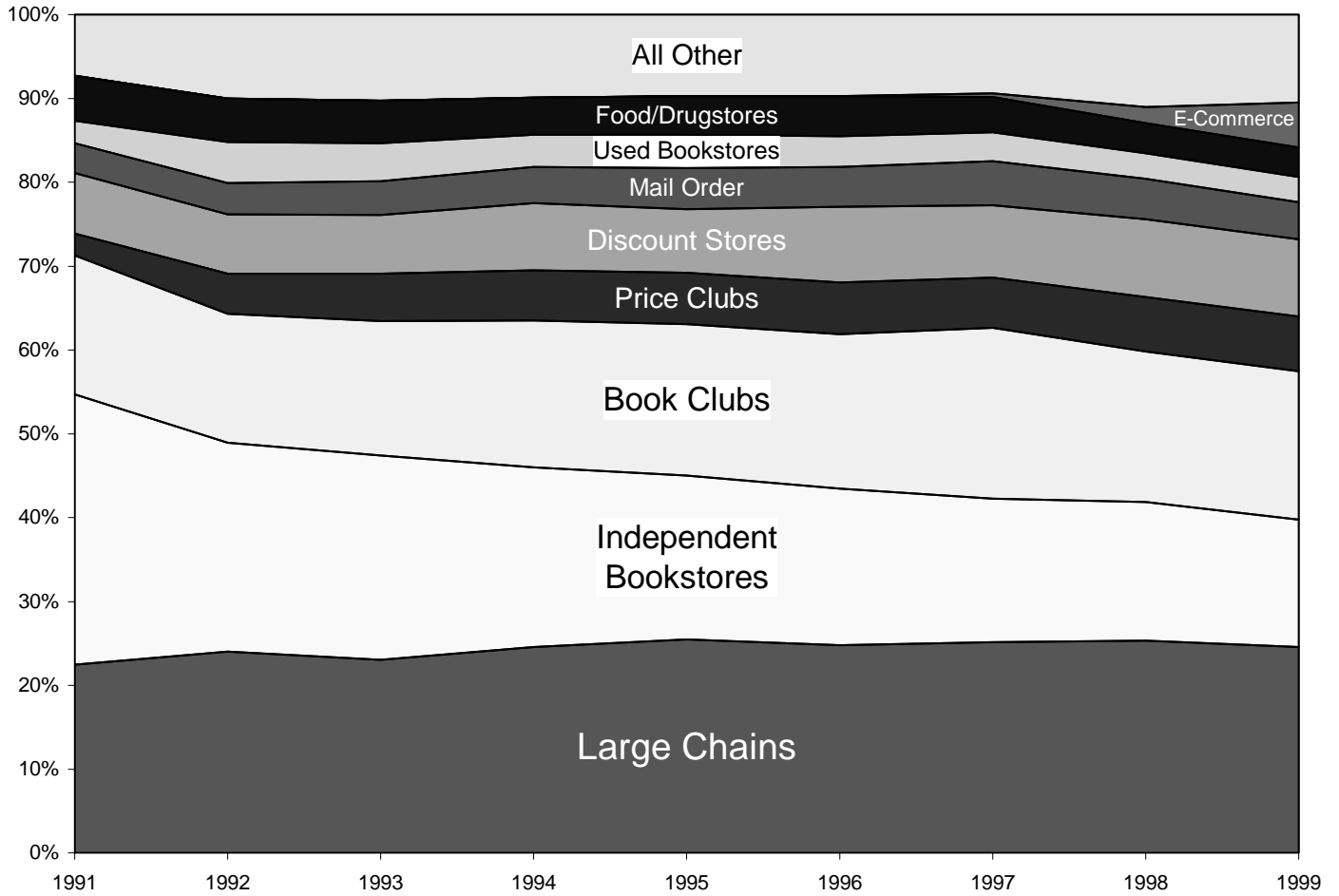
<sup>58</sup> According to the 2000 Ipsos-NPD "BookTrends" study, a survey of more than 12,000 nationally representative households. Cited in "Book Sales Flat in 2000," American Booksellers Association, Press Release, March 8, 2001.

<sup>59</sup> Sandeep Junnarkar, "Book buying online surges, captures market share," CNET News.com, June 7, 2000.

<sup>60</sup> "Book Sales Flat in 2000," American Booksellers Association, Press Release, March 8, 2001.

### Appendix A (continued): Book Retailing in the United States

Exhibit A-2: Distribution Channels for Book Sales in the United States, 1991–1999.



Source: NPD Research Consumer Survey, 2000.

## Appendix B: Collaborative Filtering

Jeff Bezos pinned great hopes on his company's ability to create a "soul mate," a mechanism that analyzes data generated by previous purchases and searches to suggest book and music titles that are likely to be interesting to visitors. In 2001, Bezos and others hoped that this technology, known as collaborative filtering, would increase the usefulness of Internet retailing and help move e-tailers away from the discount bin and toward the value added sellers.

As computer processing power increased in the 1990s, researchers began to develop algorithms to help predict consumer behavior. The goal behind collaborative filtering was to replicate and automate the process of "word-of-mouth" recommendations by which people suggest products or services to one another.<sup>61</sup> Collaborative filtering was particularly useful in helping users choose between thousands or millions of options that were too complex to analyze individually.

Most collaborative filtering systems were comprised of a series of general steps. First, a large group of people's preferences were registered. Using a similarity measure, a subgroup of people were selected whose preferences were similar to the preferences of the person who sought advice. A weighted average of the preferences for that subgroup was then calculated.<sup>62</sup> The resulting preference function was used to recommend options on which the advice-seeker had expressed no personal opinion as yet. If the similarity metric had indeed selected people with similar tastes, the chances were great that the options that were deemed desirable by that group would also be appreciated by the advice-seeker. An application typically recommended books, music CDs, or movies. More generally, the method could be used for the selection of documents, services, or products of any kind.<sup>63</sup>

The main liability with existing collaborative filtering systems was that it required the collection of preferences. In order to be reliable, most systems needed a large number of people (typically thousands) to express their preferences about a relatively large number of options (typically dozens).<sup>64</sup> However, the system only became useful after a critical mass of opinions had been collected. Users were not motivated to express detailed preferences in the beginning stages (e.g., by rating dozens of book titles on a 10 point scale), when the system could yet help them.<sup>65</sup>

Amazon, for example, avoided this start-up problem by collecting preferences that were *implicit* in people's actions. Customers who ordered books or music from Amazon implicitly expressed their preference for the titles they bought over the titles they did not buy. Customers who bought the same book or CD were likely to have similar preferences for other titles as well. Similarly, collaborative filtering could use customers' behavior while surfing a site to infer their tastes. Search behavior, the amount of time a customer spent on a given product, and similar metrics could be used to indirectly infer a preference without requiring tedious data entry on the customer's part.

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<sup>61</sup> Principia Cybernetica F. Heylighen, modified January 31, 2001.

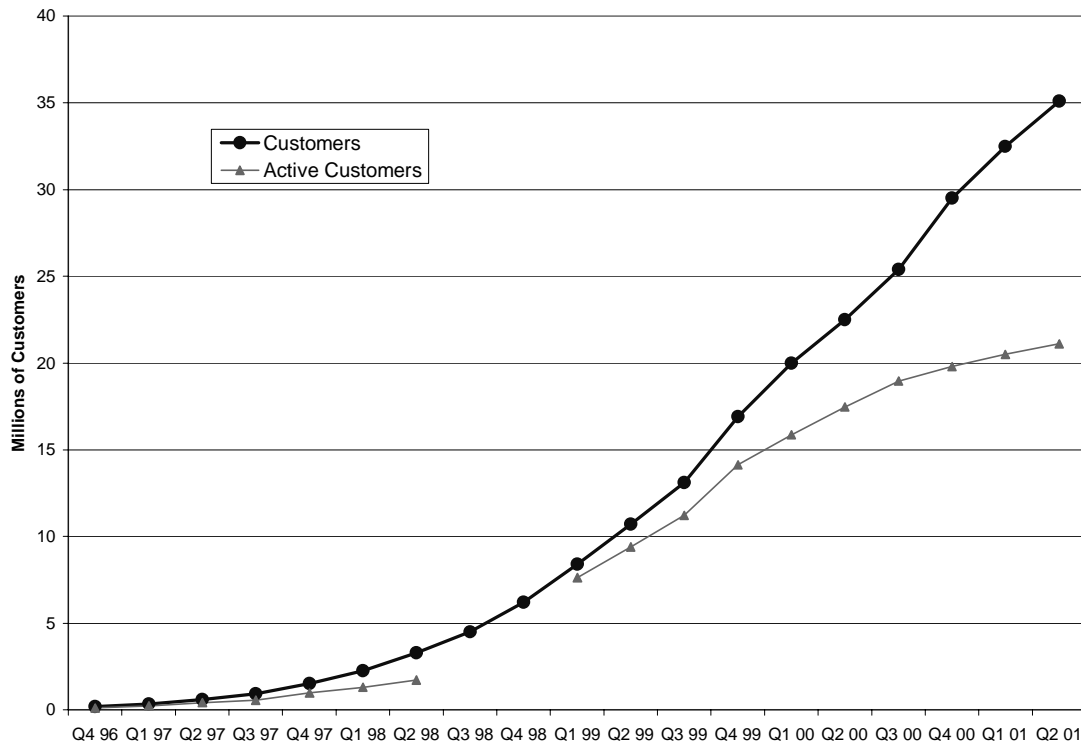
<sup>62</sup> Typical similarity metrics are Pearson correlation coefficients between the users' preference functions and (less frequently) vector distances or dot products.

<sup>63</sup> Principia Cybernetica F. Heylighen, modified January 31, 2001.

<sup>64</sup> Even then, most systems were not highly reliable.

<sup>65</sup> Principia Cybernetica F. Heylighen, modified January 31, 2001.

**Exhibit 1:**  
**Amazon.com Worldwide Customer Growth, Quarterly Data (in millions)**



*Note:* Active Customers are customers who ordered in the trailing twelve months. Active customer data for the last two quarters of 1998 are not available.

Source: Company reports and authors' estimates.

**Exhibit 2:**  
**Amazon.com Income Statements and Operating Data**

**(A) Income Statements, 1994 – 2000 (in \$ thousands)**

	Year Ended December 31,						
	2000	1999	1998	1997	1996	1995	1994
Net sales	2,761,983	1,639,839	609,819	147,787	15,746	511	0
Cost of sales	2,106,206	1,349,194	476,155	118,969	12,287	409	0
Gross profit	655,777	290,645	133,664	28,818	3,459	102	0
<i>Operating expenses:</i>							
Marketing and fulfillment	594,489	413,150	132,654	40,077	6,081	200	0
Technology and content	269,326	159,722	46,424	13,384	2,377	171	38
General and administrative	108,962	70,144	15,618	6,741	1,408	35	14
Stock-based compensation	24,797	30,618	1,889	1,211	36	0	0
Amortization of goodwill and other intangibles	321,772	214,694	42,599	0	0	0	0
Impairment-related and other	200,311	8,072	3,535	0	0	0	0
Total operating expenses	1,519,657	896,400	242,719	61,413	9,902	406	52
Loss from operations	(863,880)	(605,755)	(109,055)	(32,595)	(6,443)	(304)	(52)
Interest income	40,821	45,451	14,053	1,901	202	1	0
Interest expense	(130,921)	(84,566)	(26,639)	(326)	(5)	0	0
Other income (expense)	(10,058)	1,671	0	0	0	0	0
Non-cash investment gains and losses	(142,639)	0	0	0	0	0	0
Net interest income (expense) and other	(242,797)	(37,444)	(12,586)	1,575	197	1	0
Equity in losses of equity-method investees	(304,596)	(76,769)	(2,905)	0	0	0	0
<b>Net loss</b>	(1,411,273)	(719,968)	(124,546)	(31,020)	(6,246)	(303)	(52)

Source: Company reports.

**(B) Additional Quarterly Data**

	2000				2001		
	1999 Q4	Q1	Q2	Q3	Q4	Q1	Q2
<i>Results of Operations:</i>							
Gross margin	13.0%	22.3%	23.5%	26.2%	23.1%	26.1%	26.9%
Fulfillment cost as a % of net sales (a)	15.8%	17.3%	15.2%	15.1%	13.5%	14.0%	12.8%
<i>Customer Data (customers in millions):</i>							
New customers	3.8	3.1	2.5	2.9	4.1	3	2.6
Cumulative customers	16.9	20	22.5	25.4	29.5	32.5	35.1
Active customers -- TTM (b)	14.1	15.9	17	18.2	19.8	20.5	21.1
New customer cost -- international	0.6	0.6	0.6	0.9	1.1	1	0.9
Cumulative customers -- international	1.8	2.4	3	3.9	5	6	6.9
Active customers -- international, TTM (b)	1.7	2.2	2.7	3.3	4.2	4.9	5.4
Acquisition cost per new customer	\$19	\$13	\$17	\$15	\$13	\$12	\$14
US customers purchasing from non-BMV (c) stores	24%	11%	13%	14%	36%	19%	21%
<i>Balance Sheet Items:</i>							
Total Assets (\$M)	\$1,813	\$2,722	\$2,451	\$2,244	\$2,135	\$1,470	\$1,345
Cash and marketable securities (\$M)	\$706	\$1,009	908	\$900	\$1,101	\$643	\$609
Inventory, net (\$M)	\$221	\$172	\$172	\$164	\$175	\$156	\$129
Inventory -- % of net sales	33%	30%	30%	26%	18%	22%	19%
Inventory turnover -- annualized	13.9	9.1	10.3	11.2	17.7	12.6	13.7

(a) Amazon defines fulfillment costs as "those costs incurred in operating and staffing our fulfillment and customer service centers, including costs attributable to receiving, inspecting and warehousing inventories; picking, packaging and preparing customers' orders for shipment; credit card fees; and responding to inquiries from customers.

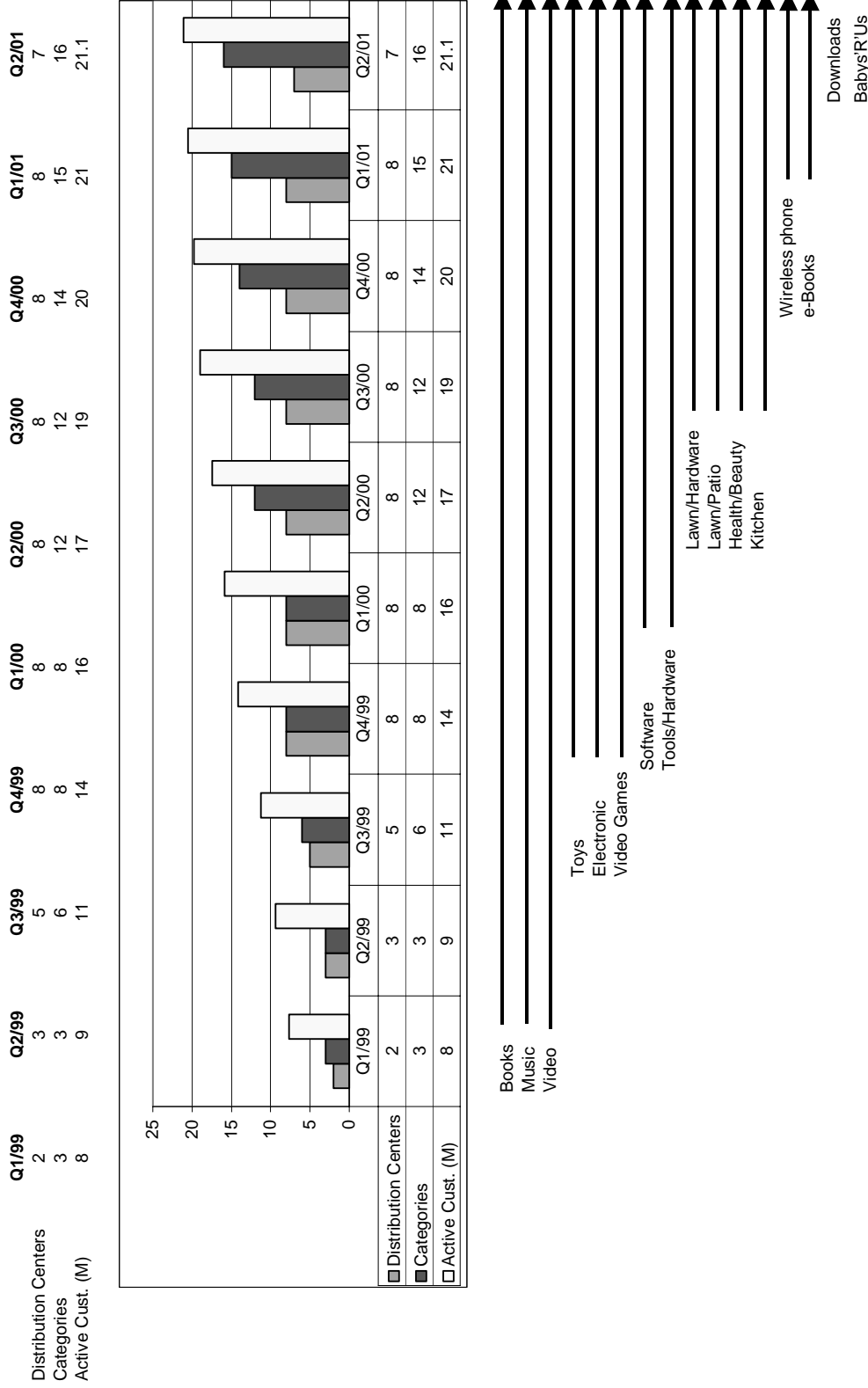
(b) Trailing Twelve Months

(c) BMV stands for Books, Music and Video.

Source: Adapted from company reports

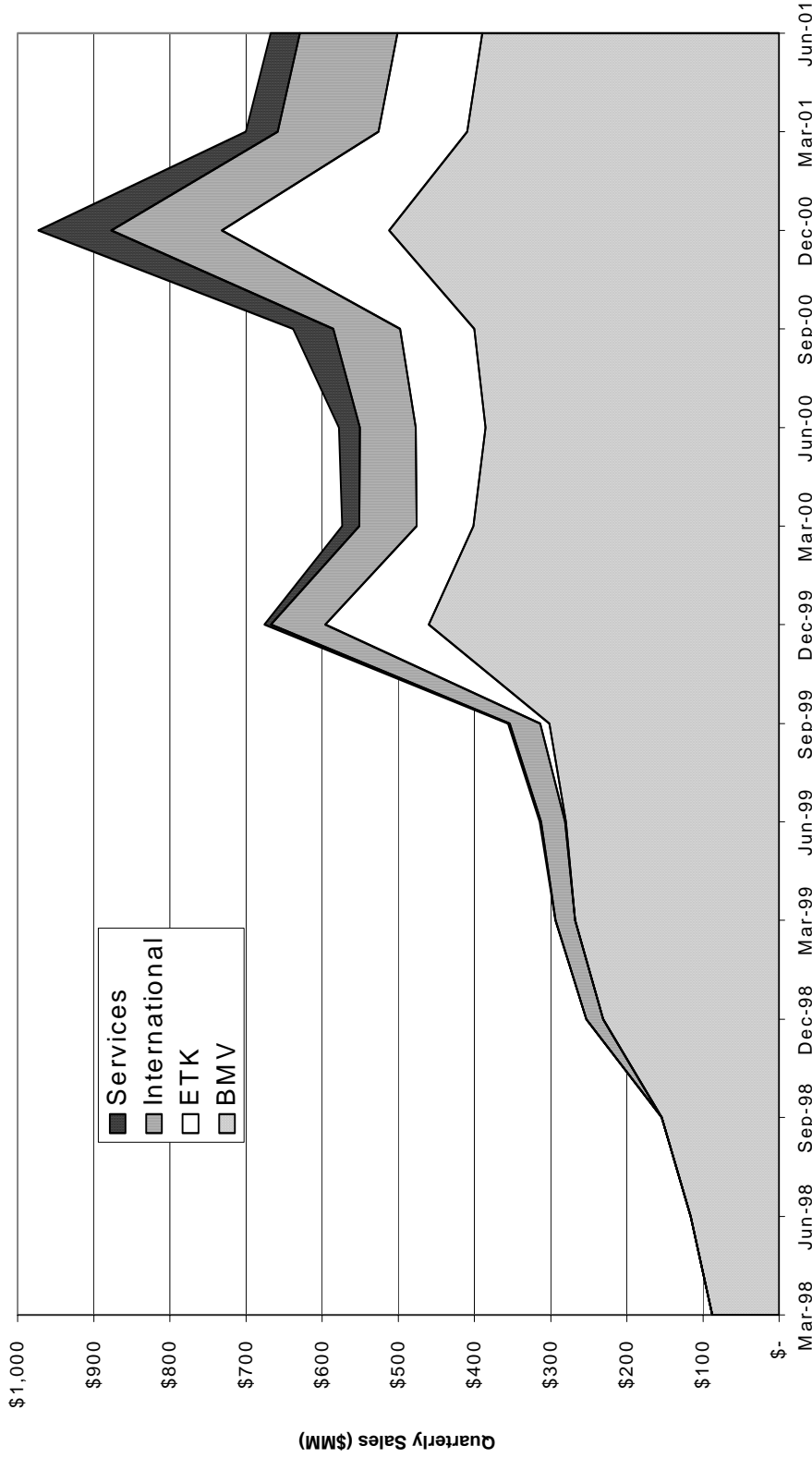


**Exhibit 3:  
Expansion of Amazon's Product Categories, Active Customers, and Distribution Centers**



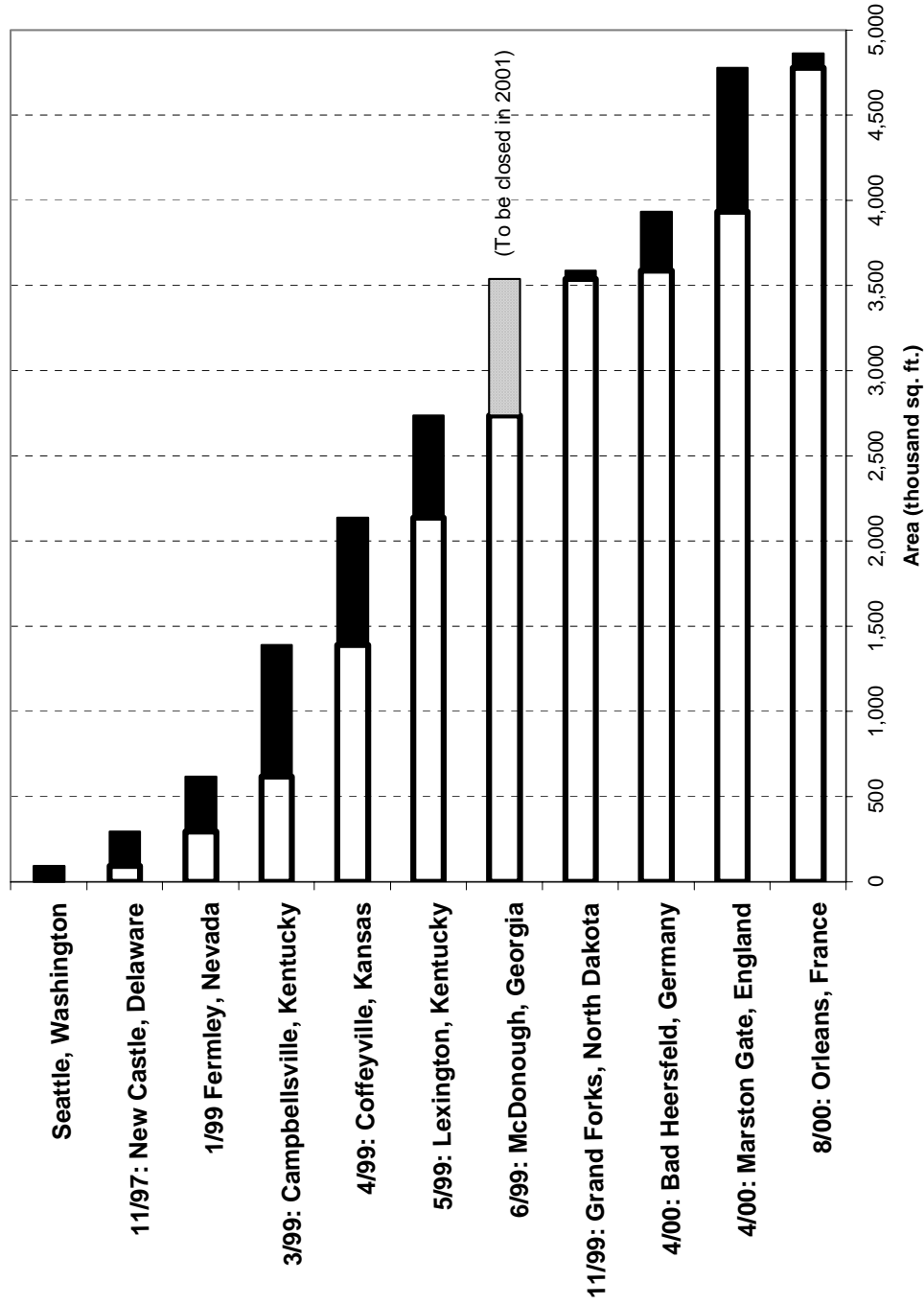
Source: Adapted from company reports and presentations.

Exhibit 4: Amazon's Sales by Segment



Segment definitions: Amazon's *BMV* (Books, Music, and Video) segment consists of Amazon's online stores for books, music, and DVDs/videos associated with retail sales from [www.amazon.com](http://www.amazon.com), including the sale of similar products for other retailers that were made through Amazon. The *ETK* (Electronics, Tools, and Kitchen) segment consists of [www.amazon.com](http://www.amazon.com) retail sales of other products (such as consumer electronics, camera and photo items, software, computer and video games, wireless products, tools and hardware, outdoor living items, kitchen and houseware products, and toys) sold by or through Amazon. The *Services* segment includes Amazon's business-to-business strategic relationships such as its strategic alliance with Toysrus.com, advertising revenues, and amounts earned from Amazon Auctions, zShops, and Payments. The *International* segment encompasses the retail sales of Amazon's international sites. Source: Company reports

**Exhibit 5: Amazon's Distribution Center Buildup**



Note: White bars represent cumulative area prior to addition of DC; each shaded bar represents the area of the newly-added DC. In January 2001, Amazon announced the closure of its distribution center in McDonough, Georgia.

Source: Adapted from company reports and presentations.

## Exhibit 6: Amazon.com Homepages for Two Different Users

The homepages were visited by both users simultaneously, on June 16, 2001, at 10:15 pm.

The image displays two screenshots of the Amazon.com homepage as seen in Microsoft Internet Explorer. Both screenshots are taken from the same URL: <http://www.amazon.com/exec/obidos/subst/home/home.html/102-5426718-5103362>.

**Top Screenshot (User: Haim Mendelson):**

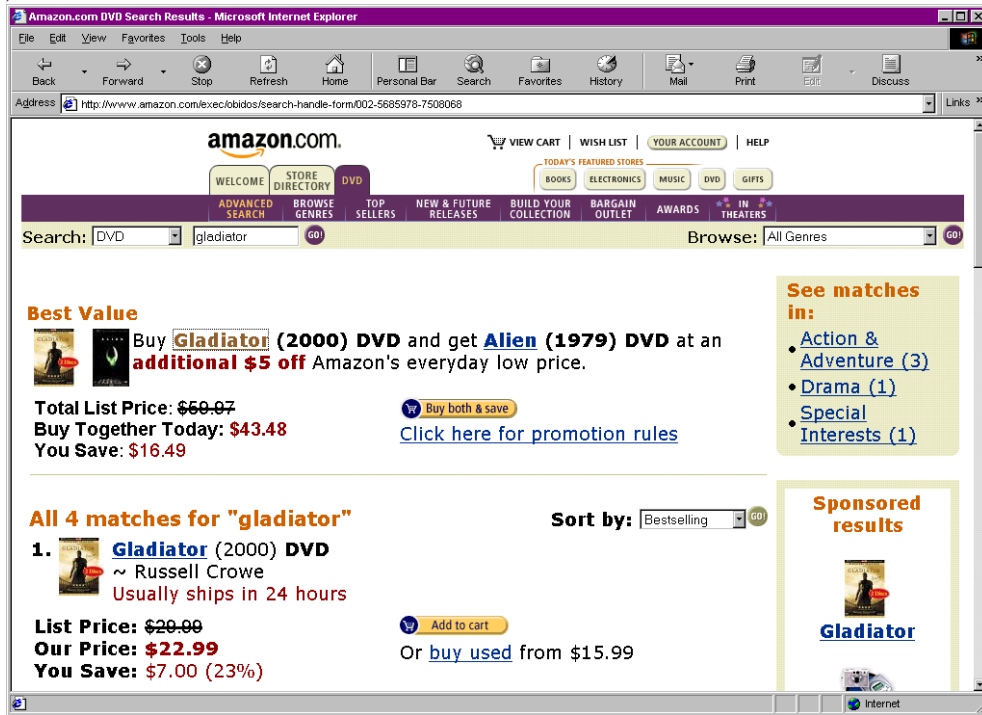
- SEARCH:** A search bar with "All Products" selected and a "GO!" button.
- BROWSE:** A vertical list of categories: Atlantis Store, Your Favorites, Books, Electronics, Music, Camera & Photo, Health & Beauty, Tools & Hardware, Kitchen & Housewares, In Theaters, DVD, Computer & Video Games, Baby, and Toys & Games.
- Personalized Greeting:** "Hello, Haim Mendelson. We have [recommendations](#) for you. (If you're not Haim Mendelson, [click here.](#))"
- 3rd Music Sale:** "Save on more than 2,000 CDs as low as \$9.99 in our [Third Anniversary Sale!](#)"
- Disney's Atlantis:** "Disney's Atlantis: The Lost Empire Is in Theaters Now! Get Showtimes" with a description of the film and a link to the [Atlantis Store](#).
- Your Recommendations:** "Permission Marketing" by Seth Godin, described as "one of the world's foremost online promoters" offering advice on advertising.
- More Recommendations:** "The Client" by John Grisham.
- Save 50% on select Cuisinart appliances.**
- New for You:** "Haim Mendelson, here's what's [New for You.](#) (If you're not Haim Mendelson, [click here.](#))" with a "New Releases" list including "Computers & Internet", "Alternative Rock", "Cookware", "Classics", and "Activities & Learning".
- Movers & Shakers:** "2,971% Enemy at the Gates DVD ~ Jude Law" and "6,687%".

**Bottom Screenshot (User: Philip Meza):**

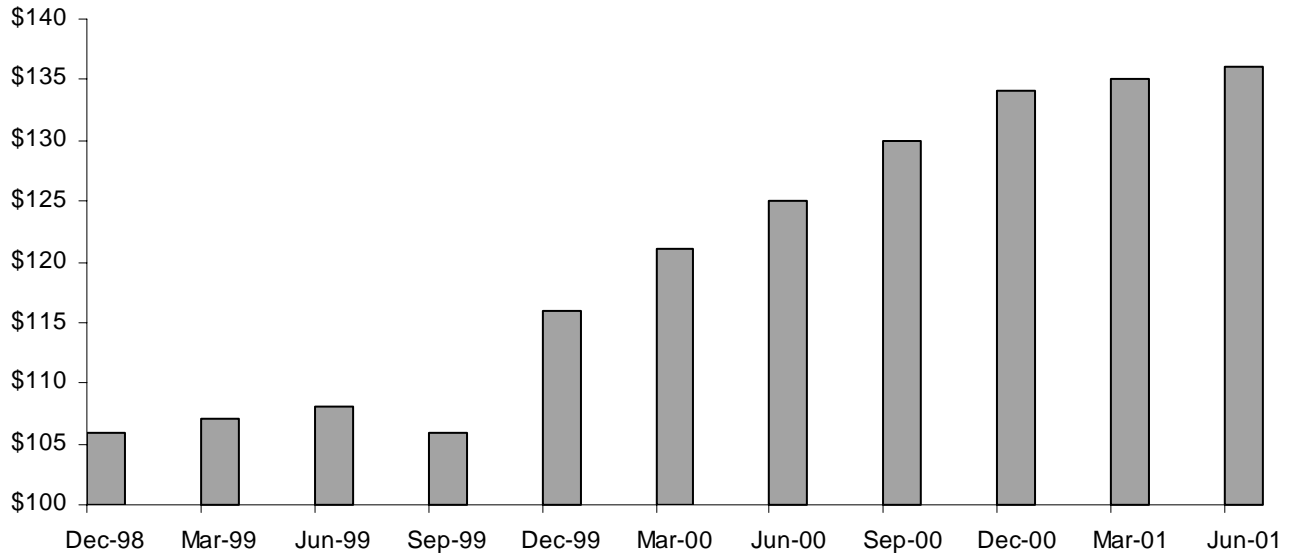
- SEARCH:** A search bar with "All Products" selected and a "GO!" button.
- BROWSE:** A vertical list of categories: Atlantis Store, Your Favorites, Books, Electronics, Music, Camera & Photo, Health & Beauty, Tools & Hardware, Kitchen & Housewares, In Theaters, DVD, Computer & Video Games, Baby, and Toys & Games.
- Personalized Greeting:** "Hello, Philip Meza. We have [recommendations](#) for you. (If you're not Philip Meza, [click here.](#))"
- TECH BOOK SALE:** "Find hot deals on the [hottest tech books](#), from programming to Web design."
- Disney's Atlantis:** "Disney's Atlantis: The Lost Empire Is in Theaters Now! Get Showtimes" with a description of the film and a link to the [Atlantis Store](#).
- Your Recommendations:** "Double Trouble, Been a Long Time" by Stevie Ray Vaughan, featuring drummer Chris Layton and bassist Tommy Shannon.
- More Recommendations:** "Dot Com Blues, Jimmy Smith" and "The Great Human Diasporas" by Luigi Luca Cavalli-Sforza et al.
- CELL PHONES & SERVICE:** "Get \$50 off a \$100 purchase. [Visit the store.](#)"
- New for You:** "Philip Meza, here's what's [New for You.](#) (If you're not Philip Meza, [click here.](#))" with a note "You have 1 item in your [Shopping Cart.](#)" and a "New Releases" list including "Comedy", "Classics", "Television", "Video Outlet", and "Business & Investing".
- Movers & Shakers:** "2,202% Thrustmaster Fire Storm Dual Power Gamepad".

### Exhibit 7: Example of Product Bundling

Bundled offer of the recently-released “Gladiator” DVD with the DVD of the twenty-two year-old movie, “Alien.”



### Exhibit 8: Trailing Twelve Month Spending (in dollars) per Amazon Active Customer



Source: Compiled from company reports.

**Exhibit 9:  
Amazon.com Equity Investments and Acquisitions**

*(A) Equity Investments*

Company	Announcement	Investment Amount	Company Description
Geoworks	2/99	\$5 M	Wireless Software Solutions
Drugstore.com	2/99	45	Online drugstore and health portal
Pets.com	3/99	58	Online pet supply store
Sotheby's.com	6/99	45	Online auction site for art and collectibles
Liquid Audio	6/99	2.5	Music downloading
Gear.com	7/99	N/A	Discount sporting goods
Della and James	9/99	N/A	Online gift registry
NextCard	11/99	22	Online issuer of consumer credit
Ashford.com	12/99	10	Online retailer of luxury goods
GreenLight.com	1/00	N/A	Online auto purchasing (via auto dealers)
Audible	1/00	10+ <sup>(a)</sup>	Audio delivery
Greg Manning Auctions	2/00	5	Online auctions (collectibles)
Basis Technology	2/00	N/A	Software globalization solution
Kozmo.com	3/00	60	Fast local delivery service
Eziba.com	3/00	17.5	handcrafted products
WineShopper.com	4/00	\$30 M	Internet wine retailer
Ofoto	10/00	N/A	Online photo services

*(B) Acquisitions*

Company	Announcement	Investment Amount (\$M)	Company Description
Bookpages	4/98	(b)	UK online bookstore
Telebuch	4/98	(b)	German online bookstore
Internet Movie Database	4/98	(b)	Movie data repository
Junglee	8/98	180	Shopping comparison service
PlanetAll	8/98	100	Online personal information manager
LiveBid.com	4/99	40	Live Internet auctions
Exchange.com	4/99	145	Online Exchange
Accept.com	4/99	189	e-Commerce Solutions
Alexa Internet	4/99	250	Web navigation service
Convergence	4/99	23	Wireless software
Tool Crib of the North	11/99	56	Home improvement products
Back to Basics Toys	11/99	56	Hard-to-find toys

Notes: (a) The Audible deal, in which Audible agreed to pay Amazon \$10 million in exchange for exposure to Amazon's customers was renegotiated in February 2001, in view of Audible's widening losses. The new agreement called for a cash payment of \$2.5 million by 2002. (b) The acquisitions of Bookpages, Telbuch, Internet Movie Database totaled \$55 million.

Source: Compiled from Company press releases, press reports, Morgan Stanley Dean Witter.

**Exhibit 10:**  
**Borders Group Basic Financial Data, January 1996 – January 2001**

(Dollars in millions)

Annual Fiscal End Date	1/28/2001	1/23/2000	1/24/1999	1/25/1998	1/26/1997	1/28/1996
Sales–Total	\$3,271.2	\$2,968.4	\$2,595.0	\$2,266.0	\$1,958.8	\$1,749.0
Cost of Goods Sold*	\$2,354.5	\$2,127.6	\$1,859.4	\$1,634.3	N/A	N/A
Cash from Operations - total	\$138.6	\$173.0	\$166.2	\$147.0	\$101.0	\$11.7
Assets–Total	\$2,047.1	\$1,914.8	\$1,766.6	\$1,534.9	\$1,211.0	\$1,052.3
Long Term Debt	\$15.0	\$16.2	\$6.3	\$5.2	\$6.2	\$8.1
EBIT	\$135.1	\$171.0	\$167.3	\$138.0	\$103.1	(\$200.4)
EBIT Plus Depreciation	\$137.9	\$173.8	\$170.2	\$139.6	\$104.2	\$5.1
Net Income (loss)	\$43.6	\$90.3	\$92.1	\$80.2	\$57.9	(\$211.1)
Total Debt	\$159.4	\$152.3	\$140.4	\$132.5	\$36.7	\$68.6
Book Value	\$846.5	\$802.6	\$715.1	\$598.1	\$511.4	\$472.0
Working Capital	\$217.2	\$170.3	\$144.5	\$137.0	\$211.9	\$197.3

**Financial Ratios**

Asset Turnover	1.65	1.61	1.57	1.65	1.73	N/A
Annual Inventory Turnover	2.07	2.03	1.96	2.02	2.09	N/A
LT Debt/Assets	0.01	0.01	0.00	0.00	0.01	0.01
Quick Ratio	0.12	0.11	0.11	0.14	0.14	0.13
Current Ratio	1.19	1.17	1.15	1.16	1.33	1.36
ROE	5.29	11.90	14.03	14.46	11.78	N/A
ROA	2.20	4.91	5.58	5.84	5.12	N/A

**Margins**

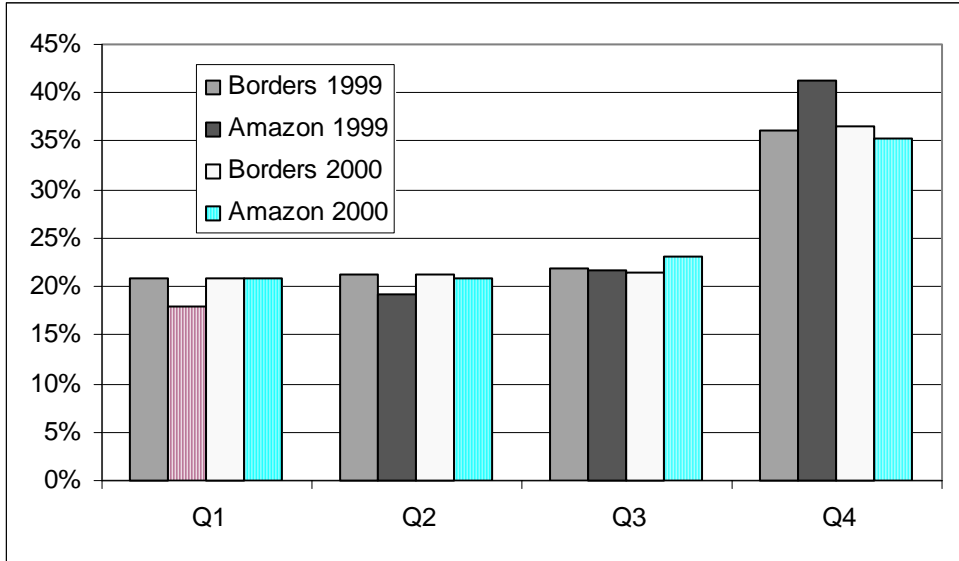
Gross Margin	28.02	28.33	28.35	27.88	26.60	25.54
Operating Margin	4.13	5.76	6.45	6.09	5.26	-11.46
Pretax Margin	1.33	3.04	3.55	3.54	2.96	-12.07
Profit Margin–Net	2.26	3.17	3.55	3.54	2.96	-12.07

\* Includes occupancy.

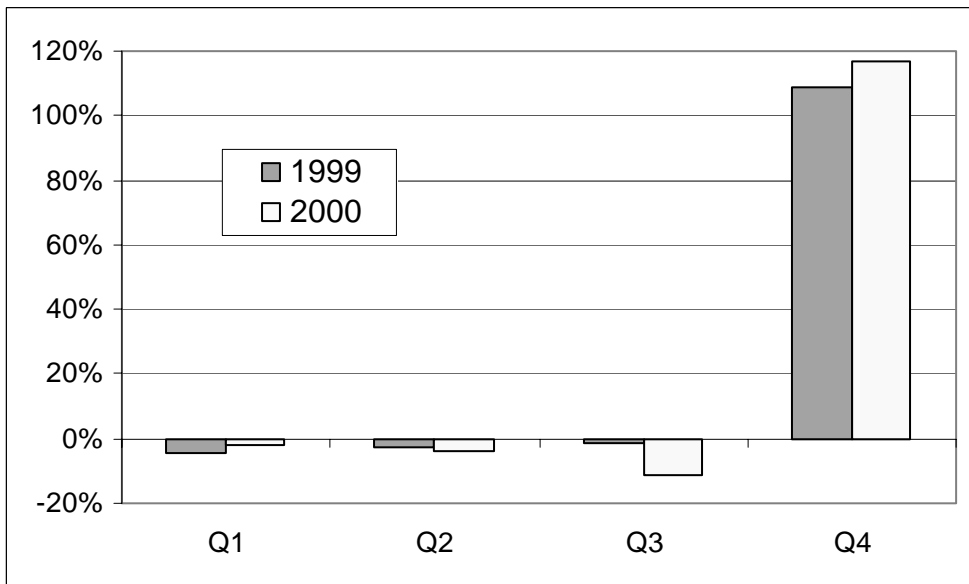
Source: Adapted from One Source, Company Reports.

**Exhibit 11:  
Distribution of Borders Group Sales and Net Income over the Four Quarters,  
Fiscal Years 1999 and 2000**

(a) Seasonality in Borders and Amazon sales, 1999–2000.



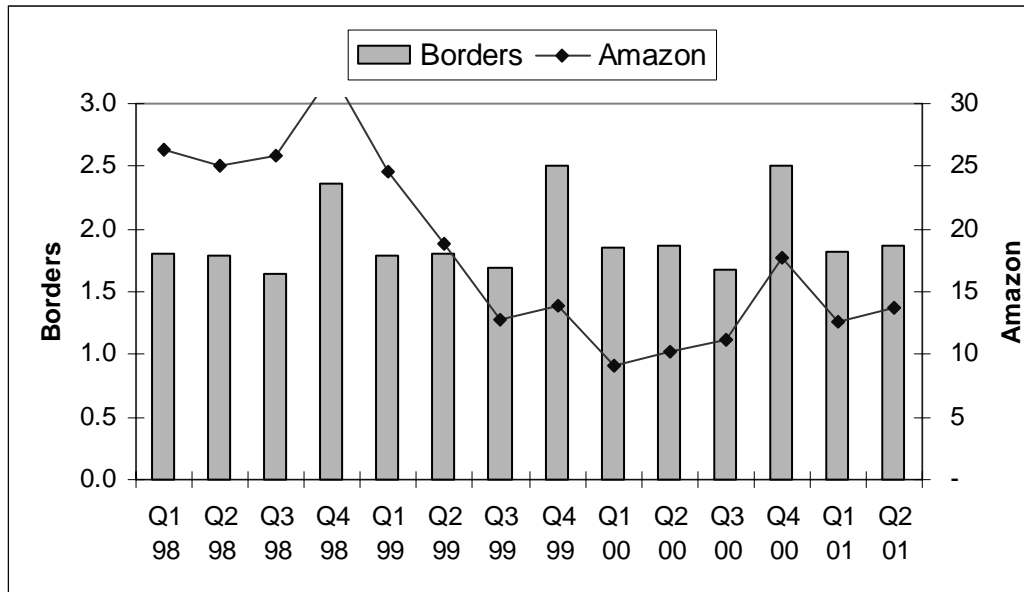
(b) Seasonality in Borders’ Net income, 1999–2000.



Source: Compiled from company reports.



**Exhibit 12:**  
**Comparison of Borders' and Amazon's Quarterly Inventory Turns**



Source: Calculated from company reports.