

03 Cash Flow Statements

Cash Flow Analysis – Income Statement

	Core Income	
	Earnings from equity affiliates	

	Operating Income (OI)	
+	Non-operating income (Interest and dividends)	

=	Earnings Before Interest & Taxes (EBIT)	
-	Interest Expense	

=	Earnings Before Taxes (EBT)	
-	Tax Expense	

=	Net Income (NI)	

After 1987, SFAS 95, requires a Statement Cash Flow Statement [S of CF]

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Net income to CFO – 3 types of adjustments

Net Income

1. - Noncash revenues
e.g. Credit sales - Collections from past = in Receivables
- + Noncash expenses
e.g. Depreciation

2. - Nonoperating gains & losses
e.g. Subtract gains from property sales

3. - Increase in operating assets
e.g. Prepaid assets

= CFO

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Why Cash Flow Statements

Cash Flow from Operations CFO
Two Methods: Direct Method, Indirect Method
Same bottom line value under both methods.
Presentation different.

Cash Flow from Investing CFI
Cash Flow from Financing CFF
Same presentation and value.

Total Cash Flow number

With no change in tax accounting methods
Is total Cash Flow number
affected by accounting methods? Yes / NO
e.g. Revenue Recognition, Depreciation methods

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CFI, CFF Cash Flow Statement [S of CF]

	Purchase of PP&E	
-	Net New Investments	= CFI

	Net Debt Repaid	
-	Dividends	
+	Stock sales	
-	Stock repurchases	= CFF

CFO + CFI + CFF
= Increase in cash
= Total Cash Flow

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03 Cash Flow Statements

Reported versus Operating changes

Acquisitions and Divestitures
 Inventory may increase due to Where shown ?

 » Purchase of inventory from a supplier CFO / CFI
 » Acquisition of a firm with inventories CFO / CFI

Translation of foreign subsidiaries
 Balance sheet reflects changes in exchange rates.
 S of CF does not.

Effects of exchange rate changes on cash
 - Directly reported

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Cash Flow Classification Issues

What is the most important CF item? +; - ; 0
 CFO or CFI or CFF

 Costs for replacement of capacity - ignored in CFO
 Which firm with same operations have lower CFO
 Leasing firm or Borrowing (and buying) firm?
 Leasing firm: CFO (-) rental expense (operating lease)
 Borrow & Buy firm: CFO () ; CFI () ; CFF () ; Total same.

 Interest paid is CFO under SFAS 95.
 Not accurate as capital structure affects CFO
 – highly leveraged firms will have lower / higher CFO

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Direct vs. Indirect Method

» Operating cash flows by function not available in the indirect method.
 » For a good FSA, recasting of the direct method CFO to an indirect method CFO may be of value

Is CFO < = > Net Income over the long run?
 CFO generally higher as CFO does not include cost of capacity

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Accounting Methods and Cash Flow

Accounting methods	can; can not; can
<u>can / can NOT cause</u>	Income differences.
 <u>can / can NOT cause</u>	 CF differences.
 <u>can / can NOT cause</u>	 CF classification differences.
 e.g.	
Capitalization of Software costs	
increases / decreases	CFO
increases / decreases	CFI

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03 Cash Flow Statements

Free Cash Flow to the firm

- = Cash from operations (CFO)
- the amount of capital expenditures required to maintain the firm's present productive capacity.
- + Interest Expense x (1 - Tax Rate)

 Useful in many valuation models and mergers and acquisitions analysis.

$$\begin{aligned} & \text{Free Cash Flow} \\ = & \text{CFO} - (-\text{CFI} + \text{Other Investment}) \\ & + \text{Interest Expense} \times (1 - \text{Tax Rate}) \\ = & \text{CFO} + \text{CFI} \\ & - \text{Other Investment} \\ & + \text{Interest Expense} \times (1 - \text{Tax Rate}) \end{aligned}$$

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NOPAT

$$\begin{aligned} \text{Net Income} &= \\ & [\text{EBIT} - \text{Interest Expense}] \\ & \times [1 - \text{Tax Rate}] \end{aligned}$$

rearranging terms

$$\begin{aligned} & \text{EBIT} \times [1 - \text{Tax Rate}] \\ = & \text{Net Income} + \text{Interest Expense} \times [1 - \text{Tax Rate}] \\ = & \text{Net Operating Profit After Taxes} = \text{NOPAT} \\ \text{If EBIT} &= \text{operating income} \end{aligned}$$

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Free Cash Flow

$$\begin{aligned} \text{CFO} + \text{CFI} + \text{CFF} &= \text{Increase in cash} \\ \text{CFO} + \text{CFI} &= \text{Increase in cash} - \text{CFF} \end{aligned}$$

$$\begin{aligned} \text{Free Cash Flow} \\ = & \text{Increase in cash} + (-\text{CFF}) - \text{Other Investment} \\ & + \text{Interest Expense} \times (1 - \text{Tax Rate}) \end{aligned}$$

 So free cash flow is the amount left for
 Increase in Cash
 Payments to investors
 Acquisitions

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Free Cash Flow – three ways

CFO	Net Income + Depreciation - Increase in Working Capital	NOPAT + Depreciation - Increase in Working Capital
+ Net Interest Exp [1 - Tax Rate]	+ Net Interest Exp [1 - Tax Rate]	
- Purchase of PP&E	- Purchase of PP&E	- Purchase of PP&E

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03 Cash Flow Statements

Cash Flow – Tax benefit of options – Where 1

EXERCISING THEIR OPTIONS			
The impact of tax benefits from the exercise of employee stock options on operating cash flow			
	Option-exercise tax benefit as a percent of cashflow from operations	Cash flow from operations (in millions)	Tax benefit from option exercise (in millions)
Altera	16%	\$403	\$64
Cisco Systems	19	4,438	837
Dell Computer	26	3,926	1,040
Intel	4	11,335	506
JDS Uniphase	17	67	11
Oracle	3	1,807	56
Qualcomm	79	182	144*
Sun Microsystems	9	2,517	222
WorldCom	7	11,005	820
Xilinx	14	244	35
Yahoo!	17	216	37

*Qualcomm says the actual number is lower
Source: company reports, Bear, Stearns & Co. estimates

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Cash Flow – Tax benefit of options – Where 2

Operations or _____

See articles:

Options Rule Could Hit Cash Flows

Stock Options Pad Cash Flow Of Soaring Technology Issues

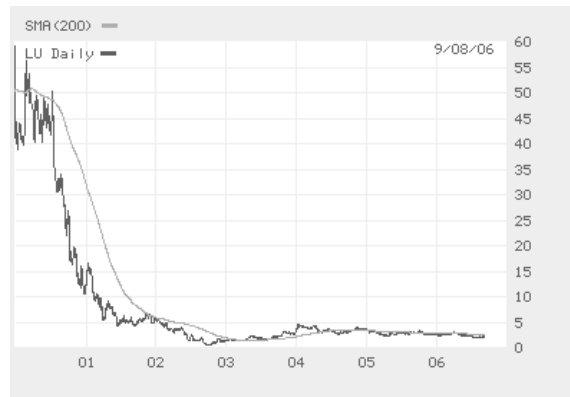
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Lucent

Last Trade: 2.25; 52wk Range: 1.99 - 3.49

Volume: 91,212,000; Avg Vol (3m): 44,304,300

Market Cap: 10.08B; P/E (ttm): 18.75; EPS (ttm): 0.12



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