

# TECHNICAL



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RELEVANT TO FOUNDATIONS IN ACCOUNTANCY PAPER FFM

## Relevant cash flows

The Paper FFM *Study Guide* references E3 c) and E3 d) require candidates to be able to both discuss the concept of relevant cash flows and identify/evaluate relevant cash flows.

Relevant cash flows can be examined in either a written or calculation format. It is also important that candidates can identify relevant cash flows in order to be able to use them in the context of investment appraisals, for example net present value calculations. Finally, relevant cash flows are not just an important part of the syllabus for Paper FFM as they can also be examined in later studies, for example Paper F9.

## **Definition**

A definition often used for relevant cash flows states that they must be *cash* flows that occur in the *future* and are *incremental*.

## Cash flow

While on the face of it obvious, only costs or revenues that give rise to a cash flow should be included. Accordingly, for example, depreciation charges should be excluded.

# **Future**

Any relevant cash flow should arise in the future. Anything that has occurred in the past is referred to as a sunk cost and should be excluded from relevant cash flows.

## Incremental

Only cash flows that arise because of the decision being made should be included; any cash flow that would have arisen anyway, sometimes referred to as a committed cost, should be excluded.

# Opportunity cost

While not specifically included in the definition of a relevant cash flow (as noted above) opportunity costs are also relevant cash flows. Opportunity costs are the revenues that are lost (or additional costs that arise) from moving existing resources from their current use and are therefore considered to be incremental cash flows arising in the future to be taken into account.

These definitions sound easy, and candidates often do well when relevant cash flows are examined in a written format. However, it is applying these concepts to a scenario and calculating/identifying the relevant cash flows that can often

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cause candidates problems, and it is this that I shall now focus on using excerpts from Question 1 in Section B from the December 2011 exam as examples where possible.

# **Numerical example**

## Scenario 1

In the context of whether a business owner will move her business, we are told that 'Mrs Clip currently advertises her business in the local newspapers and business directories, at a cost of \$1,000 per year payable in advance. Mrs Clip will carry on with this advertising...'.

# Relevant cash flows from scenario 1

On a relevant cash flow basis, we do not need to be concerned with what has been paid in the past, so the \$1,000 per year paid in the past is a sunk cost and can be ignored from relevant cash flows.

What about the \$1,000 per year in the future if Mrs Clip continues with the advertising? This would not be included as a relevant cash flow, because it is not incremental. The \$1,000 cash flow is being suffered now and will continue in the future, whether or not Mrs Clip moves her business to the town centre premises. The cash flow does not arise because of the decision being made; it arises anyway and is therefore not a relevant cash flow.

## Scenario 2

A further example of the incremental concept that many candidates dealt with incorrectly in the December 2011 exam, was that relating to revenue. Revenue from the existing business is \$40,000 per year. We are told that if Mrs Clip advertised her move to the town centre premises in the papers only, then revenue would increase by 40%, but if the move was advertised in both the papers and on the radio, then revenue would increase by 45% rather than 40%.

# Relevant cash flows from scenario 2

The existing revenue of \$40,000 is not incremental. This is the level of revenue that has been earned by the business in the past and will be earned in the future whether or not a move to the town centre premises is made. It is not dependent on the decision being made. In order to get the relevant cash flow, what is required is the incremental revenue – ie the extra revenue that will be earned if the move is made. Thus if the advertising is only in the papers, then the incremental revenue earned will be  $40\% \times $40,000 = $16,000$ . If the advertising is in both the papers and on the radio, then the incremental revenue will be  $45\% \times $40,000 = $18,000$ .

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## Scenario 3

Within this question, there were no non-cash flows. However, what if we had been told that Mrs Clip was going to buy salon fittings for \$3,000, and these would be depreciated over five years?

## Relevant cash flows for scenario 3

The \$3,000 paid for the salon fittings would be a relevant cash flow, and incorporated within any relevant cash flow schedule at the time at which the fittings were purchased. However, depreciation is not a cash flow and is therefore not a relevant cash flow. As a result, it the annual depreciation charge should not be included within any relevant cash flow schedule.

# Scenario 4

Opportunity costs arise less frequently within questions, but when they do, they can cause candidates real problems. There are no opportunity costs within the question we have been considering, but let us look at an example all the same. An opportunity cost arises if a resource is moved from its current use. So let us say that we have labour that is currently being used in manufacturing process A. The following figures are available for manufacturing process A:

	\$ per unit
Sales revenue	25
Materials	10
Labour (2 hours @ \$3 per hour)	6
Variable overhead	2
Contribution	7

Labour is now required for manufacturing process B within the same organisation. Each unit within manufacturing process B uses two hours of labour. No more labour can be hired and so it would have to be moved from manufacturing process A. What is the relevant cash flow for labour in process B?

# Relevant cash flows for scenario 4

Using our definition of a relevant cash flow to be a future, incremental cash flow, we can ignore the labour cost of \$6 as it is not incremental, it will be paid anyway, either within process A or process B. However, if we move the labour from A to B, the organisation will have to forgo the sales revenue of \$25 per

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unit, but they will not suffer the material cost of \$10 per unit or the variable cost of \$2 per unit. Thus the net effect, the net cost of moving the labour to process B is (\$25 - \$10 - \$2) = \$13 per unit. This \$13 is the opportunity cost, the net revenue lost from moving the labour from its current use. You may see a short cut to this calculation – that of adding together the contribution lost of \$7 to the labour cost of \$6. The total again being \$13 per unit. Although this seems theoretically incorrect, as the non-incremental labour cost of \$6 is being included, it is just a short cut to the answer.

## Conclusion

In a Section B question, candidates need to be able to both explain the principles behind relevant cash flows and be able to identify/calculate such cash flows, possibly for further use within an investment appraisal calculation. It is hoped this article will help candidates with these elements.

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