



# Cash in

Operating cash flow questions are often skipped altogether, ensuring a mark of zero. Doug Williamson explains how to earn these easy points

Healthy businesses normally enjoy substantial cash inflows from their ongoing operations and sales receipts. In simple terms, the related cash inflow will be the adjusted operating profit.

For a growing business, a substantial use of cash will often be investment for further growth – for example, additional investment in net working capital for expansion.

When profitable companies expand too fast, they can run out of cash and liquidity and go bust. (This is known as ‘overtrading’.)

This essential understanding has recently been examined by asking you to: (1) calculate operating cash flow; or (2) prepare the statement for the net cash flow from operating activities; and (3) comment appropriately.

## Calculating operating cash flow

A company had the following results and activities for the year just ended. All amounts are in millions:

OPERATING PROFIT:	50
TAX PAID:	7
OPERATING PROFIT IS STATED AFTER CHARGING DEPRECIATION AND AMORTISATION OF:	2
ADDITIONAL INVESTMENT IN NET WORKING CAPITAL:	39

Calculate the net operating cash flow for the year and comment on your findings for the cash manager.

## Tax payments absorb cash

Our calculation of the net operating cash flow starts with the adjusted operating profit.

Our first adjustment to the operating profit before tax of 50 is to deduct the tax paid of 7. The business must pay the tax authorities promptly. (Or else the tax authority will quickly chase the business.)

<u>OPERATING CASH CALCULATION (1)</u>	
OPERATING PROFIT	50
LESS: (TAX PAID)	(7)
AFTER TAX	43

## Depreciation and amortisation aren't cash

Operating profit has been stated after charging depreciation and amortisation of 2. But accounting depreciation and amortisation charges are not cash flows. So we need to add back the depreciation and amortisation, as non-cash items within the net operating profit.

<u>OPERATING CASH CALCULATION (2)</u>	
OPERATING PROFIT	50
LESS: (TAX PAID)	(7)
AFTER TAX	43
ADD BACK: DEPRECIATION AND AMORTISATION	2
	45

## Increasing working capital absorbs cash

Our company has made an additional investment in net working capital of 39. This is a substantial use of cash. It reduces net cash flow, so it's an important further deduction in calculating net operating cash flow.

<u>OPERATING CASH CALCULATION (3)</u>	
OPERATING PROFIT	50
LESS: (TAX PAID)	(7)
AFTER TAX	43
ADD BACK: DEPRECIATION AND AMORTISATION	2
	45
LESS: (INCREASE IN NET WORKING CAPITAL)	(39)
= NET OPERATING CASH FLOW	6

The cash manager will need to monitor the increase in net working capital. It has absorbed almost all of the positive operating cash flow for the year.

## Decreasing working capital RELEASES cash

Net working capital is the total of current working assets LESS current working liabilities. Improved working capital management seeks to: (1) reduce current assets; or (2) increase current liabilities; or (3) both.

If either – or both – of these aims is achieved, then the amount of cash tied up in working capital will be correspondingly smaller. This can result in a smaller additional amount of cash being absorbed into working capital, or even a net release of cash from working capital.

	LAST YEAR'S ASSET/(LIABILITY)	LESS	THIS YEAR'S ASSET/(LIABILITY)	= NET WORKING CAPITAL (INCREASE)/DECREASE
<i>ASSETS (INCREASE)/DECREASE:</i>				
RECEIVABLES	116		143	(27)
INVENTORY	41		64	(23)
<i>LIABILITIES INCREASE/(DECREASE):</i>				
TRADE PAYABLES	(100)		(111)	11
<i>NET WORKING CAPITAL</i>	57		96	(39)

This is the more detailed calculation of the net 39m cash outflow that we saw earlier

## Calculating net working capital changes

Increases in current assets absorb cash. They mean we are tying up more cash by investing in current assets. This includes receivables and inventories.

In contrast, increases in current liabilities RELEASE cash. They mean we are enjoying more credit from suppliers and others. This includes trade payables and non-trade payables. We will still have to pay all our liabilities, of course. But we can pay them later, rather than now. So, in the meantime, we have more cash in our bank account, and improved operating cash flow.

We need to be careful to get our plus and minus signs the right way round here. It's a big help to invest time in: (1) tabulating; and (2) row and column labels with explicit sign conventions.

See the table, below left, which is based on the October 2010 CertICM exam. This is the more detailed calculation of the net 39m cash outflow that we saw earlier<sup>2</sup>.

## Investing and financing aren't 'operating'

Certainly important cash flows aren't generally considered to be 'operating' cash flows. Non-operating cash flows include investing and financing. So don't include investing or financing items in your calculation of operating cash flows.

Examples of investing and financing items (to exclude from operating cash flow calculations) would be buying or selling tangible fixed assets, and issuing or redeeming bonds.

## Recent exam performances

"Operating cash flow is a good example. Very few had this entirely right and many skipped it altogether." CertICM Examiner's Report, October 2012

"Many missed out this question and some mixed operating cash flow with cash flow. In addition, examinees were asked to comment on their result and this part of the question was often forgotten." CertICM Examiner's Report, October 2010

## Now it's your turn

The following example is based heavily on the October 2012 CertICM paper. Work through the 10 easy steps in turn to calculate the operating cash flow for the year.

You have the following information on Tasman Seas plc.

FIGURES IN 000s

CURRENT ASSETS	2011	2010	CURRENT LIABILITIES	2011	2010
CASH AND CASH EQUIVALENTS	1,193	1,364	TRADE PAYABLES	102,523	91,926
RECEIVABLES	130,938	106,991	NON-TRADE PAYABLES	35,750	17,245
INVENTORY	58,634	37,205	BORROWING	1,250	13,750
TOTAL	190,765	145,560	TOTAL	139,523	122,921

FIGURES IN 000s

INCOME STATEMENT 2011	
REVENUE	566,408
COST OF SALES	(473,905)
GROSS PROFIT	92,503
DEPRECIATION	(1,516)
AMORTISATION	(975)
DISTRIBUTION COSTS	(6,409)
ADMINISTRATION EXPENSES	(37,729)
OPERATING PROFIT	45,874
TAX PAID	(4,800)

## TEN EASY STEPS TO FULL MARKS

1. Calculate the after-tax operating profit.
2. Add back depreciation and amortisation.
3. Calculate the increase or decrease in receivables.
4. Deduct the increase in receivables, or add any decrease.
5. Calculate the increase or decrease in inventory.
6. Deduct the increase, or add any decrease.
7. Calculate the increase or decrease in trade payables (liabilities).
8. ADD the increase in payables, or deduct any decrease.
9. Calculate the increase or decrease in non-trade payables.
10. ADD the increase, or deduct any decrease.

The requirement in the exam stated: "From the information above, calculate the operating cash flow produced in 2011." This simply required following the 10 short steps noted above.

## Answers

### Steps 1 and 2

OPERATING PROFIT	45,874
(LESS): TAX PAID	(4,800)
AFTER TAX	41,074
ADD BACK: DEPRECIATION	1,516
ADD BACK: AMORTISATION	975
SUBTOTAL BELOW	43,565

### Steps 3-10

	LAST YEAR'S ASSET/(LIABILITY)	LESS	THIS YEAR'S ASSET/(LIABILITY)	= NET WORKING CAPITAL (INCREASE)/DECREASE
ASSETS (INCREASE)/DECREASE:				
RECEIVABLES	106,991		130,938	(23,947)
INVENTORY	37,205		58,634	(21,429)
LIABILITIES INCREASE/(DECREASE):				
TRADE PAYABLES	(91,926)		(102,523)	10,597
NON-TRADE PAYABLES	(17,245)		(35,750)	18,505

SUBTOTAL ABOVE	43,565
LESS: (INCREASE IN RECEIVABLES)	(23,947)
LESS: (INCREASE IN INVENTORY)	(21,429)
ADD: INCREASE IN TRADE PAYABLES	10,597
ADD: INCREASE IN NON-TRADE PAYABLES	18,505
NET OPERATING CASH INFLOW	27,291

You don't have to follow the same method as this one. Any clear and reliable method is entirely acceptable, and will score full marks in your exam

## Congratulations!

You will score full marks if you reproduce this calculation and supply comments.

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