

CPD Spotlight Quiz

Managing Short Term Cash and Working Capital

Question 1

You are attempting to find the correct present value for a series of unequal annual payments in the future. Which of the following rates should you use for discounting?

- (a) forward rates
- (b) par rates
- (c) zero coupon rates
- (d) nominal semi-annual rates
- (e) don't know

Answer

The right answer is (c) zero coupon rates

Forward rates relate to periods starting in the future and are therefore unsuitable for finding a present value. Par rates relate to a series of equal future payments so the uneven nature of this series would rule out their use here. Use of the nominal semi-annual rates would be inappropriate because the future payments are annual and their uneven nature rules out the assumption of regular interest payments required for use of a nominal rate.

Question 2

What is the net return as an effective annual rate from **lending** in the form of the following instrument?

A USD yield instrument with 181 days maturity quoted as a 3.6% market yield if upfront issue costs are paid by the borrower of 0.5% on the nominal amount borrowed?

- (a) 1.8100%
- (b) 3.632%
- (c) 4.6470%
- (d) 4.6706%
- (e) Don't know

Answer

The right answer is (d) 4.6706%

The solution revolves around two features: first that USD interest calculations for less than one year use a 360 day year; and second that the fee is paid upfront.

If \$100 is nominally lent, then the initial cash flows are out \$100.00, in \$0.50 fee i.e. a net outflow of \$99.50.

*At maturity in 181 days the cash received is \$100 repayment plus interest of
 $\$100 \times 3.6\% \times 181/360 = 1.8100$ - this is answer (a) quoted as a percentage.
Converted to an EAR this would be*

$$(1+1.8100\%)^{365/181} - 1 = 3.6322\% \quad - \text{this is answer (b)}$$

So far this ignores the 0.50% fee, paid upfront.

To incorporate this, arguably the easiest way is to use the net amount lent and the net amount received back at maturity:

$$\text{Net amount lent} = 99.5000 \quad A$$

$$\text{Net amount received back} = 101.8100 \quad B$$

$$\text{Dividing B by A} = 1.023216, \text{ i.e. a rate of } 2.3216\% \text{ for the 181 day period.}$$

As an EAR this is $(1+2.3216\%)^{365/181} - 1 = 4.6706\%$ - the correct answer.

Answer (c) is obtained by taking answer (a) and adding 0.5% to get 2.3100%, then converting to an EAR of 4.6470%.

Question 3

As treasurer of a trading company with only mild seasonality your working capital to sales ratio (i.e. debtors plus stock less creditors as a percentage of sales) is fairly stable except for the peak period of two months when the investment in stock rises substantially.

You have been trying to establish the appropriate form of funding this working capital investment, from the perspective of risk management as well as cost. Which of these would you choose?

- (a) all overdraft – its cheapest
- (b) all term loan – its most secure
- (c) Fund the stable portion of the investment with term loan and top up the peak requirement with overdraft
- (d) Fund the stable portion with an overdraft and the top up peak requirement with commercial paper
- (e) Don't worry, it has always been funded in the past.
- (f) Don't know

Answer

The right answer is (c) *Fund the stable portion of the investment with term loan and top up the peak requirement with overdraft.*

Using this structure the stable portion is secure for the medium term and the peak requirement is funded on a low cost pay-as-you-go basis. A term loan for all of the requirement risks paying a higher rate for more of a loan than is required for most of the time.

Answer (c) is not riskless though – it is quite possible for poor performance - or frozen markets to create difficulties at peak times.

Question 4

There is more than one definition of working capital. If you are trying to determine the amount of the investment in working capital so that you might enter negotiations for its financing, which of the following definitions would be most appropriate to use?

- (a) current assets less creditors due in less than one year
- (b) stocks plus debtors less trade creditors less accruals
- (c) stocks plus debtors less trade creditors less short debt

- (d) Net worth plus Term liabilities plus provisions less fixed assets
- (e) Don't know

Answer

The right answer is (b) stocks plus debtors less trade creditors less accruals

Answers (a) (c) and (d) already include (or in the case of (a)) could well include short term debt already. The key issue when trying to finance working capital is to be clear what is being financed and what is financing. The net investment to be financed can not include debt!

Similarly, the measure should not include other means of financing the investment such as corporation tax payable or dividends payable.

Question 5

In times of financial difficulty or uncertainty treasurers fall back on the most basic of rules when considering investing cash. So, if you have cash to invest for three months which of the investment opportunities below would you choose?

- (a) a 3-month CD from an investment grade issuer at 3.85% EAR (effective annual rate).
- (b) a 5-month remaining maturity CD from an investment grade issuer from 3.90% EAR.
- (c) a 3-month deposit in a previously highly rated Northern European bank at 5.25% EAR.
- (d) a 3-month sterling CP issue from an unrated US utility at 3.93% EAR.
- (e) don't know

Answer

The right answer is (a) a 3-month CD from an investment grade issuer at 3.85% EAR

The basic rule for investing cash is: safety first, liquidity second and yield third. Under the current conditions of financial uncertainty safety must be paramount regardless of the rate. Again with uncertainty over rates, any hiccup in the markets could cause the rates on investment grade CDs to rise significantly; with two months maturity remaining on a 5 month CD at the time when you need to realise your investment, the return of capital is far from certain. Even given the recent record of rating agencies, investing in an unrated US utility would seem difficult to justify in order to gain 8 basis points on a 3-month investment.

Question 6

The Bank of England has issued a consultation paper regarding its proposals for working capital facilities. Which two proposed facilities are discussed?

- (a) a secured commercial paper facility for investment grade businesses and an invoice discounting facility for non-investment grade businesses
- (b) a secured commercial paper facility for potentially investment grade paper and a supply chain facility to provide working capital to investment grade companies' supplier bases
- (c) a secured commercial paper facility for non-investment grade businesses and a short term overdraft facility for non-investment grade businesses
- (d) a secured commercial paper facility for potentially investment grade paper and facility to guarantee short term loans for non-investment grade businesses from commercial banks
- (e) don't know

Answer

The right answer is (b) a secured commercial paper facility for potentially investment grade paper and a supply chain facility to provide working capital to investment grade companies' supplier bases.

The Supply Chain Finance Facility is at an early stage of discussion and so is not described in detail. One of the key questions will no doubt relate to the location of the credit risk in lending to large firms' supplier bases.

The Bank of England Consultation Document:

<http://www.bankofengland.co.uk/markets/apf/consultation090608.pdf>