

## Investment appraisal model for new FDI (simplified example)

The following sheets in this workbook can be used to model investment returns for new FDI under a number of different scenarios

Assumptions for revenues, direct and operating expenses, tax rates and dividend policy are entered in the green shaded cells

Assumptions for fixed asset expenditure and its financing using either debt or equity are also entered

The Profit & Loss Account projections are then used to create pro forma Balance Sheets reflecting the impact of the parent company's initial investment

In this case, the four scenarios are as follows:

Base Case, using the assumptions shown in the green shaded cells

Pessimistic Case, assuming that direct and operating costs are 10% higher than anticipated

Tax holiday scenario (100% tax holiday for first 5 years of operation)

Investment grant scenario (investment incentives equal to 50% of initial fixed asset investment)

The summary results are as follows:

£000s	Base Case	Pessimistic Case	Tax Holiday	Investment Grant
Equity invested by parent	£6,000	£6,000	£4,000	£5,000
Cash at end Year 10 (£000s)	£319	£307	£378	£500
After tax profits in Year 10 (£000s)	£3,290	£1,645	£3,056	£3,173
Internal Rate of Return	21.9%	11.1%	30.3%	25.6%
After-tax value of incentive	£0	£0	£2,552	£325

**Scenario 1: Base Case**

**Investment appraisal model (new FDI); simplified example**

*NB: The model is a dynamic one, so changes to any of the assumptions in the green shaded cells will be reflected in the P&L, Balance Sheet, Cash flows and performance ratios*

	Year									
Assumptions (shaded cells)	1	2	3	4	5	6	7	8	9	10
Fiscal year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Revenue growth			20%	20%	15%	15%	15%	15%	15%	15%
COGS/Revenues		50%	50%	50%	50%	50%	50%	50%	50%	50%
Operating costs/Revenues		25%	25%	25%	25%	25%	25%	25%	25%	25%
Current Assets/Revenues		30%	30%	30%	30%	30%	30%	30%	30%	30%
Current liabilities/Revenues		15%	15%	15%	15%	15%	15%	15%	15%	15%
Depreciation as % yr end assets		10%	10%	10%	10%	10%	10%	10%	10%	10%
Borrowing costs		14%	14%	14%	14%	14%	14%	14%	14%	14%
Tax rate on net profit		35%	35%	35%	35%	35%	35%	35%	35%	35%
Impact of tax holiday		0%	0%	0%	0%	0%	0%	0%	0%	0%
Investment incentives (taxable)										
Additions to Fixed assets	£5,000	£5,000	£1,000	£1,000	£1,500	£1,500	£1,500	£1,500	£1,500	£1,500
Equity injection	£6,000									
New LT Debt	£4,000									
Repayments of LT Debt					£-500	£-500				£-500

Profit & Loss (£000s)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Revenues		£8,000	£9,600	£11,520	£13,248	£15,235	£17,520	£20,149	£23,171	£26,646
Investment incentives		£0	£0	£0	£0	£0	£0	£0	£0	£0
Cost of goods sold		£-4,000	£-4,800	£-5,760	£-6,624	£-7,618	£-8,760	£-10,074	£-11,585	£-13,323
Depreciation		£-500	£-950	£-955	£-960	£-1,014	£-1,062	£-1,106	£-1,145	£-1,181
Gross profit		£3,500	£3,850	£4,805	£5,665	£6,604	£7,698	£8,968	£10,440	£12,142
Operating costs		£-2,000	£-2,400	£-2,880	£-3,312	£-3,809	£-4,380	£-5,037	£-5,793	£-6,662
Operating profit		£1,500	£1,450	£1,925	£2,353	£2,795	£3,318	£3,931	£4,647	£5,481
Financing costs		£-560	£-560	£-560	£-560	£-490	£-420	£-420	£-420	£-420
Pre-tax profit		£940	£890	£1,365	£1,793	£2,305	£2,898	£3,511	£4,227	£5,061
Tax		£-329	£-312	£-478	£-627	£-807	£-1,014	£-1,229	£-1,480	£-1,771
Net profit		£611	£579	£887	£1,165	£1,498	£1,884	£2,282	£2,748	£3,290
Dividends							£-1,500	£-1,500	£-2,000	£-2,000
Net addition to shareholders' funds		£611	£579	£887	£1,165	£1,498	£384	£782	£748	£1,290



**Scenario 2: Pessimistic Case (Direct and Operating Costs 10% higher than Base Case)**

**Changed assumptions shaded in yellow**

*NB: The model is a dynamic one, so changes to any of the assumptions in the green shaded cells will be reflected in the P&L, Balance Sheet, Cash flows and performance ratios*

	Year									
Assumptions (shaded cells)	1	2	3	4	5	6	7	8	9	10
Fiscal year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Revenue growth			20%	20%	15%	15%	15%	15%	15%	15%
COGS/Revenues		55%	55%	55%	55%	55%	55%	55%	55%	55%
Operating costs/Revenues		28%	28%	28%	28%	28%	28%	28%	28%	28%
Current Assets/Revenues		30%	30%	30%	30%	30%	30%	30%	30%	30%
Current liabilities/Revenues		15%	15%	15%	15%	15%	15%	15%	15%	15%
Depreciation as % yr end assets		10%	10%	10%	10%	10%	10%	10%	10%	10%
Borrowing costs		14%	14%	14%	14%	14%	14%	14%	14%	14%
Tax rate on net profit		35%	35%	35%	35%	35%	35%	35%	35%	35%
Impact of tax holiday		0%	0%	0%	0%	0%	0%	0%	0%	0%
Investment incentives (taxable)										
Additions to Fixed assets	£5,000	£5,000	£1,000	£1,000	£1,500	£1,500	£1,500	£1,500	£1,500	£1,500
Equity injection	£6,000									
New LT Debt	£6,000						£500	£300		
Repayments of LT Debt										

Profit & Loss (£000s)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Revenues		£8,000	£9,600	£11,520	£13,248	£15,235	£17,520	£20,149	£23,171	£26,646
Investment incentives		£0	£0	£0	£0	£0	£0	£0	£0	£0
Cost of goods sold		-£4,400	-£5,280	-£6,336	-£7,286	-£8,379	-£9,636	-£11,082	-£12,744	-£14,656
Depreciation		-£500	-£950	-£955	-£960	-£1,014	-£1,062	-£1,106	-£1,145	-£1,181
Gross profit		£3,100	£3,370	£4,229	£5,002	£5,842	£6,822	£7,961	£9,281	£10,810
Operating costs		-£2,200	-£2,640	-£3,168	-£3,643	-£4,190	-£4,818	-£5,541	-£6,372	-£7,328
Operating profit		£900	£730	£1,061	£1,359	£1,653	£2,004	£2,420	£2,910	£3,482
Financing costs		-£840	-£840	-£840	-£840	-£840	-£840	-£910	-£952	-£952
Pre-tax profit		£60	-£110	£221	£519	£813	£1,164	£1,510	£1,958	£2,530
Tax		-£21	£39	-£77	-£182	-£284	-£407	-£529	-£685	-£886
Net profit		£39	-£72	£144	£337	£528	£757	£982	£1,272	£1,645
Dividends							-£500	-£500	-£500	-£500
Net addition to shareholders' funds		£39	-£72	£144	£337	£528	£257	£482	£772	£1,145



**Scenario 3: 100% tax holiday Years 1 to 5**

**Changed assumptions shaded in yellow**

*NB: The model is a dynamic one, so changes to any of the assumptions in the green shaded cells will be reflected in the P&L, Balance Sheet, Cash flows and performance ratios*

	Year									
Assumptions (shaded cells)	1	2	3	4	5	6	7	8	9	10
Fiscal year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Revenue growth			20%	20%	15%	15%	15%	15%	15%	15%
COGS/Revenues		50%	50%	50%	50%	50%	50%	50%	50%	50%
Operating costs/Revenues		25%	25%	25%	25%	25%	25%	25%	25%	25%
Current Assets/Revenues		30%	30%	30%	30%	30%	30%	30%	30%	30%
Current liabilities/Revenues		15%	15%	15%	15%	15%	15%	15%	15%	15%
Depreciation as % yr end assets		10%	10%	10%	10%	10%	10%	10%	10%	10%
Borrowing costs		12%	12%	12%	12%	12%	12%	12%	12%	12%
Tax rate on net profit		35%	35%	35%	35%	35%	35%	35%	35%	35%
Impact of tax holiday		-35%	-35%	-35%	-35%	0%	0%	0%	0%	0%
Investment incentives (taxable)										
Additions to Fixed assets	£5,000	£5,000	£1,000	£1,000	£1,500	£1,500	£1,500	£1,500	£1,500	£1,500
Equity injection	£4,000									
New LT Debt	£6,000						£500			
Repayments of LT Debt										

Profit & Loss (£000s)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Revenues		£8,000	£9,600	£11,520	£13,248	£15,235	£17,520	£20,149	£23,171	£26,646
Investment incentives		£0	£0	£0	£0	£0	£0	£0	£0	£0
Cost of goods sold		-£4,000	-£4,800	-£5,760	-£6,624	-£7,618	-£8,760	-£10,074	-£11,585	-£13,323
Depreciation		-£500	-£950	-£955	-£960	-£1,014	-£1,062	-£1,106	-£1,145	-£1,181
Gross profit		£3,500	£3,850	£4,805	£5,665	£6,604	£7,698	£8,968	£10,440	£12,142
Operating costs		-£2,000	-£2,400	-£2,880	-£3,312	-£3,809	-£4,380	-£5,037	-£5,793	-£6,662
Operating profit		£1,500	£1,450	£1,925	£2,353	£2,795	£3,318	£3,931	£4,647	£5,481
Financing costs		-£720	-£720	-£720	-£720	-£720	-£720	-£780	-£780	-£780
Pre-tax profit		£780	£730	£1,205	£1,633	£2,075	£2,598	£3,151	£3,867	£4,701
Tax		£0	£0	£0	£0	-£726	-£909	-£1,103	-£1,354	-£1,645
Net profit		£780	£730	£1,205	£1,633	£1,349	£1,689	£2,048	£2,514	£3,056
Dividends				-£500	-£1,000	-£1,000	-£1,500	-£1,500	-£1,500	-£2,000
Net addition to shareholders' funds		£780	£730	£705	£633	£349	£189	£548	£1,014	£1,056



**Scenario 4: Investment incentive equal to 50% of initial fixed asset investment**

**Changed assumptions shaded in yellow**

*NB: The model is a dynamic one, so changes to any of the assumptions in the green shaded cells will be reflected in the P&L, Balance Sheet, Cash flows and performance ratios*

	Year									
Assumptions (shaded cells)	1	2	3	4	5	6	7	8	9	10
Fiscal year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Revenue growth			20%	20%	15%	15%	15%	15%	15%	15%
COGS/Revenues		50%	50%	50%	50%	50%	50%	50%	50%	50%
Operating costs/Revenues		25%	25%	25%	25%	25%	25%	25%	25%	25%
Current Assets/Revenues		30%	30%	30%	30%	30%	30%	30%	30%	30%
Current liabilities/Revenues		15%	15%	15%	15%	15%	15%	15%	15%	15%
Depreciation as % yr end assets		10%	10%	10%	10%	10%	10%	10%	10%	10%
Borrowing costs		12%	12%	12%	12%	12%	12%	12%	12%	12%
Tax rate on net profit		35%	35%	35%	35%	35%	35%	35%	35%	35%
Impact of tax holiday		0%	0%	0%	0%	0%	0%	0%	0%	0%
Investment incentives (taxable)		£500								
Additions to Fixed assets	£5,000	£5,000	£1,000	£1,000	£1,500	£1,500	£1,500	£1,500	£1,500	£1,500
Equity injection	£5,000									
New LT Debt	£5,000									
Repayments of LT Debt										

Profit & Loss (£000s)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Revenues		£8,000	£9,600	£11,520	£13,248	£15,235	£17,520	£20,149	£23,171	£26,646
Investment incentives		£500	£0	£0	£0	£0	£0	£0	£0	£0
Cost of goods sold		-£4,000	-£4,800	-£5,760	-£6,624	-£7,618	-£8,760	-£10,074	-£11,585	-£13,323
Depreciation		-£500	-£950	-£955	-£960	-£1,014	-£1,062	-£1,106	-£1,145	-£1,181
Gross profit		£4,000	£3,850	£4,805	£5,665	£6,604	£7,698	£8,968	£10,440	£12,142
Operating costs		-£2,000	-£2,400	-£2,880	-£3,312	-£3,809	-£4,380	-£5,037	-£5,793	-£6,662
Operating profit		£2,000	£1,450	£1,925	£2,353	£2,795	£3,318	£3,931	£4,647	£5,481
Financing costs		-£600	-£600	-£600	-£600	-£600	-£600	-£600	-£600	-£600
Pre-tax profit		£1,400	£850	£1,325	£1,753	£2,195	£2,718	£3,331	£4,047	£4,881
Tax		-£490	-£298	-£464	-£613	-£768	-£951	-£1,166	-£1,417	-£1,708
Net profit		£910	£553	£861	£1,139	£1,427	£1,767	£2,165	£2,631	£3,173
Dividends				-£500	-£500	-£500	-£1,000	-£1,500	-£2,000	-£2,000
Net addition to shareholders' funds		£910	£553	£361	£639	£927	£767	£665	£631	£1,173



