FOREIGN PROJECT APPRAISAL: THE CASE OF INTERNATIONAL DIESEL CORPORATION

Jari Huikku (Adapted from Shapiro 2005; Version 1.3.2024)

Introduction

This section illustrates how to deal with some of the complexities involved in foreign project analysis by considering the case of a U.S. firm with an investment opportunity in England. International Diesel Corporation (IDC-U.S.), a U.S. based multinational firm, is trying to decide whether to establish a diesel manufacturing plant in the United Kingdom (IDC-U.K.). IDC-U.S. expects to significantly boost its European sales of small diesel engines (40-160 horsepower) from the 20 000 it is currently exporting there. At the moment, IDC-U.S. is unable to increase exports because its domestic plants are producing to capacity. The 20 000 diesel engines it is currently shipping to Europe are the residual output that it is not selling domestically.

IDC-U.S. has made a strategic decision to significantly increase its presence and sales overseas. A logical first target of this international expansion is the European Union (EU). Market growth seems assured by recent increases in fuel costs. IDC-U.S. executives believe that manufacturing in England will give the firm a key advantage with customers in England and throughout the EU.

England is the most likely production location because IDC-U.S. can acquire a 1.4 million square-foot plant in Manchester from British Leyland (BL), which used it to assemble gasoline engines before its recent closing. As an inducement to locate in this vacant plant and thereby ease unemployment among autoworkers in Manchester, the National Enterprise Board (NEB) will provide a five-year loan of £5 million ($10 million) at 3% interest, with interest paid annually at the end of each year and the principal to be repaid in a lump sum at the end of the fifth year. Total acquisition, equipment, and retooling costs for this plant are estimated to equal $50 million.

Full-scale production can begin six months from the date of acquisition because IDC-U.S. is reasonably certain it can hire BL's plant manager and about 100 other former employees. In addition, conversion of the plant from producing gasoline engines to producing diesel engines should be relatively simple.

The parent will charge IDC-U.K. licensing and overhead allocation fees equal to 7% of sales in pounds sterling. In addition, IDC-U.S. will sell its English affiliate valves, piston rings, and other components that account for approximately 30% of the total amount of materials used in the manufacturing process. IDC-U.K. will be billed in dollars at the current market price for this material. The remainder will be purchased locally. IDC-U.S. estimates that its all-equity nominal required rate of return for the project will equal 12%, based on an anticipated 3% U.S. rate of inflation and the business risk associated with this venture. The debt capacity of such a project is judged to be about 20% - that is, a debt-to-equity ratio for this project of about 1:4 is considered reasonable.

To simplify its investment analysis, IDC-U.S. uses a five-year capital-budgeting horizon and then calculates a terminal value for the remaining life of the project. If the project has a positive net present value for the first five years, there is no need to engage in costly and uncertain estimates of future cash flows. If the initial net present value is negative, then IDC-U.S. can calculate a break-even terminal value at which the net present value will just be positive. This break-even

value is then used as a benchmark against which to measure projected cash flows beyond the first five years.

We now apply the three-stage investment analysis:

1. Estimate project cash flows
2. Forecast the amounts and timing of cash flows to the parent
3. Add to, or subtract from, these parent cash flows the indirect benefits or costs that this project provides the remainder of the multinational firm

Estimation of project cash flows

A principal cash outflow associated with the project is the initial investment outlay, consisting of the plant purchase, equipment expenditures, and working-capital requirements. Other cash outflows include operating expenses, later additions to working capital as sales expand, and taxes paid on its net income.

IDC-U.K. has cash inflows from its sales in England and other EU countries. It also has cash inflows from three other sources:

- The tax shield provided by depreciation and interest charges
- Interest subsidies
- The terminal value of its investment, net of any capital gains taxes owed upon liquidation.

Recapture of working capital is not assumed until eventual liquidation because this working capital is necessary to maintain an ongoing operation after the fifth year.

Initial Investment Outlay. Total plant acquisition, conversion, and equipment costs for IDC-U.K. were previously estimated at $50 million. The plant and equipment will be depreciated on a straight-line basis over a five-year period, with a zero salvage value.

Of the $50 million in net plant and equipment costs, $10 million will be financed by NEB's loan of £5million at 3%. The remaining $40 million will be supplied by the parent in the form of equity capital.

Working-capital requirements – comprising cash, accounts receivable, and inventory – are estimated at 30% of sales, but this amount will be partially offset by accounts payable to local firms, which are expected to average 10% of sales. Therefore, net investment in working capital will equal approximately 20% of sales. The transfer price on the material sold to IDC-U.K. by its parent includes a 25% contribution to IDC-U.S.'s profit and overhead. That is, the variable cost of production equals 75% of the transfer price. Lloyds Bank is providing an initial working-capital loan of £1.5 million ($3 million). All future working-capital needs will be financed out of internal cash flow. Exhibit 3C.1 summarizes the initial investment.

EXHIBIT 3C.1 Initial Investment Outlay in IDC-U.K. (£1 = $2)

	£ (millions)	$ (millions)
Plant purchase and retooling expense	17,5	35,0
Equipment		
Supplied by parent (used)	2,5	5,0
Purchased in the U.K.	5,0	10,0
Working capital		
Bank financing	1,5	3,0
Total initial investment	£ 26.5	$ 53,0

Financing IDC-U.K. On the basis of the information just provided, IDC-U.K.'s initial balance sheet, in both pounds and dollars, is presented in Exhibit 3C.2. The debt ratio (debt to total assets) for IDC-U.K. is 33:53, or 62%.

The tax shield benefits of interest write-offs are represented separately. Assume that IDC-U.K. contributes $10.6 million to its parent's debt capacity (0,2 x $53 million), the dollar market rate of interest for IDC-U.K. is 8%, and the U.K. tax rate is 40%. This calculation translates into a cash flow in the first and subsequent years equal to 10 600 000$ x 0,08 x 0,40, or $339 000. Discounted at 8%, this cash flow provides a benefit equal to $1 400 000 over the next five years.

EXHIBIT 3C.2 Initial Balance Sheet of IDC-U.K. (1£ = 2$)

	£ (millions)	$ (millions)
Assets		
Current assets	1,5	3,0
Plant and equipment	25,0	50,0
Total assets	26,5	53,0
Liabilities		
Loan payable (to Lloyds)	1,5	3,0
Total current liabilities	1,5	3,0
Loan payable (to NEB)	5,0	10,0
Loan payable (to IDC-U.S.)	10,0	20,0
Total liabilities	16,5	33,0
Equity	10,0	20,0
Total liabilities plus equity	£26,5	$53,0

Interest Subsidies. On the basis of a 5% anticipated rate of inflation in England and on an expected annual 2% depreciation of the pound relative to the dollar, the market rate on the pound loan to IDC-U.K. would equal about 10%. Thus, the 3% interest rate on the loan by the National Enterprise Board represents a 7% subsidy to IDC-U.K. The cash value of this subsidy equals

£350 000 (£5 000 000 x 0,07, or approximately $700 000) annually for the next five years, with a present value of $2.7 million.[1]

Sales and Revenue Forecasts. At a profit-maximizing price of £250 per unit in the first year ($490 at the projected year 1 exchange rate), demand for diesel engines in England and other EU countries is expected to increase by 10% annually, from 60 000 units in the first year to 88 000 units in the fifth year. It is assumed here that purchasing power parity holds with no lag and that real prices remain constant in both absolute and relative terms. Hence, the sequences of nominal pound prices and exchange rates, reflecting anticipated annual rates of inflation equaling 5% and 3% for the pound and dollar, respectively, are:

It is also assumed here that purchasing power parity holds with respect to the euro and other currencies of the various EU countries to which IDC-U.K. exports. These exports account for about 60% of total IDC-U.K. sales. Disequilibrium conditions in the currency markets or relative price changes can be dealt with by explicitly developing scenarios of exchange rate and price changes.

In the first year, although demand is at 60 000 units, IDC-U.K. can produce and supply the market with only 30 000 units (because of the six-month start-up period). IDC-U.S. exports another 20 000 units to its English affiliate at a unit transfer price of £250, leading to no profit for IDC-U.K. Because these units would have been exported anyway, IDC-U.K. is not credited from a capital-budgeting standpoint with any profits on these sales. IDC-U.S. ceases its export of finished products to England and the EU after the first year. From year 2 on, IDC-U.S. is counting on an expanding U.S. market to absorb the 20 000 units. Based on these assumptions, IDC-U.K's projected sales revenues are shown in Exhibit 3C.3, line C.

In nominal terms, IDC-U.K.'s pound sales revenues are projected to rise at a rate of 15,5% annually, based on a combination of the 10% annual increase in unit demand and the 5% annual

Year	Price (£)	Exchange rate ($)
0	-	2,00
1	250	1,96
2	278	1,92
3	308	1,89
4	342	1,85
5	380	1,82

[1] The present value of this subsidy is found by discounting it at 10% and then converting the resulting pound present value into dollars at the current spot rate of $2/pound. The appropriate discount rate is 10% because this is a pound loan. The exact present value of this subsidy is given by the difference between the present value of debt service on the 3% loan discounted at 10% and the face value of the loan.

EXHIBIT 3C.3 Present Value of IDC-U.K.: Project Viewpoint

	Year						
	0	1	2	3	4	5	5+
A. Sales (units)		30 000	66 000	73 000	80 000	88 000	
B. Price per unit (£)		250	263	276	289	304	
C. Sales revenue (£ millions)		7,5	17,3	20,1	23,2	26,7	
D. Variable cost per unit (£)		140	147	154	162	170	
E. Total variable cost (£ millions)		4,2	9,7	11,3	13,0	15,0	
F. Licensing fees and royalties (0,07 x line C, in £ millions)		0,5	1,2	1,4	1,6	1,9	
G. Overhead expenses (£ millions) *		0,6	1,2	1,3	1,4	1,5	
H. Depreciation (£ millions)		5,0	5,0	5,0	5,0	5,0	
I. Total expenses (E + F + G + H, in £ millions)		10,3	17,1	19,0	21,0	23,3	
J. Profit before tax (C - I, in £ millions)		-2,8	0,2	1,2	2,2	3,4	
K. U.K. corporate income taxes @ 40% = 0,40 x J**)		0,0	0,0	0,0	0,3	1,3	
L. Net profit after tax (J - K, in £ millions)		-2,8	0,2	1,2	1,9	2,0	
M. Terminal value for IDC-U.K. (2,7 x (L+H), for year 5, in £ millions)							19,0
N. Initial investment, including working capital (£ millions)	-26,5						
O. Working capital investment at 20% of revenue (0,2 x C, in £ millions)		1,5	3,5	4,0	4,6	5,3	
P. Required addition to working capital (line O for year t - line O for year t - 1; t = 2,…,5, in £ millions)	0,0	1,5	1,9	0,6	0,6	0,7	
Q. IDC-U.K. net cash flow (L + H + M + N - P, in £ millions)	-26,5	***2,2	3,3	5,6	6,3	6,3	19,0
R. £ exhange rate ($)	2,00	1,96	1,92	1,89	1,85	1,82	1,82
S. IDC-U.K. cash flow (Q x R, in $ millions)	-53,0	4,3	6,3	10,6	11,6	11,5	34,5
T. Present value factor at 12%	1,0	0,8929	0,7972	0,7118	0,6355	0,5674	0,5674
U. Present value (S x T, in $ millions)	-53,0	3,8	5,0	7,5	7,4	6,5	19,6
V. Cumulative present value ($ millions)	-53,0	-49,2	-44,2	-36,7	-29,3	-22,8	-3,2

* First year represents overhead for less than one full year.
**Loss carryforward from year 1 of £2,8 eliminates tax for years 2 and 3 and reduces tax for year 4.
*** This should be 0,7 (typo in Shapiro). We use this, however, to be consistent with the later tables.

increase in unit price (1,10 x 1,05 = 1,155). Dollar revenues will increase at about 13% annually, due to the anticipated 2% annual rate of pound depreciation.

Production Cost Estimates. On the basis of the assumptions that relative prices will remain constant, and that purchasing power parity will hold continually, variable costs of production, stated in real terms, are expected to remain constant, whether denominated in pounds or in dollars.

Hence, the pound prices of both labor and material sourced in England and components imported from the Unites States are assumed to increase by the rate of British inflation, or 5% annually. Unit variable costs in the first year are expected to equal £140, including £30 ($60) in components purchased from IDC-U.S.

In addition, the license fees and overhead allocations, which are set at 7% of sales, will rise at an annual rate of 15,5% because pound revenues are rising at that rate. With a full year of operation, initial overhead expenses would be expected to equal £1 100 000. Actual overhead expenses incurred, however, are only £600 000 because the plant does not begin operation until midyear. These expenses are partially fixed, so their rate of increase should be about 8% annually.

The plant and equipment, valued at £25 million, can be written off over five years, yielding an annual depreciation charge against income of £5 million. The cash flow associated with this tax shield remains constant in nominal pound terms but declines in nominal dollar value by 2% annually. With a 3% rate of U.S. inflation, its real value is, therefore, reduced by 5% annually, the same as its loss in real pound terms.

Annual production costs for IDC-U.K. are estimated in Exhibit 3C.3, lines D-I. It should be realized, of course, that some of these expenses, like depreciation, are a non-cash charge or, like licensing fees, a benefit to the overall corporation. Total production costs rise less rapidly each year than the 15,5% annual increase in nominal revenue. This situation is due both to the fixed depreciation charge and to the semifixed nature of overhead expenses. Thus, the profit margin should increase over time.

Projected Net Income. Net income for years 1 through 5 is estimated on line L of Exhibit 3C.3. The effective tax rate on corporate income faced by IDC-U.K. in England is estimated to be 40%. The £2.8 million loss in the first year is applied against income in years 2, 3, and 4, reducing corporate taxes owed in those years.

Additions to Working Capital. One of the major outlays for any new project is the investment in working capital. IDC-U.K. begins with an initial investment in working capital of £1.5 million ($3.0 million). Working-capital requirements are projected at a constant 20% of sales. Thus, the necessary investment in working capital will increase by 15,5% annually, the rate of increase in pound sales revenue. These calculations are shown on lines O and P of Exhibit 3C.3.

Terminal Value. Calculating a terminal value is a complex undertaking, given the various possible ways to treat this issue. Three different approaches are pointed out. One approach is to assume that the investment will be liquidated after the end of the planning horizon and to use this value. However, this approach just takes the question one step further: What would a prospective buyer be willing to pay for this project? The second approach is to estimate the market value of the project, assuming that it is the present value of remaining cash flows. Again, however, the value of the project to an outside buyer may differ from its value to the parent firm, owing to parent profits on sales to its affiliate, for instance. The third approach is to calculate a break-even terminal value at which the project is just acceptable to the parent and then use that as a benchmark against which to judge the likelihood of the present value of future cash flows exceeding that value.

Most firms try to be quite conservative in estimating terminal values. IDC-U.K. calculates a terminal value on the basis of the assumption that the market value of the project will be 2,7 times the net cash flow in year 5 (net income plus depreciation), or £19.0 million.

Estimated Project Present Value. We are now ready to estimate the net present value of IDC-U.K. from the viewpoint of the project. As shown in Exhibit 3C.3, line V, the NPV of project cash flows equals -$3,2 million. Adding to this amount the $2.7 million value of interest subsidies and the $1.4 million present value of the tax shield on interest payments yields an overall positive project net present value of $0.9 million. The estimated value of the interest tax shield would be correspondingly greater if this analysis were to incorporate benefits derived over the full 10-year assumed life of the project, rather than including benefits from the first five years only. Over 10 years, the present value of the tax shield would equal $2.3 million, bringing the overall project net present value to $1.8 million. The latter approach is the conceptually correct one.

Despite the favorable net present value for IDC-U.K., it is unlikely that a firm would undertake an investment that had a positive value only because of interest subsidies or the interest tax shield provided by the debt capacity of the project. However, this is exactly what most firms do if they accept a marginal project, using a weighted cost of capital. On the basis of the debt capacity of the project and its subsidized financing, IDC-U.K. would have a weighted cost of capital of approximately 10%. At this discount rate, IDC-U.K. would be marginally profitable.

It would be misleading, however, to conclude the analysis at this point without recognizing and accounting for differences between project and parent cash flows and their impact on the worth of investing in IDC-U.K. Ultimately, shareholders in IDC-U.S. will benefit from this investment only to the extent that it generates cash flows that are, or can be, transferred out of England. The value of this investment is now calculated from the viewpoint of IDC-U.S.

Estimation of Parent Cash Flows. From the parent's perspective, additional cash outflows are recorded for any taxes paid to England or the United States on remitted funds. IDC-U.S. has additional cash inflows as well. It receives licensing and overhead allocation fees each year for which it incurs no additional expenses. If it did, the expenses would have to be charged against the fees. IDC-U.S. also profits from exports to its English affiliate.

Loan Payments. IDC-U.K. will first make all necessary loan repayments before paying dividends. Specifically, IDC-U.K. will repay the £1.5 million working-capital loan from Lloyds at the end of year 2 and NEB's loan of £5.0 million loan at the end of the fifth year. Their dollar repayment costs are estimated at $2.9 million and $9.3 million, respectively, based on the forecasted exchange rates. These latter two loan repayments are counted as parent cash inflows because they reduce the parent's outstanding consolidated debt burden and increase the value of its equity by an equivalent amount. Assuming that the parent would repay these loans regardless, having IDC-U.K. borrow and repay funds is equivalent to IDC-U.S. borrowing the money, investing it in IDC-U.K., and then using IDC-U.K.'s higher cash flows (because it no longer has British loans to service) to repay IDC-U.S.'s debts.

Remittances to IDC-U.S. IDC-U.K. is projected to pay dividends equal to 100% of its remaining net cash flows after making all necessary loan repayments. It also pays licensing and overhead allocation fees equal, in total, to 7% of gross sales. On both of these forms of transfer, the English government will collect 10% withholding tax. These remittances are shown in Exhibit 3C.4. IDC-U.S., however, will not owe any further tax to the IRS because the company is assumed to have excess foreign tax credits. Otherwise, IDC-U.S. would have to pay U.S. corporate income and withholding taxes already paid. In this case, IDC-U.K. losses in the first year, combined with the higher British corporate tax rate, will assure that IDC-U.S. would owe minimal taxes to the IRS even if it did not have any excess foreign tax credits. Otherwise, IDC-U.S. would have to pay U.S. corporate income taxes on dividends and fees it receives, less any credits for foreign income and withholding taxes already paid. In this case, IDC-U.K. losses in the first year, combined with the higher British corporate tax rate, will assure that IDC-U.S. would owe minimal taxes to the IRS even if it did not have any excess foreign tax credits.

EXHIBIT 3C.4 Dividends and Fees and Royalties Received by IDC-U.S. (U.S. $ Millions)

	Year					
	1	2	3	4	5	5+
A. Net cash flow to IDC-U.K., (from Exhibit 3C.3, line S)	4,3	6,3	10,6	11,6	11,5	34,5
B. Loan repayments by IDC-U.K.		2,9			9,3	
C. Dividend paid to IDC-U.S. (A-B)	4,3	3,3	10,6	11,6	2,2	34,5
D. Fees and royalties (Exhibit 3C.3, line F x line G)	1,0	2,3	2,7	3,0	3,4	*15,5
E. Withholding tax paid to U.K. @10% = 0,10 x (C + D)	0,5	0,6	1,3	1,5	0,6	5,0
F. Net income received by IDC-U.S. (C + D - E, in $ millions)	$4,8	$5,1	$11,9	$13,1	$5,1	$45,0
G. Exchange rate	$1,96	$1,92	$1,89	$1,85	$1,82	$1,82

* Estimated present value of future fees and royalties. These were not incorporated in the terminal value figure of $25 million.

Earnings on Exports to IDC-U.K. With a 25% margin on its exports, and assuming it has sufficient spare-parts manufacturing capacity, IDC-U.S. has incremental earnings on sales to IDC-U.K. equaling 25% of the value of these shipments. After U.S. corporate tax 35%, IDC-U.S. generates cash flows valued at 16,5% (25 x 65%) of its exports to IDC-U.K. These cash flows are presented in Exhibit 3C.5.

EXHIBIT 3C.5 Net Cash Flows from Exports to IDC-U.K.

	Year					
	1	2	3	4	5	5+
A. Sales (units)	30 000	66 000	73 000	80 000	88 000	88 000
B. Components purchased from IDC-U.S.						
1. Unit price ($)	60,0	61,8	63,7	65,6	67,5	67,5
2. Total export revenue (A x B1 in $ millions)	1,8	4,1	4,6	5,2	5,9	5,9
C. After-tax cash flow (0,165 x B2 in $ millions)	$0,3	$0,7	$0,8	$0,9	$1,0	$1,0

Estimated Present Value of Project to IDC-U.S. In Exhibit 3C.6, all the various cash flows are added up, net of tax and interest subsidies on debt, and their present value is calculated at $13 million. Adding the $5 million in debt-related subsidies ($2.4 million for the interest tax shield and $2.6 million for the NEB loan subsidy), brings this value up to $18.0 million. It is apparent that, despite the additional taxes that must be paid to England and the United States, IDC-U.K. is more valuable to its parent than it would be to another owner on a stand-alone basis. This situation is due primarily to the various licensing and overhead allocation fees received and the incremental earnings on exports to IDC-U.K.

EXHIBIT 3C.6 Present Value of IDC-U.K.: Parent Viewpoint (U.S. $ Millions)

	Year						
	0	1	2	3	4	5	5+
A. Cash inflows							
1. Loan repayment by IDC-U.K. (from Exhibit 3C.4, line B)			2,9			9,3	
2. Dividends paid to IDC-U.S. (from Exhibit 3C.4, line C)		4,3	3,3	10,6	11,6	2,2	34,5
3. Fees and royalties paid to IDC-U.S. (from Exhibit 3C.4, line D)		1,0	2,3	2,7	3,0	3,4	15,5
4. Net cash flows from exports (from Exhibit 3C.5, line C)		0,3	0,7	0,8	0,9	1,0	*4,1
B. Cash outflows							
1. Plant and equipment	50						
2. Working capital	3						
3. Withholding tax paid to the U.K. (from Exhibit 3C.4, line E)		0,5	0,6	1,3	1,5	0,6	5,0
4. Total cash outflows	53	0,5	0,6	1,3	1,5	0,6	5,0
C. Net cash flow (A5 - B4)	-53	5,1	8,7	12,7	14,0	15,3	49,1
D. Present-value factor at 12%	1,0	0,8929	0,7972	0,7118	0,6355	0,5674	0,5674
E. Present value (C x D)	-53	4,5	6,9	9,0	8,9	8,7	27,9
F. Cumulative present value ($ millions)	$-53,0	$-48,5	$-41,5	$-32,5	$-23,6	$-14,9	$13,0

*Estimated present value of future earnings on export sales to IDC-U.K.

Lost Sales. There is a circumstance, however, that can reverse this conclusion. This discussion has assumed that IDC-U.S. is now producing at capacity and that the 20 000 diesel engines currently being exported to the EU can be sold in the United States, starting in year 2. Should this assumption not be the case (that is, should 20 000 units of IDC-U.K. sales just replace 20 000 units of IDC-U.S. sales), then the project would have to be charged with the incremental cash flow that IDC-U.S. would have earned on these lost exports. We now see how to incorporate this effect in a capital-budgeting analysis.

Suppose the incremental after-tax cash flow per unit to IDC-U.S. on its exports to the EU equals $180 at present and that this contribution is expected to maintain its value in current dollar terms over time. Then, in nominal dollar terms, this margin grows by 3% annually. If we assume lost sales of 20 000 units per year, beginning in year 2 and extending through year 10, and a discount rate of 12%, the present value associated with these lost sales equals $19.5. The calculations are presented in Exhibit 3C.7. Subtracting the present value of lost sales from the previously calculated present value of $18 million yields a net present value of IDC-U.K. to its parent equal to -$1.5 million (-6.5 million ignoring the interest tax shield and subsidy).

This example points up the importance of looking at incremental cash flows generated by a foreign project rather than total cash flows. An investment that would be marginally profitable on its own, and quite profitable when integrated with parent activities, becomes unprofitable when taking into account earnings on lost sales.

EXHIBIT 3C.7 Value of Lost Export Sales

	Year								
	2	3	4	5	6	7	8	9	10
A. Lost unit sales	20 000	20 000	20 000	20 000	20 000	20 000	20 000	20 000	20 000
B. Cash flow per unit*	185,4	191,0	196,7	202,6	208,7	214,9	221,4	228,0	234,9
C. Total cash flow from exports (A x B)	3,7	3,8	3,9	4,1	4,2	4,3	4,4	4,6	4,7
D. Present value factor at 12%	0,7972	0,7118	0,6355	0,5674	0,5066	0,4523	0,4039	0,3606	0,322
E. Present value (C x D)	3,0	2,7	2,5	2,5	2,1	1,9	1,8	1,6	1,5
F. Cumulative present value ($)	3,0	5,7	8,2	10,6	12,6	14,5	16,3	18,0	19,5

*The figures in this row grow by 3% each year. So, 185,4 = 180 x 1,03, and so on.