

**Jaguar Valuation Base Case**

	Project					
	1984	1985	1986	1987	1988	1989
<b>1 Dollar / Sterling</b>	<b>1.350</b>	<b>1.323</b>	<b>1.297</b>	<b>1.271</b>	<b>1.245</b>	<b>1.220</b>
	1.350	1.324	1.298	1.273	1.248	1.224
United States						
2 U.S. growth, units(%)	12.40	6.0	4.0	2.0	2.0	2.0
3 U.S. volume, units	17,154	18,183	18,911	19,289	19,675	20,068
4 U.S. inflation (%)		3.0	3.0	3.0	3.0	3.0
5 US\$ price/unit	25.631	26.400	27.192	28.008	28.848	29.713
6 U.S. sales, dollars	439,674	480,036	514,215	540,234	567,570	596,289
<b>7 U.S. sales, sterling</b>	<b>325,685</b>	<b>362,839</b>	<b>396,605</b>	<b>425,177</b>	<b>455,807</b>	<b>488,644</b>
	325,685	362,839	396,605	425,177	455,807	488,644
Rest of World (ROW)						
8 Growth, units (%)	12.40	4.0	2.0	2.0	2.0	2.0
9 Volume, units	14,846	15,440	15,749	16,064	16,385	16,713
# Inflation, sterling (%)		5.0	5.0	5.0	5.0	5.0
# Price/unit, sterling	17.284	18.148	19.056	20.008	21.009	22.059
# R.O.W. sales, sterling	256,598	280,205	300,100	321,407	344,227	368,667
# Var. mfg. Cost/unit	13.521	14.197	14.907	15.652	16.435	17.257
# Net working capital	30,000	33,131	35,895	38,465	41,219	44,170
# Discount rate, sterling	0.18	0.18	0.18	0.18	0.18	0.18
# Total revenues	582,283	643,045	696,705	746,584	800,034	857,311
# Var. cost of sales	432,672	477,349	516,661	553,344	592,632	634,709
# Depreciation	10,000	12,000	14,000	16,000	18,000	20,000
# R&D	18,000	18,900	19,845	20,837	21,879	22,973
# Distribution	13,965	14,663	15,396	16,166	16,975	17,823
# Administration	23,100	24,255	25,468	26,741	28,078	29,482
# Total costs	497,737	547,167	591,371	633,089	677,564	724,987
# EBIT	84,546	95,878	105,335	113,495	122,471	132,324
# Tax	29,591	33,557	36,867	39,723	42,865	46,313
# EBIAT	54,955	62,321	68,468	73,772	79,606	86,011
# Depreciation	10,000	12,000	14,000	16,000	18,000	20,000
# Operating cash flow	64,955	74,321	82,468	89,772	97,606	106,011
# Increase in NWC	27,000	3,131	2,765	2,570	2,754	2,951
<b># Capital expenditures</b>	<b>11,500</b>	<b>13,800</b>	<b>16,100</b>	<b>18,400</b>	<b>20,700</b>	<b>23,000</b>
# Free cash flow	26,455	57,390	63,603	68,802	74,152	80,060
# Terminal Value						615,843
# PV. Free cash flow	26,455	48,636	45,679	41,875	38,247	304,185
# Sum, PV of FCF	505,076					

To determine the exposure risk of the Jaguar plc 1984 case, it may be useful to analyze the following scenarios in addition to the base case:

**Scenario 2:** 25% depreciation of US\$ vs. pound  
 No change in US\$ price  
 No change in US volume

**Scenario 3:** 25% depreciation of US\$ vs. pound  
 10% increase in price (US\$)  
 Lower volume

**Scenario 4:** 10% appreciation of US\$ vs. pound  
No change in price  
No change in volume

*Note that these are not the only possible scenarios. In real life, many other cases must be analyzed in terms of exposure management (including changes in inflation rates and variable costs)*

**Assumptions:**

US\$1.35/pound (given), declining at 2% per year (PPP)

12.4% increase over US unit sales in 1983, decaying to 6%, then 4%, then 2%. Constant at 2% thereafter

3% per year constant

1984: ['83 revenue x 0.54 from US x '83 avg. US\$/pound rate] x 1.03. Growth thereafter per line 4

12.4% increase over ROW unit sales in 1983, decaying to 4%, then 2%. Constant at 2% thereafter

5% per year constant

1984: [('83 revenue x 0.46 from ROW) / (ROW unit sales)] x 1.05. Growth thereafter per line 10

1984: [('83 COGS - '83 deprec.) / '83 prod. volume] x 1.05. Growth thereafter per line 10

1984: Arbitrary. Growth thereafter with total revenues (lines 7 and 12)

18% constant

Arbitrary

1984: Arbitrary. Growth thereafter per line 10

Growth per line 10

Growth per line 10

35% constant

Effectively arbitrary, but running about 15% (3 years) ahead of line 18

Growing Perpetuity, k=18%, g=5%

PV of lines 30 and 31, at 18%

case: