



Excerpt: Analyzing Recent Cash Flows on Statement of Cash Flows

RECENT CASH FLOWS

Here we take a deeper look into cash flows, as reported on companies' cash-flow statements. Over the long run, companies perform for shareholders to the extent net cash from operations exceeds the cash outflows required to maintain and grow the business and to meet debt obligations. To assess recent progress towards this end, users often rearrange items reported on cash-flow statements, as indicated on the next page for Intel and AMD¹, or create other tables along similar lines to assist in their analysis.

The modified cash-flow statements illustrate that Intel's operating cash flows have been much stronger over the past three years than those of its biggest competitor, AMD and that Intel's cash reserves are much larger.

Net cash from operations

The first row in the modified statements reveals net cash from operations is positive for both Intel and AMD for 2005–2006. Intel also had positive net cash from operations for 2007, but AMD's was negative for 2007. Operating cash flow deficits (e.g., negative net cash from operations) are often red flags for investors, meaning situations where healthy skepticism and further inquiry is warranted. Operating deficits must be covered by cash reserves, selling assets, or by issuing debt or common stock.

Successful companies often have operating deficits when they are growing quickly, especially during their early years. Operating deficits are also common when there are downturns in the economy. However, operating deficits can also signal problems: sooner or later companies have to generate positive operating cash flows to stay in business and return cash to their investors.

Net cash provided from operations before interest and taxes

Investors often assess performance before interest and taxes. Adjusting for interest allows investors to compare operating performance across companies with different levels of debt financing. Adjusting for taxes allows them to focus on management's performance in running the company independent from their tax strategies, over which they have limited control. You may have heard of a similar adjustment on income statements called **EBIT** — earnings before interest and taxes, or of a related measure called **EBITDA** — earnings before interest, taxes, depreciation, and amortization, which we will discuss later.

Intel's tax payments were significantly larger than AMD's over the three years, reflecting its larger size and profitability. (For reasons that are well beyond the scope of this excerpt, Intel also has an adjustment for excess tax credits associated with share-based compensation.) Thus, the tax adjustments are more significant for Intel.

By contrast, notwithstanding its smaller size, AMD paid more interest each year, especially in 2007. As we shall see shortly, AMD increased its debt significantly over this period.

¹ Sources: Intel's 2007 Form 10-K. www.intel.com. AMD's 2007 Form 10-K. www.amd.com. All brands and product names are trademarks of their respective owners.

Intel Cash Flow Analysis			
Three Years Ended December 29, 2007			
(In Millions)			
	2007	2006	2005
Net cash from operations	12,625	10,632	14,851
+ Interest payments	15	25	27
+ Income tax payments	2,762	2,432	3,218
+ Excess tax benefit from share-based payment arrangements	118	123	—
Net cash from operations before interest and taxes	15,520	13,212	18,096
- CAPX and intangibles needed to maintain current capacity (estimated as depreciation and amortization)	(4,798)	(4,912)	(4,595)
Cash surplus (shortfall) after maintaining current capacity, pretax and prefinancing	10,722	8,300	13,501
- Interest payments	(15)	(25)	(27)
- Income tax payments	(2,762)	(2,432)	(3,218)
- Principal payments on long-term debt and notes payable	—	(581)	(19)
- Short-term debt payments in excess of short-term borrowings	(39)	(114)	0
Cash surplus (shortfall) after maintaining current capacity and paying debt and taxes	7,906	5,148	10,237
- Cash purchases of PP&E to both maintain and expand capacity, net of disposals	(5,000)	(5,860)	(5,871)
- Net cash purchases of other long term assets to both expand and maintain capacity (estimated by net of all other investing cash flows except those related to securities)	250	719	(309)
+ Cash outflows to maintain capacity (as reported above)	4,798	4,912	4,595
Cash surplus (shortfall) after maintaining and expanding capacity and paying debt and taxes	7,954	4,919	8,652
- Share repurchases	(2,788)	(4,593)	(10,637)
- Cash dividends	(2,618)	(2,320)	(1,958)
Cash surplus (shortfall) before new financing and securities transactions	2,548	(1,994)	(3,943)
New financing			
+ Proceeds from issuing capital shares	3,052	1,046	1,202
+ Proceeds from issuing long term debt	125	—	1,742
+ Short-term borrowings in excess of short-term debt payments	0	0	126
Securities transactions			
+ Proceeds from selling investment securities and maturities	8,011	7,147	8,433
- Purchases of investment securities	(13,187)	(6,994)	(8,668)
Other cash flows	160	69	25
Net increase (decrease) in cash	709	(726)	(1,083)

AMD Cash Flow Analysis			
Three Years Ended December 29, 2007			
(In Millions)			
	2007	2006	2005
Net cash from operations	(310)	1,287	1,483
+ Interest payments	314	79	139
+ Income tax payments	26	17	40
Net cash from operations before interest and taxes	30	1,383	1,662
- CAPX needed to maintain current capacity (estimated as depreciation and amortization)	(1,305)	(837)	(1,219)
Cash surplus (shortfall) after maintaining current capacity, pretax and prefinancing	(1,275)	546	443
- Interest paid	(314)	(79)	(139)
- Income taxes paid	(26)	(17)	(40)
- Principal payments on long-term debt and capital lease obligations	(2,291)	(539)	(316)
- Purchase of capped call	(182)	—	—
- Other financing	(2)	—	(7)
Cash surplus (shortfall) after maintaining current capacity and paying debt and taxes	(4,090)	(89)	(59)
- Cash purchases of PP&E to both maintain and expand capacity, net of disposals	(1,612)	(1,834)	(1,503)
- Net cash purchases of other long term assets to both expand and maintain capacity (estimated by all other investing cash flows except those related to marketable securities)	175	(3,416)	(41)
+ Cash outflows to maintain capacity (as reported above)	1,305	837	1,219
Cash surplus (shortfall) after maintaining and expanding capacity and paying debt and taxes	(4,222)	(4,502)	(384)
- Repayment of silent partner contributions	(46)	0	0
Net cash inflows (outflows) before new financing	(4,268)	(4,502)	(384)
New financing			
+ Proceeds from issuance of common stock	608	495	0
+ Proceeds from sales of shares through employee equity incentive plans	78	231	189
+ Short-term borrowings in excess of short-term debt payments	0	0	77
+ Additions to long-term debt and notes payable to bank	3,649	3,366	169
+ Proceeds from limited partners and sale leaseback	—	—	219
+ Proceeds from government grants and subsidies	223	210	163
Marketable securities transactions			
Purchases of available-for-sale investments	(545)	(2,119)	(1,562)
Maturities and sales of available-for-sale investments	307	3,066	836
Other cash flows	—	—	7
Net increase (decrease) in cash	52	747	(286)

Sources: Intel's 2007 10-K and AMD's 2007 10-K

Cash surplus (shortfall) after maintaining current capacity, pretax and prefinancing

This measure assesses the extent to which operating cash flows are adequate enough to maintain the current operating capacity. Ideally, it is the amount spent on PP&E and other long-term assets during the current year to maintain the current level of sales and profitability.

This measure allows investors to isolate the effects of growth. For example, they can split the current cash outflows for PP&E additions into two components: the cash needed to maintain capacity and the cash needed to expand capacity (included below).

Outsiders do not observe this measure so they must estimate it from reported information. One approach, which we have followed, is to use the current year's depreciation and amortization as a proxy for the expenditure needed to maintain capacity. The rationale for this proxy is that depreciation and amortization measure current period usage of long-term assets and this usage must be replaced to maintain capacity levels.

Intel's pretax-prefinancing operating cash flows are significantly more than needed to cover depreciation and amortization for the three years. AMD's operating cash flows covered capacity maintenance for 2005–2006 but fell short by \$1,275 million in 2007.

Cash surplus (shortfall) after maintaining current capacity and paying debt, and taxes

If companies can't maintain their current operating capacity and can't meet their current obligations to debt holders and tax authorities, investors are likely to be skeptical about making contributions to finance the company's growth. This skepticism can be overcome if investors believe there are great products in the pipeline or other reasons to believe the company will generate more cash in the future than it has in the past.

For 2005–2007, Intel's operating cash flows easily covered its expenditures to maintain current capacity, pay taxes, and meet debt obligations. By contrast, AMD has a \$4,090 million deficit after these cash outflows in 2007.

Cash surplus (shortfall) after maintaining and expanding current capacity and paying debt, and taxes

When this measure is positive, as it is for Intel in all three years, it means the company is financing its growth internally from operating cash flows. Any remaining cash flows can be returned to owners or invested in securities that can be liquidated in the future to cover growth or weather downturns. For the three years 2005–2007, Intel generated a total of \$21,525 million for these purposes. By contrast, AMD had a total deficit of \$9,108 million during these three years that had to be covered by new financing.

Cash surplus (shortfall) before new financing and securities transactions

This is the current-year cash flow after distributions to owners, but before new financing. When it is positive, as it was for Intel in 2007, it means the company has held back cash flows that otherwise could have been distributed to owners.

When this measure is negative, it means the company had to cover the total net outflows for the current year, including returns to owners, by a combination of liquidating securities purchased in prior years, using cash balances carried over from prior years, or securing external financing. For Intel, the measure was negative in 2005 and 2006 because Intel returned over \$19.5 billion to owners through dividends or stock repurchases.

For AMD, the measure was negative for all three years because of cash outflows discussed earlier. In fact, aside from a relatively insignificant return of \$46 million to a silent partner, AMD did not return any cash to its owners during the three years.

Net increase (decrease) in cash

Intel's employees provided a total of \$5,300 million of new financing during the three years by exercising stock options or otherwise exchanging cash for shares. Intel also issued \$1,742 million of long-term debt in 2005, but only issued a total of \$125 million during 2006 and 2007. By contrast, during 2006 and 2007 AMD issued \$7,015 million of long-term debt and \$1,103 million of common stock, and received an additional \$309 million from employees related to share-based incentive programs. Thus, AMD was increasingly relying on debt financing during this period.

When net cash flows after new financing is positive, it is used to build cash reserves or increase investments in securities. By contrast, when it is negative, cash reserves or investment balances must be used to cover the shortfall.

Cash Flow Analysis and Company Life Cycles

We have seen that Intel's operating cash flows were much stronger than AMD's during 2005–2007, which probably implies that Intel outperformed AMD in the battle for market share in microprocessor chips. The consequences for AMD show up throughout its financial statements, but as we have seen here they are particularly evident on the cash-flow statement.

Cash flow analyses like the one we conducted become increasingly important to investors when companies perform poorly over prolonged periods and respond by increasing debt. This is particularly true when credit markets are tight, as they were during late 2007 and 2008.

The focus on cash flows tends to be most pronounced at the two extremes of companies' life cycles. At the beginning of the life cycle for a new company, venture capitalists and entrepreneurs focus almost exclusively on cash flows during the early years of a new venture and, in particular, on the rate at which cash is used — the burn rate. The critical concern is whether the company will run out of cash before it has time to launch new products and win over customers. Generally, as companies progress through their life cycles, their operating cash flows tend to cover more of the costs we discussed earlier. Towards the end of their life cycles, the closer companies get to bankruptcy or liquidation, the more investors tend to focus on cash flows and new product pipelines.

Thus, early on cash from operations is negative. The company succeeds by first generating positive operating cash flows, then positive cash flows that cover capacity maintenance costs, and so on. If the company starts performing poorly, this process can begin to reverse itself and the lack of cash can ultimately lead to liquidation.