Amazon: Cash Flows Versus Profits

Note: This writeup focuses on Amazon's original business: first-party retailing. I use the company's pre-2016 results because more recent financial statements include operations like third-party retailing, logistics, advertising and AWS, which have different business models. If you have questions or comments, please reach out to me at turtlebay.io.

"When forced to choose between optimizing the appearance of our GAAP accounting [profits] and maximizing the present value of our future cash flows, we'll take the cash flows." Jeff Bezos wrote this in his first letter to shareholders. It's been Amazon's North Star ever since.

Why run Amazon for cash flows rather than profits?

A business is worth the present value of its cash flows—not its profits. In most cases, you don't need to make this distinction. No-growth and slow-growth companies produce cash flows that roughly match earnings. Declining businesses may even generate cash flows that exceed profits as the balance sheet runs off. But fast-growing businesses? Most fast-growing companies make large investments in working capital and fixed assets to support their increasing size. And these investments can cause cash flows to lag far behind reported profits.

Take Amazon's biggest competitor: Walmart. Walmart, the most successful retailer of the 20th century, grew sales from $3 billion to $100 billion in just 14 years. Over those 14 years, they increased earnings from $100 million to $3 billion and made $20 billion in total profits. But did Walmart produce any cash? No. They had to invest $23 billion in new capital to fund their growth, which led to an overall cash outflow of $3 billion.

WALMART, Inc.

(in millions)

	Year ended January 31,														
	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985	1984	1983
Revenues	106,146	94,749	83,412	67,986	55,985	44,289	32,863	25,985	20,786	16,064	11,994	8,507	6,453	4,703	3,399
year-over-year	*12%*	*14%*	*23%*	*21%*	*26%*	*35%*	*26%*	*25%*	*29%*	*34%*	*41%*	*32%*	*37%*	*38%*	*38%*
Gross profit	21,196	19,063	16,908	13,901	11,309	9,101	7,102	5,741	4,592	3,678	2,856	2,090	1,678	1,249	918
gross margin	*20%*	*20%*	*20%*	*21%*	*20%*	*21%*	*22%*	*22%*	*22%*	*23%*	*24%*	*25%*	*26%*	*27%*	*27%*
Operating profit	5,722	5,247	4,968	4,209	3,489	2,819	2,211	1,846	1,461	1,183	933	660	549	392	263
operating margin	*5%*	*6%*	*6%*	*6%*	*6%*	*6%*	*7%*	*7%*	*7%*	*7%*	*8%*	*8%*	*9%*	*8%*	*8%*
Net profit	3,056	2,740	2,681	2,333	1,995	1,608	1,291	1,076	837	628	450	327	271	196	124
Noncash expenses	1,195	1,077	952	795	697	505	365	297	229	168	153	108	76	59	46
Operatng cash flow	4,251	3,817	3,633	3,128	2,692	2,114	1,656	1,373	1,066	796	603	435	347	255	170
Working capital decrease (increase)	1,679	(1,434)	(727)	(933)	(1,414)	(757)	(360)	(506)	(332)	(336)	(338)	(6)	(270)	(1)	(47)
Net operating cash flow	5,930	2,383	2,906	2,195	1,278	1,357	1,296	867	734	459	265	430	78	254	123
Less: capital expenditures	(2,643)	(3,566)	(3,734)	(3,644)	(3,756)	(1,805)	(1,388)	(955)	(593)	(528)	(404)	(351)	(213)	(110)	(86)
Free cash flow	3,287	(1,183)	(828)	(1,448)	(2,478)	(449)	(92)	(88)	141	(69)	(138)	79	(136)	143	38

How about Amazon? Like Walmart, Amazon grew sales from $3 billion to $100 billion over 14 years. Unlike Walmart, though, Amazon's earnings bounced between a few hundred million in gains and losses. They also made just $5 billion in total profits—one-quarter of Walmart's. Yet Amazon's free cash flow increased from minus $170 million to over $7 billion, and it produced $25 billion in cash.

AMAZON.COM, Inc.

(in millions)	Year ended December 31,														
	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001
Net sales ………	107,006	88,988	74,452	61,093	48,077	34,204	24,509	19,166	14,835	10,711	8,490	6,921	5,264	3,933	3,122
year-over-year	*20%*	*20%*	*22%*	*27%*	*41%*	*40%*	*28%*	*29%*	*39%*	*26%*	*23%*	*31%*	*34%*	*26%*	*13%*
Gross profit ………	35,355	26,236	20,271	15,122	10,789	7,643	5,531	4,270	3,353	2,456	2,039	1,602	1,257	993	799
gross margin	*33%*	*29%*	*27%*	*25%*	*22%*	*22%*	*23%*	*22%*	*23%*	*23%*	*24%*	*23%*	*24%*	*25%*	*26%*
Operating profit ………	2,404	311	859	835	1,016	1,512	1,231	818	664	399	479	432	273	111	(50)
operating margin	*2%*	*0%*	*1%*	*1%*	*2%*	*4%*	*5%*	*4%*	*4%*	*4%*	*6%*	*6%*	*5%*	*3%*	*-2%*
Net profit ………	596	(241)	274	(39)	631	1,152	902	645	476	190	359	588	35	(149)	(567)
Noncash expenses ………	8,767	6,109	4,434	2,696	1,808	762	779	338	97	228	221	(126)	299	284	412
Operating cash flow ………	9,363	5,868	4,708	2,657	2,439	1,914	1,681	983	573	418	580	462	335	135	(155)
Working capital decrease (increase) ………	2,557	974	767	1,523	1,464	1,581	1,612	714	832	284	153	104	57	40	36
Net operating cash flow ………	11,920	6,842	5,475	4,180	3,903	3,495	3,293	1,697	1,405	702	733	567	392	174	(120)
Less: capital expenditures ………	(4,589)	(4,893)	(3,444)	(3,785)	(1,811)	(979)	(373)	(333)	(224)	(216)	(204)	(89)	(46)	(39)	(50)
Free cash flow ………	7,331	1,949	2,031	395	2,092	2,516	2,920	1,364	1,181	486	529	477	346	135	(170)

Given that (a) a business is worth the present value of its cash flows and (b) both companies grew at the same rate, which is worth more:

- $20 billion in profits and $3 billion in cash outflows.
- $5 billion in profits and $25 billion in cash inflows.

Are there other reasons to focus on cash flows rather than profits? Yes.

Capital Efficiency

Growth depends on (a) a company's profits relative to its shareholders' equity and (b) the percentage of those profits that it retains. A business that, for instance, earns 10% on equity and pays no dividends will grow by 10%. Anything above 10% requires the company to issue more debt or raise new equity. Amazon, which operates with negative invested capital (see endnote), doesn't need to make this tradeoff. They can grow as fast as they want without retaining earnings or raising money. Consider that Amazon self-funded the growth of its first-party retail operations and still produced enough surplus cash to expand into other businesses, including some that require large capital investments.

Operating Efficiency

Three things determine a business's return on shareholders' equity: (1) sales relative to invested capital; (2) the profit margin on those sales; and (3) the amount of leverage used to finance invested capital.[1] Companies with lots of sales per dollar of invested capital can operate with low margins and still earn high returns on equity. Amazon, which produces billions in sales with negative invested capital, can earn high returns with near-breakeven margins. This lets them underprice competing retailers that need fatter margins to offset large capital investments. Amazon, in fact, generates more cash per incremental sales dollar at a breakeven margin (around 10%) than most retailers make in pretax margin (below 10%).

AMAZON.COM, Inc.

	Year ended December 31,														
	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001
Cash from working capital to sales ………………..	16%	16%	15%	15%	15%	16%	16%	12%	11%	11%	12%	12%	16%	19%	23%
Less: capital expenditures to sales ………………...	-4%	-5%	-5%	-6%	-4%	-3%	-2%	-2%	-2%	-2%	-2%	-1%	-1%	-1%	-2%
Net cash per incremental sales dollar …………...	12%	10%	10%	9%	11%	13%	15%	10%	10%	9%	9%	11%	15%	18%	21%

Tax Efficiency

Cash flows consist of (a) profits, (b) working capital and (c) fixed asset investment relative to depreciation charges. Most companies generate their cash flows from earnings. Amazon, on the other hand, produces its cash flows mostly from working capital. And cash from working capital, unlike earnings, isn't subject to federal income taxes. It also uses its large non-first-party-retailing fixed asset investments, which benefit from favorable tax treatment, to reduce or defer the small amount of taxes that it does owe. The result: from 2001 to 2015, Amazon paid just $1 billion in taxes on its $46 billion in pretax net operating cash flow.

AMAZON.COM, Inc.

(in millions)

	Year ended December 31,														
	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001
Income tax provision (benefit) ………………..	950	167	161	428	291	352	253	247	184	187	95	(233)	-	-	-
Less: noncash tax adjustments ………………..	(677)	10	8	(316)	(258)	(277)	(205)	(194)	(160)	(172)	(83)	237	-	-	-
Cash taxes paid …………………………… ...	273	177	169	112	33	75	48	53	24	15	12	4	-	-	-
cash taxes paid to pretax net operating cash flow	*2%*	*3%*	*3%*	*3%*	*1%*	*2%*	*1%*	*3%*	*2%*	*2%*	*2%*	*1%*	*0%*	*0%*	*0%*

Amazon grew to become one of the most valuable companies in the world. They expanded their first-party retailing operations and entered new businesses, including some that required large capital investments. And they became one of the most formidable competitors in retailing. Yet Amazon never produced sizable profits, raised equity, used large amounts of debt or paid lots of taxes. How did they do it? They did it by focusing on cash flows rather than profits.

[1] For example: ($10 million in sales / $20 million in invested capital) * ($2 million in net profits / $10 million in sales) * ($20 million in invested capital / $10 million in equity) = 20% return on equity.

AMAZON.COM, Inc.

(in millions)	Sources & Uses of Cash					
	Operating Cash Flows	Working Capital	Capital Expenditures	Acquisitions	Debt	Repurchases
2002	135	40	(39)	-	(15)	-
2003	335	57	(46)	5	(495)	-
2004	462	104	(89)	(71)	(157)	-
2005	580	153	(204)	(24)	(259)	-
2006	418	284	(216)	(32)	(285)	(252)
2007	573	832	(224)	(75)	(50)	(248)
2008	983	714	(333)	(494)	(268)	(100)
2009	1,681	1,612	(373)	(40)	(385)	-
2010	1,914	1,581	(979)	(352)	(78)	-
2011	2,439	1,464	(1,811)	(705)	(267)	(277)
2012	2,657	1,523	(3,785)	(745)	2,790	(960)
2013	4,708	767	(3,444)	(312)	(617)	-
2014	5,868	974	(4,893)	(979)	4,426	-
2015	9,363	2,557	(4,589)	(795)	(3,882)	-
	32,116	12,662	(21,025)	(4,619)	457	(1,837)

Note on Invested Capital

Invested Capital = Working Capital + Fixed Assets

How does Amazon operate with negative invested capital? Amazon doesn't need a lot of assets to support its sales: they extend no credit to customers, maintain just 30 days of inventory and turn fixed assets 20 times a year. They, too, offset what assets are needed with over 100 days of operating liabilities*, including accounts payable, accrued expenses, unearned revenues and deferred taxes. These liabilities function as an interest-free revolving loan: Amazon's suppliers, vendors, employees, customers and the government effectively lend the company more than enough cash to fund its operations.

*For example: In 2015, Amazon had $107 billion in sales, $20 billion in payables, $3 billion in deferred revenues and $10 billion in accrued expenses, giving them 113 days' worth of operating liabilities at year-end [($33 billions in operating liabilities / $107 billion in sales) * 365 days = 113 days of operating liability float].