A practitioner's guide to applied corporate finance

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third edition

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Cash flow

INTRODUCTION

While the balance sheet and income statement are based on generally accepted accounting standards and conventions, cash flow is 'real' and cannot be varied so much by management decisions about the presentation of financial information. Bankers want to understand cash flows since the priorities are that the company survives and generates sufficient cash to repay loans, lease rentals and other forms of borrowing. Corporate finance today concentrates more on cash as an international measure for assessing performance rather than accounting profit measures.

The model introduced in the last chapter, MFM3_06_Financial_Analysis, reconciles the income statement and balance sheet back to change in cash:

Starting cash balance	
+	Cash generated from operations and other sources
–	Cash used to fund operations, investment, research, etc.
=	Ending cash balance

The model uses a layout which calculates the trading cash or net operating cash flow (NOCF) and then uses the cash, together with the new capital introduced into the business, to reconcile back to the change in bank on the balance sheet. As with the balance sheet, the spreadsheet must self-check to rule out any mathematical errors and provide an overall integrity check. The important lines are:

EBITDA	Net operating profit adding back non-cash items such as depreciation of fixed assets and amortisation of goodwill
Net operating cash flow	Trading cash produced from the trading of the company
Cash flow before financing	Cash before new capital. (This links to the growth formulas in the previous chapter.)

Figure 7.1 illustrates the derivation of the lines in the cash flow. This is particularly useful where the information is derived from the change in balance from the beginning to the end of the year in the balance sheet and the amounts passed through the income statement.

There is also a cash flow set out generally according to international standards (Figure 7.2), which derives cash from operations and then shows the cash used or generated in investing and financing. The totals for cash are the same, although there are differences in the categorisation. For example, interest is counted under operations, whereas the UK method would place interest with financing.

Figure 7.1 **Derivation of cash flow**

	Item	Comment
Net Operating Profit (NOP)		**Income Statement**
	Depreciation / Amortisation	Non cash items
Earnings before Interest, Tax, Depreciation and Amortisation (EBITDA)		
Operating Items		
(+)/-	Current Assets	Inc = negative, Dec = positive
+/(-)	Current Liabilities	Inc = Positive, Dec = negative
Net Operating Cash Flow (NOCF)		**EBITDA + change in working capital**
Returns on Investment and Servicing of Finance		
	Interest Received	Income statement
	Interest Paid	Income statement
	Dividends	Income statement
Net Cash Outflow from Returns on Investments and Servicing of Finance		
Taxation		
	Taxes Paid	Income statement
	Deferred Tax	Change in balance sheet
Net Cash Outflow for Taxation		
Investing Activities		
	Expenditure on Property, Plant and Equipment	Change in balance sheet + depreciation in P&L
	Expenditure on Investments & Intangibles	Change in balance sheet
	Marketable Securities	Change in balance sheet
Net Cash Outflow for Capital Expenditure and Financial Investment		
Exceptional and Minority Items		
	Exceptional Income and Expense	Income statement and balance sheet (if applicable)
Net Cash Outflow from Exceptional and Minority Items		
Reconciliation		
	Reconciliation Figure	Difference between RE on P&L and balance sheet
Total Cash (Outflow)/Inflow before Financing		**Addition**
Financing		
	Share Capital and Reserves	Change in balance sheet
	Short Term Debt and Provisions	Change in balance sheet
	Long Term Debt and Provisions	Change in balance sheet
Net Cash Inflow/(Outflow) from Financing		
Increase / (Decrease) in Cash		**Addition**
Reconciliation of Net Cash Flow to Bank		
	Cash	Change in balance sheet
	CheckSum:	

DERIVING CASH FLOW

There is a model called MFM3_07_Cash_Flow_Statement, which demonstrates how the cash flow for the final period is calculated. This contains a copy of the data for the income statement and balance sheet and derives the cash flow statement (see Figure 7.3).

The balance sheet calculates the differences between each of the years. On the asset side of the balance sheet, an increase means that cash is being consumed, while a reduction is a source of cash. If debtors increase, then the

Figure 7.2

IAS layout

	Line	Item	Comment
9			
10	IC10	**Profit from Operations**	**Income statement**
11	IC11	Depreciation / Amortisation / Intangibles	Income statement
12	IC12	**Operating Cash Flows before Movements in Working Capital**	
13	IC13		
14	IC14	**Working Capital**	
15	IC15	(+)/- Decrease / (Increase) in Receivables	Last year - this year
16	IC16	+/(-) Increase / (Decrease) in Payables	This year - last year
17	IC17	**Changes in Working Capital**	**Sum**
18	IC18		
19	IC19	**Cash Generated by Operations**	
20	IC20		
21	IC21	Taxes Paid	Income statement
22	IC22	Interest Paid	Income statement
23	IC23	**Net Cash From Operating Activities**	**Sum**
24	IC24		
25	IC25	**Investing Activities**	
26	IC26	Interest Received	Income statement
27	IC27	Expenditure on Property, Plant and Equipment	Last year - this year
28	IC28	Expenditure on Investments, LT Assets & Intangibles	Last year - this year
29	IC29	Marketable Securities	Last year - this year
30	IC30	Exceptional Income and Expense	Income statement
31	IC31	**Net Cash Used in Investing Activities**	
32	IC32		
33	IC33	**Financing Activities**	
34	IC34	Deferred Tax	This year - last year
35	IC35	Dividends	Income statement
36	IC36	Share Capital and Reserves	This year - last year
37	IC37	Short Term Debt and Provisions	This year - last year
38	IC38	Long Term Debt and Provisions	This year - last year
39	IC39	**Net Cash (Used In) / From Financing Activities**	**Sum**
40	IC40		
41	IC41	**Increase / (Decrease) in Cash and Cash Equivalents**	**Sum**
42	IC42		
43	IC43	**Reconciliation**	
44	IC44	Reconciliation Figure	Difference between RE and BS
45	IC45	**Net Increase / (Decrease) in Cash and Cash Equivalents**	**Sum**
46	IC46		
47	IC47	Cash at the Beginning of the Period	Last year
48	IC48	Cash at the End of the Period	This year
49	IC49	**Cash and Cash Equivalents at the End of the Period**	
50	IC50		
51	IC51	**Reconciliation of Net Cash Flow to Bank**	
52	IC52	Cash	Change in balance sheet
53	IC53		
54	IC54	CheckSum:	Check

company is less efficient in collecting cash and therefore needs more cash to fund the operating cycle. The opposite is true with creditor items. If the creditors rise, then more credit is being extended to the company and this increases cash resources.

Certain items such as fixed assets require items from the balance sheet and income statement. This is the change in net fixed assets plus the depreciation in the income statement. The reconciliation section at the bottom assists with the coding of the cells, since the difference must disappear