Operating cycle and inventory turnover

Amazon letters: 2004, 2002, 1999 · Difficulty: Intermediate

Summary

The **operating cycle** measures how long cash is tied up in operations: days of inventory + days of receivables − days of payables. Amazon sells its inventory quickly and collects from customers before it pays suppliers, so its cycle is negative and its suppliers in effect finance its growth.

2004 letter

Future earnings are a component—but not the only important component—of future cash flow per share. Working capital and capital expenditures are also important, as is future share dilution. Though some may find it counterintuitive, a company can actually impair shareholder value in certain circumstances by growing earnings.

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What if we modified the growth rates and, correspondingly, capital expenditures for machinery—would cash flows have deteriorated or improved?

(in thousands)	Year 1	Year 2	Year 3	Year 4
Earnings	$10,000	$20,000	$40,000	$80,000
Depreciation	40,000	80,000	160,000	320,000
Working capital	—	—	—	—
Operating cash flow	50,000	100,000	200,000	400,000
Capital expenditures	160,000	160,000	320,000	640,000
Free cash flow	**$(110,000)**	**$(60,000)**	**$(120,000)**	**$(240,000)**

Paradoxically, from a cash flow perspective, the slower this business grows the better off it is. Once the initial capital outl ay has been made for the first machine, the ideal growth trajectory is to scale to 100% of capacity quickly, then stop growing.

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Our Most Important Financial Measure: Free Cash Flow Per Share Year 2, 3 and 4 Sales and Earnings Growth Rate Number of Machines in Year 4 Year 1 to 4 Cumulative Earnings Year 1 to 4 Cumulative Free Cash Flow (in thousands) 0%, 0%, 0% 1 $ 40,000 $ 40,000 100%, 50%, 33% 4 $100,000 $(140,000) 100%, 100%, 100% 8 $150,000 $(530,000) Amazon.com’s financial focus is on long-term growth in free cash flow per share. Amazon.com’s free cash flow is driven primarily by increasing operating profit dollars and efficiently managing both working capital and capital expenditures. We work to increase operating profit by focusing on improving all aspects of the customer experience to grow sales and by maintaining a lean cost structure. We have a cash generative operating cycle 1 because we turn our inventory quickly, collecting payments from our customers before payments are due to suppliers.

Our high inventory turnover means we maintain relatively low levels of investment in inventory—$480 million at year end on a sales base of nearly $7 billion. The capital efficiency of our business model is illustrated by our modest investments in fixed assets, which were $246 million at year end or 4% of 2004 sales.

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Bezos Founder and Chief Executive Officer Amazon.com, Inc. April 2005 1 The operating cycle is number of days of sales in inventory plus number of days of sales in accounts receivable minus accounts payable days. 2 Free cash flow is defined as net cash provided by operating activities less purchases of fixed assets, including capitalized internal-use software and website development, both of which are presented on our statements of cash flows. Free cash flow for 2004

of $477 million is net cash provided by operating activities of $567 million less purchases of fixed assets, including capitalized internal-use software and website development costs, of $89 million.

2002 letter

We have deep selection that is unconstrained by shelf space. We turn our inventory 19 times in a year. We personalize the store for each and every customer.

1999 letter

(As a side benefit I'll get to see if anyone reads these letters!) In 1999, we continued to benefit from a business model that is inherently capital efficient. We don't need to build physical stores or stock those stores with inventory, and our centralized distribution model has allowed us to build a business with over $2 billion in annualized sales but requiring just $220 million in inventory and $318 million in fixed assets. Over the last five years, we've cumulatively used just $62 million in operating cash.

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So in a way, driving profitability is the foundation underlying all of these goals. In the coming year, we expect to deliver substantial margin improvement and cost leverage as we drive continuous improvement in our partnerships with suppliers, in our own productivity and efficiency, in our management of fixed and working capital, and our expertise in managing product mix and price. Each successive product and service we launch this year should build on our platform, so our investment curve can be less steep and the time to profitability for each business should, in general, continue to shorten.

Source: Jeffrey P. Bezos, Letters to Amazon.com Shareholders: 2004, 2002, 1999 (ir.aboutamazon.com). Excerpts © Amazon.com, Inc., all rights reserved; reproduced in part for non-commercial teaching. "…" marks skipped text. The summary is original course material by Jaeyoon Yu; not affiliated with or endorsed by Amazon.com, Inc.