Chapter 1—Introduction to corporate finance: Solutions to questions and problems

1 Presumably the current share value reflects the risk, timing and magnitude of all future cash flows, both short term *and* long term. If this is correct, then the statement is false.

2 Such organisations frequently pursue social or political missions, so many different goals are conceivable. One goal that is often cited is cost minimisation; that is, provide whatever goods and services at the lowest possible cost to society. A better approach might be to observe that even a not-for-profit business has equity. The equity is the desire to care for disadvantaged cases. Thus, one answer is that the appropriate goal is to maximise the value of the equity; that is maximise the care of needy cases.

3 The goal will be the same, but the best course of action toward that goal may be different because of differing social, political and economic institutions.

4 An argument can be made either way. At the one extreme we could argue that in a market economy all of these things are priced. There is therefore an optimal level of, for example, ethical and/or illegal behaviour, and the framework of share valuation explicitly includes these. At the other extreme we could argue that these are non-economic phenomena and are best handled through the political process. A classic (and highly relevant) question that illustrates this debate goes something like this: 'A firm has estimated that the cost of improving the safety of one of its products is $30 million. However, the firm believes that improving the safety of the product will only save $20 million in product liability claims. What should the firm do?'

5 Figure 1.9 clearly illustrates how a firm with multiple owners will face a dilemma. Different owners will have different preferences for Pl and P2 consumption. Owner C prefers more consumption now and less in P2. Owner A desires little consumption today, but more in P2. The three owners drawn in Figure 1.9 all want the firm to make different investment decisions. Owners A, B and C want the firm to invest at points *R*, *Q* and *P* respectively. Which owner does the firm please?

Fortunately, the firm does not have to make this difficult decision if a perfect capital market exists. As Figure 1.11 shows, the firm can make its investment decision independently of the owners' consumption preferences. It merely maximises the value of the firm by investing in all projects whose rate of return is greater than the market rate ($r > i$). This is all opportunities up to point *Q*.

The firm sets its investment/dividend policy as follows:

P1 Invest $a_1{:}d_1$ Pay $O{:}d_1$ as a period 1 dividend
P2 Projects return $O{:}d_2$ which is paid as dividend in period 2

If the owners don't like this dividend payout stream, they can use the capital market to satisfy their preferences.

In Figure 1.11, Owner B prefers less P1 consumption and more P2 consumption than the firm is offering. In Pl, the owner gets a dividend of $O{:}d_1$ but the owner only wanted $O{:}f_1$. In P2, the owner gets a dividend of $O{:}d_2$ but the owner wanted $O{:}f_2$.

What the owner will do is invest the excess P1 dividend ($f_1{:}d_1$) in the market, and spend the proceeds in P2. This enables the owner to move from point *Q* up to point *B*. At point *B* the owner's preferences are satisfied and the owner is actually on a higher utility curve than back in Figure 1.9 when a PCM did not exist.

Likewise, Figure 1.12 shows that all the firm needs to do is invest at point *Q* and let the owners use the capital market to arrange their affairs so that consumption preferences are satisfied. This is Fisher's Separation Theorem: firms can separate their investment decisions from the owners' preferences. The existence of a PCM is crucial to this theorem.

6 Firm decisions with imperfect capital markets

Consider Figure 1.14 where $i_1 < i < i_b$ (i.e. the lending or investing interest rate is less than the borrowing interest rate).

Imperfections in the capital market have led to a situation in which the borrowing and lending rates may differ. For borrowers the optimal point of production is $Y_{b,}$ and for lenders the optimal point is Y_L. Thus, when borrowing and lending rates differ (i.e. there are imperfections in the market), there is no longer a unique production decision that would be made by any current owner regardless of the owner's tastes: Arrow's Impossibility Theorem.

Note that market imperfections cannot exist in a competitive market.

7 A firm with many owners should invest in all projects whose rate of return exceeds what the firm could get from investing the money in the capital market (i.e. $r > i$).

a It is a simple calculation to derive the rate of return which will be earned on each proposal. Proposal 1 gives a return of (240 000 – 200 000) ÷÷200 000 = 20%. This means Proposal 1 is desirable because, if we did not invest in it, the best we could do is to invest the $200 000 in the market, which would only provide a return of $220 000 ($200 000 × 1.10). On the other hand, Proposal 2 gives a return of (210 000 – 200 000) ÷ 200 000 = 5%. The firm should not invest in this proposal because it can earn a higher return (10%) from the market.

Proposal	Outlay ($)	Next period's return ($)	% return

1	200 000	240 000	20.0
2	200 000	210 000	5.0
3	200 000	215 000	7.5
4	200 000	218 000	9.0
5	200 000	225 000	12.5
6	200 000	220 000	10.0

Therefore, the firm will only invest in Proposals 1 and 5. It would be indifferent to proposal 6.

b Proposals 1 and 5 will require an investment of $400 000 (today – period 1). Of the initial endowment of $1 000 000, this leaves $600 000 excess, which will be paid as the period 1 dividend. Proposals 1 and 5 return $240 000 and $225 000 respectively, which means the period 2 dividend will be $465 000.

c The share capital of the firm consists of 10 000 shares. Therefore, the dividend per share will be $60 in period 1 (600 000 ÷ 10 000) and $46.50 in period 2 (465 000 ÷ 10 000).

By following the investment and dividend strategy outlined above, the value of the firm will be maximised. All shareholders will receive *per share* dividends of $60 in Pl and $46.50 in P2, regardless of their preferences between P1 and P2 consumption. As we shall see below, the existence of a capital market enables shareholders to achieve their desired P1 and P2 consumptions. That is, if the $60–$46.50 payout does not suit the shareholder, the shareholder can invest or borrow in the market to exactly achieve their desired outcomes. This will demonstrate Fisher’s Separation Theorem: firms do not need to worry about the consumption preferences of each individual owner; their job is simply to maximise the value of the firm.

d An owner of 2 000 shares will receive a dividend stream of:

Period 1	$60 × 2 000	= $120 000
Period 2	$46.50 × 2 000	= $93 000

The question is really saying that this stream does not suit the shareholder. The shareholder has a stronger preference for consumption next year and only wishes to consume $10 000 today. The shareholder will invest the excess $110 000 (120 000 – 10 000) in the capital market at 10% interest.

This investment will mature next year and will be worth $121 000 (110 000 × 1.10). Combined with the P2 dividend of $93 000, the shareholder can consume $214 000 (121 000 + 93 000) in P2.

e The shareholder in this part has a stronger preference for consumption today and is less concerned about next year’s consumption. Although they will receive $93 000 in dividends next year, this is more than they desire ($50 000). The shareholder will use the capital market to borrow against the excess future dividend (93 000 – 50 000) and consume that money today. This means they will move down the market line.

Next year's $93 000 dividend will be used as follows:

- $50 000 required for consumption
- $43 000 excess dividend used to pay off borrowing.

Therefore, the shareholder will borrow an amount of money in Pl which will be precisely paid off by the excess $43 000 in P2. That is, in P1 borrow $39 090.91 (43 000 ÷ 1.10). This enables consumption today of $159 090.91 (120 000 + 39 090.91).

This question has illustrated how the firm does NOT need to worry (or even be aware) of the owners' consumption preferences. As long as the capital market exists, the owners can arrange their affairs to meet their consumption preferences.

8a Refer to Figure 1.15. *Q* is the optimal point of production for the firm. At this point, the wealth and utility of all owners is maximised (puts them on highest utility curve). To reach point *Q*, the firm must invest a_1d_1 in available projects.

In practice, how does the firm know what a_1d_1 is? It employs one of the following two investment rules.

NPV rule

In a two-period world, the NPV rule is as follows:

$$\text{NPV} = \frac{X_2}{1+i} - I_1$$

The NPV compares the initial outlay required by the project (I) against the return in P2 from the project (X_2) in present value terms. The decision rule is:

if NPV	+ve	accept project
if NPV	–ve	reject project
if NPV	0	indifferent

It follows that the value of the firm will change according to the NPV of projects undertaken. If we invest in positive NPV projects, the firm value increases by the NPV, and if we invest in negative NPV projects the firm value will fall by the NPV.

IRR rule

The second decision rule is IRR, which is found by solving for *r* in the following equation:

$$\frac{X_2}{1+r} = I_1 = 0$$

The IRR figure (r) is an average rate of return from the project over its duration. This figure must be compared to the opportunity cost of funds (the return which the firm could have earned in the market).

The accept/reject decision rule for IRR is:

if $r > i$ accept
if $r < i$ reject
if $r = i$ indifferent

Given that r and i represent the slopes of the production frontier and market line in Figure 1.14 respectively, we can see that the IRR rule is merely accepting all projects up to the point where the next project provides the same return as that available in the market (i.e. point Q).

The NPV and IRR rules are essentially the same, in that they give the same accept/reject decisions for projects.

b The issue of optimal capital structure (D/E) relates to the financing decision of the firm. That is, do we use equity or debt funding?

Under conditions of certainty and perfect capital markets, there is only one interest rate prevailing in the market, and this is the riskless rate i. Because there is no risk, there is no real distinction between the equity securities which a firm might issue and its debt securities. Consequently, questions of capital structure (combinations of debt and equity) do not exist. The only relevant question is the amount of funds required by the firm.

c The dividend decision (how much dividend we pay) does not affect firm value. Figure 1.17 shows that the firm can borrow money to pay any amount of dividends in period 1 as they wish. In Figure 1.17, the firm has already borrowed Ob_1 to finance all profitable projects (up to point Q), and can borrow even more money (b_1b_2) to pay a Pl dividend.

Of course, all money borrowed in P1 must be repaid in P2 with interest. This means that the P2 dividend will be less than it would have been had a Pl dividend not been paid. But the PV of both dividends (P1 + P2) will be the same. Hence, by borrowing money to pay a P1 dividend, the firm is only trading P2 dividends for P1 dividends, without any effect on total owner wealth.

9a There is a $l m spending constraint. It is not good enough to rank the individual projects in order of return and then accept them in order. You need to look at all the possible combinations of projects whose combined outlay is less than or equal to $l m, and select the combination with the highest NPV.

However, a quick calculation of NPVs may reveal a project not even worth considering:

Project	***Outlay ($)***	***Present value of expected cash***	***NPV***

		flow ($)	
1	500 000	610 000	110 000
2	150 000	142 500	-7 500
3	350 000	420 000	70 000
4	450 000	531 000	81 000
5	200 000	240 000	40 000
6	400 000	420 000	20 000

This reveals that Project 2 has a negative NPV and should not be considered. Note that the returns from each project are already expressed in PV terms. Therefore, there is no need to discount those cash flows at 10%. **Students: be careful to note whether the cash flows given to you are in PV terms or not.**

Also, this question is not necessarily within a two-period world. We do not know the duration of the suggested projects or the pattern of returns. We only know their PV. For example, the $610 000 PV of cash flows from Project 1 may represent cash inflows over a 10-year period discounted at 10%.

Below is a schedule of all combinations of projects having an investment outlay of $lm or less.

Combo	***Projects***	***PV of outlay ($)***	***Total cash flow ($)***	***NPV ($)***
A	1,3	850 000	1 030 000	180 000
B	1,4	950 000	1 141 000	191 000
C	1,5	700 000	850 000	150 000
D	1,6	900 000	1 030 000	130 000
E	3,4	800 000	951 000	151 000
F	3,5	550 000	660 000	110 000
G	3,6	750 000	840 000	90 000
H	4,5	650 000	771 000	121 000
I	4,6	850 000	951 000	101 000
J	5,6	600 000	660 000	60 000
K	3,4,5	1 000 000	1 191 000	191 000
L	3,5,6	950 000	1 080 000	130 000

The firm is indifferent between Proposals B and K. Any unused funds ($50 000 for Proposal B) can be retained by the firm and invested at market rate = 10%, or paid out immediately as a dividend.

Proposal K	Spend $1 000 000 and give a PV of cash flow of $1 191 000
= NPV of $191 000

Proposal B	Spend $950 000 and give a PV of cash flow of $1 141 000
= NPV of $191 000

The surplus $50 000 can be invested or paid as a dividend. If invested at 10%, this gives $55 000 return in year 2. PV of $55 000 = (55 000 ÷ 1.10) = $50 000.

NPV of this = 50 000 – 50 000 = **ZERO**

NPV = \$191 000 + zero = **\$191 000**

b The current soft capital rationing policy (not investing more than \$l m) is not maximising the value of the firm. As calculated above, it is \$191 000 + initial endowment under the policy.

However, all projects (with the exception of Project 2) have a positive NPV. If there were no spending restraints we would invest in Projects 1, 3, 4, 5 and 6. This would require \$1 900 000 in outlays but would bring in \$2 221 000 in PV of cash flows.

This represents a total NPV of \$321 000, compared to a NPV of \$191 000 provided by proposal B or K. Hence, the value of the firm is \$130 000 (321 000 – 191 000) less than its optimal value due to the spending constraint.

10a \$500 000 is the maximum limit on spending. We need to look at all combinations of projects whose total investment required is less than or equal to \$500 000 and choose the one that provides the largest total dollar return.

	Outlay (\$)	Period 1 dividend	Period 2 dividend	Firm value	NPV (\$)
1	450 000	50 000	565 000	532 906	32 906
1	300 000	200 000	415 000	554 700	54 700
1	350 000	150 000	432 500	519 658	19 658
1	500 000	nil	585 000	500 000	nil
3	450 000	50 000	557 500	526 496	26 496

(i) Projects 1 and 3.

(ii) Total investment \$300 000.

(iii) This will leave a \$200 000 period 1 dividend.

(iv) The period 2 dividend will be \$415 000.

(v) Firm value = present value of period 1 and period 2 dividend payments = \$200 000 + \$415 000 ÷ (1 + 17%)
= \$554 700

b The temptation is to pick the project with the highest rate of return: Project 1 with 45%. However, remember that positive NPV projects increase firm value. The firm’s aim is not to maximise rate of return (IRR is a percentage type of figure). The aim is to maximise NPV. Therefore, Project 3, if selected by itself, will maximise the present value of dividends. The period 1 dividend is the surplus $300 000 and the period 2 dividend is the $270 000 return from Project 3.

	Outlay ($)	P_2 return ($)	PV of P_2 return ($)	NPV ($)	Dividend surplus ($)	Firm value ($)
1	100 000	145 000	123 932	23 932	400 000	523 932
2	350 000	420 000	358 974	8 974	150 000	508 974
3	200 000	270 000	230 769	30 769	300 000	530 769
4	250 000	287 500	245 727	(4 273)	250 000	495 727
5	400 000	440 000	376 068	(23 932)	100 000	476 068

c (i) If there were no spending restrictions, the firm would employ the NPV rule (or IRR) and select all positive NPV projects (all projects where $r > i$).

Project	Outlay ($)	P_2 return ($)	PV of P_2 return ($)	NPV ($)	IRR (%)
1	100 000	145 000	123 932	23 932	45
2	350 000	420 000	358 974	8 974	20
3	200 000	270 000	230 769	30 769	35
4	250 000	287 500	245 727	(4 273)	15
5	400 000	440 000	376 068	(23 932)	10

Hence, the firm would accept Projects l, 2 and 3, and reject Projects 4 and 5.

(ii) The funds required are $650 000.

(iii) Given the initial endowment of $500 000, they will need to borrow $150 000 if they are to reach their optimal investment level.

(iv) If they borrow exactly $150 000, then there are no funds for a period 1 dividend. The period 2 dividend will be the return from Projects 1, 2 and 3: $835 000 **less the repayment of the funds borrowed and interest** (150 000 × 117% = 175 500) gives $659 500.

(v) Firm value = present value of period 1 and period 2 dividend payments

= nil + $659 500/(1 + 17%)

= $563 675

= initial endowment ($500 000) + NPV of Projects 1, 2 and 3 ($63 675)

(vi) Yes, the value of the firm has increased by $8 975 (563 675 – 554 700) when the capital rationing policy was removed. This indicates that capital rationing of any description may lead to a suboptimal firm value.

d (i) If the firm wanted to pay a period 1 dividend of $100 000, it would have to borrow an additional $100 000 (in addition to the first

$150 000).

(ii) The period 2 dividend will be the same as before, less the second lot of borrowing + interest (100 000 × 117% = $117 000). Hence, $542 500.

(iii) Firm value = present value of period 1 and period 2 dividend payments

= $100 000 + $542 500/(1 + 17%)
= $563 675

This is the same firm value as in part c(v) above. The fact that the firm borrowed $100 000 to pay a *period 1* dividend has not changed the value. It merely represents a trade-off made by the shareholders of period 2 consumption for period 1 consumption. Hence, dividend policy (and financing policy) is irrelevant to firm value.

11a

Project	Period 2 cash ($)	Outlay ($)	IRR (%)	NPV ($)
1	152 250	121 800	25.0	16 609
2	125 425	98 760	27.0	15 263
3	118 250	110 000	7.5	–2 500
4	121 555	105 700	15.0	4 805

b Accept Project 1, the highest NPV.

c Acceptable investments are 1, 2 and 4. Outlay = $121 800 + $98 760 + $105 700 = $326 260
Borrow $26 260 at 10% and repay $28 886
Period 1 dividend = nil
Period 2 dividend = 152 250 + 125 425 + 121 555 – 28 886 = $370 344
NPV = $370 344 ÷ 1.1 – $300 000 = $36 677
IRR $16 609 + $15 263 + $4 805 = $36 677

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Project	Outlay ($)	IRR (%)	P2 ($)	NPV ($)
1	110 000	22	134 200	12 000
2	60 000	30	78 000	10 909

3	76 000	9	82 840	–691
4	90 000	17	105 300	5 727
5	93 000	6	98 580	–3 382

a Accept Projects 1, 2 and 4 because the IRR is greater than 10%.
NPV = $12 000 + $10 909 + $5 727 = $28 636
Value of the firm = $500 000 + $28 636 = $528 636

b

Funds available	$500 000
Total outlays	$260 000
Available for Dividend 1 (D1)	$240 000
J Low's share (10% of D1)	$24 000

Available for Dividend 2 (D2)
= $110 000(1.22) + $60 000(1.3) + $90 000(1.17)
= $134 200 + $78 000 + $105 300 = $317 500
J Low's share (10% of D2) = $31 750

c

In period 1 J Low receives		= $23 000
She borrows	= $50 000 – $23 000	= $27 000
She repays	= $27 000(1.1)	= $29 700
Period 2 expenditure	= $32 850 – $29 700	= $ 3 150

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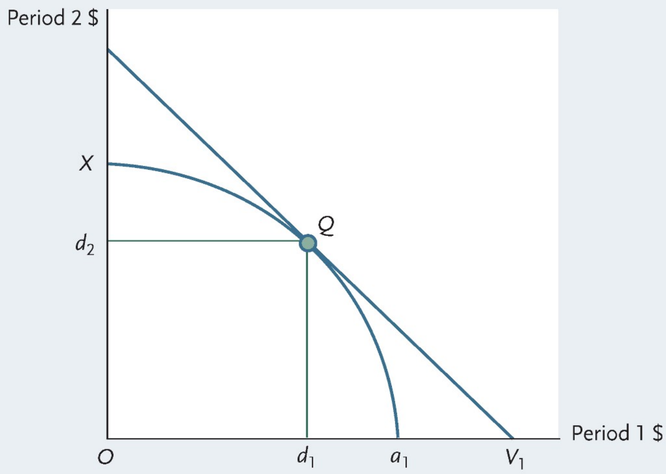
Figure 1.15 The firm's investment decision



Project	P2 ($)	Outlay ($)	IRR (%)	NPV ($)
1	122 000	100 000	22.0	10 909
2	65 000	50 000	30.0	9 091
3	93 740	86 000	9.0	–782
4	107 640	92 000	17.0	5 855
5	100 700	95 000	6.0	–3 455

Initial endowment	*oa*	$200 000
Borrowings	ob_1	$ 42 000
Repayment	*PB* $42 000 (1.1)	$ 46 200
NPV	*aA*	$ 25 855
Value = $200 000 + $25 855 = *OA*		$225 855

or

($122 000 + $65 000 + $107 640 – $46 200)/1.1 $225 855

14a NPV = \$5 470 ÷ 1.08 – \$5 000 = (\$64.81)

b IRR = \$7 590/\$6 600 – 1 = 15%

c

Project	*P2*	*Outlay (\$)*	*IRR (%)*	*NPV (\$)*	
A	2 460	2 000	23.0	278	Accept
B	5 900	5 000	18.0	463	Accept
C	7 460	7 000	6.6	–93	Reject
D	3 340	3 000	11.3	93	Accept
E	10 800	10 000	8.0	0	Indifferent
F	6 680	6 000	11.3	185	Accept

Invest in A, B, D and F.

d Total available period 2 = \$2 460 + \$5 900 + \$3 340 + \$6 680 = \$18 380
Funds invested (A, B, D and F) = \$16 000
Funds remaining after investment = \$20 000 – \$16 000 = \$ 4 000
Amount to be borrowed = \$10 000 – \$4 000 = \$ 6 000
Repayment = \$6 000 × 1.08 = \$ 6 480
Balance available period 2 = \$18 380 – \$6 480 = \$11 900

e Acceptable projects are A, B, D and E.
Combined outlays = \$16 000
Available savings = \$13 000
Funds to borrow = \$ 3 000

f Available funds period 2 = \$18 380
Repayment = \$3 000 × 1.08 = \$ 3 240
Balance period 2 = \$15 140
Period 1 dollars = \$15 140/1.08 = \$14 019
Increase in wealth = \$14 019 – \$13 000 = \$ 1 019

g Without borrowing there is \$13 000 to invest, so accept Projects A, B and F.
Outlay = \$2 000 + \$5 000 + \$6 000 = \$13 000
Period 2 cash flow = \$2 460 + \$5 900 + \$6 680 = \$15 040
In period 1 dollars = \$15 040/1.08 = \$13 926
Increase in wealth = \$13 926 – \$13 000 = \$ 926

By borrowing, the increase in wealth changes from \$926 to \$1019. You are \$93 better off by borrowing. The \$93 is the NPV of investment D. Accept investments as long as you can identify returns higher than the market rate of return or equivalently accept investments where the present value is greater than the outlay when the present value is derived using the market rate of return even if you have to borrow.

15 a to c

Helen can borrow against her future income as follows:

Helen will receive $99 000 in period 1.

Requires $60 000 + $50 000 = $110 000

Shortage in period 1 = $110 000 – $99 000 = $11 000 (c)

Helen will borrow $11 000.

She will need to repay in period 2 $11 000 × 1.08 = $11 880

Helen will receive $115 825 in period 2

Requires $65 000 + $11 880 = $76 880

Surplus in period 2 = $115 825 – $76 880 = $38 945 (b)

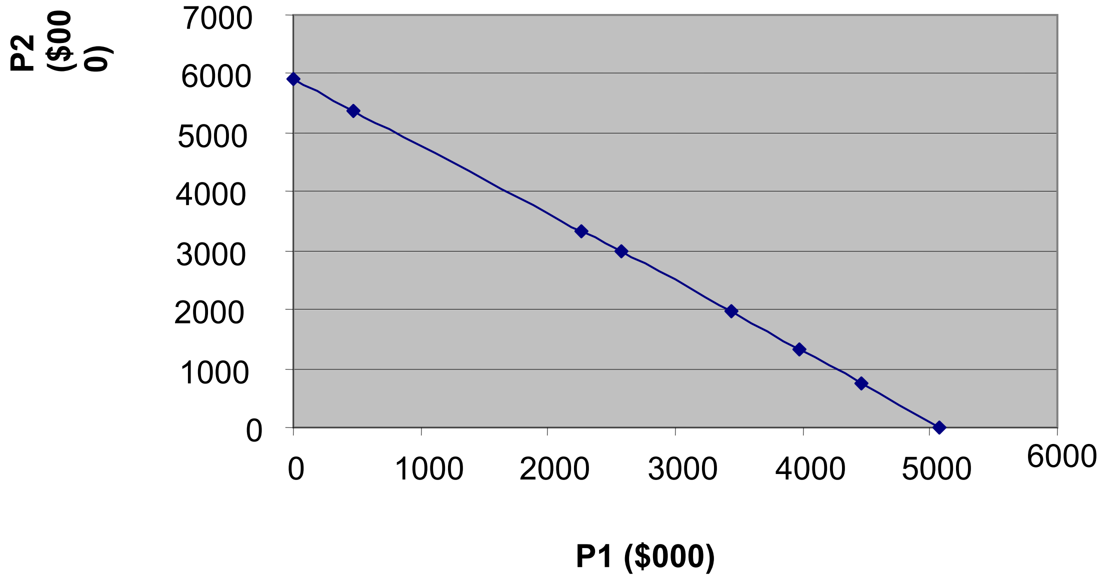
16 The projects have been ranked in terms of IRR.

Project	*Outlay ($)*	*P2 ($)*	*Profit ($)*	*NPV ($)*	*IRR (%)*
G	615 000	744 150	129 150	61 500	21
E	490 000	588 000	98 000	44 545	20
F	530 050	630 760	100 710	43 368	19
D	875 000	1 023 750	148 750	55 682	17
A	305 555	351 388	45 833	13 889	15
C	1 792 600	2 043 564	250 964	65 185	14
B	472 890	524 908	52 018	4 299	11

The project with the greatest IRR is Project G. This project produces the combination of $4 466 095 in P1 and $744 150 in P2. The projects were ranked on the basis of IRR as the slope of the production possibility frontier is the IRR.

	P1 ($)	*P2 ($)*
	5 081 095	0
Accept G	4 466 095	744 150
Plus E	3 976 095	1 332 150
Plus F	3 446 045	1 962 910
Plus D	2 571 045	2 986 660
Plus A	2 265 490	3 338 048
Plus C	472 890	5 381 612
Plus B	0	5 906 520

When the market rate of interest is 10%, all projects are acceptable. The market rate of interest must be greater than 11% before you would start to reject projects on the basis of negative NPVs or where r is less than i.



If the project developer undertakes all projects with a positive NPV, the wealth of the developer will increase.

17 If the developer were to set a cut off for project acceptability at 15% (being one and a half times the market rate of interest), the developer would reject Projects C and B, which have a combined NPV of $69 485. The developer is not maximising the value of the firm by foregoing projects worth an extra $69 485 in firm value.

The question of risk is addressed in later chapters. At this stage, NPV is calculated as the future cash flows discounted at some rate that reflects risk. If the uncertainty or risk is correctly reflected in the interest rate used to convert future periods to current periods, then the NPV reflects the increase in value or wealth after accounting for the risk.

The increase in risk will probably increase the rate used to calculate the NPV.

18 Current value of Film Promotions = $13 000 000
Cash not invested = 2 000 000
Therefore current value of P_2 cash flow = 11 000 000
P_2 cash flow in P_2 dollars = 11 000 000 × 1.15
= 12 650 000
Return from investment = 12 650 000 ÷ 8 000 000 – 1 = .58125 or 58.125%.

19 The rate of return for the firm is determined by its ability to transform period 1 dollars into future period dollars; that is, the opportunities provided by the investment proposals it can select. In the simple two-period model, it has been shown as the production possibility frontier, where some of the firm's investment return is more than the market rate of return. When the firm only accepts projects with a return greater than or equal to the market rate of return, then its return must be greater than the market rate.

20 No, it is not possible given the assumptions. Perfect certainty means there is no difference between debt and equity in Gary's Logistics, therefore both securities would have to earn at least 16 per cent. If there is uncertainty, then the risk of equity will be greater than the risk of debt (there will be more discussion on this in later chapters). We will see that the higher the risk, the higher the return. The perfect capital market means all investors will have access to all information so they will all require the same return. As rational investors, they will want more return in order to increase their utility.

21 Perfect certainty simply means that the future is known with certainty. There is no need to estimate future cash flows and returns. A perfect capital market exists if a number of conditions hold: namely that all participants have access to all available information and all may participate in the market freely. There is no market interference or externalities such as monopolies or government restrictions or conditions where some investors or borrowers may get better conditions than others.

MINICASE ANSWERS

1 The advantages of changing from a sole proprietorship to a company include:

(i) separation of ownership from management, allowing for sale/transfer of ownership and not limiting the lifespan of the company to the individual owner

(ii) a company is a legal entity and can borrow money and act in its own name, therefore shareholders have limited liability, unlike sole proprietors who have unlimited liability.

2 Changing to a company structure should help the McGees grow their business. The ability to borrow in a company name and/or obtain equity funding by selling a part of the company to others would allow them to invest the needed funds in assets (equipment) and employ more staff to deal with the increased demand for their product.

3 Recommend the McGees change to a company structure to get the benefit of borrowings and equity to grow the business. Company structure also gives them an option to scale back their hands-on involvement and/or sell out of the business when it reaches its most successful point.