Project 2: Financial Strategy

Student Name

Name of Institution

Project 2: Financial Strategy

**Question A1**

|  |  |
| --- | --- |
|  | Values in NOK |
| **Revenue:** |  |
| Gearbox sales | 470,400,000.00 |
| Propeller sales | 470,400,000.00 |
| Total revenue | 940,800,000.00 |
| **Cost of sales:** |  |
| Gearbox manufacturing cost | 228,000,000.00 |
| Propeller manufacturing cost | 168,000,000.00 |
| Total cost of sales | 396,000,000.00 |
| Gross margin | 544,800,000.00 |
| **Administrative expenses:** |  |
| Labor costs | 300,000,000.00 |
| Administrative costs | 70,000,000.00 |
| Depreciation expense | 80,000,000.00 |
| Total administrative expenses | 450,000,000.00 |
| Pre-tax profit | 94,800,000.00 |
| Tax expense | 20,856,000.00 |
| **After-tax profit** | **73,944,000.00** |
| **After-tax profit margin** | **7.86%** |

**Question A2**

The exchange rate that allows the company to break even on its propeller and gear box sales is equal to 8.9928 NOK/euro (table in the appendix). If the prevailing exchange rate exceeds this value, the company’s profits will be positive. According to the relative purchasing power parity theory, the exchange rate between two currencies adjusts to maintain the purchasing power when there is differential inflation in the two countries. The higher inflation in Norway increases the prices of Norwegian goods and reduces the purchasing power of Norwegians. In response to the domestic price increase, Norway’s imports of French goods will increase while its exports to France will decrease. Consequently, the increasing demand for euros and falling demand for Kroners will place downward pressure on the Kroner. As per the RPPP, the kroner is hypothesized to depreciate against the euro by 2.4%, which reflects the inflation differential between Norway and France. Using the current spot rate of 9.80NOK/euro, the exchange rate at time t+1 is expected to equal 10.0352NOK/kroner. Since the expected value of the exchange rate under RPPP exceeds the break-even exchange rate, I expect the company’s profits to be positive in year t+1.

**Question A3**

The profit margin at time t was calculated as the ratio of after-tax profit to total revenue (73,944,000/940,800,000) and was equal to 7.86%. To maintain this profit margin with the inflation differential, the spot rate at time t+1 should be equal to 10NOK/euro (table in the appendix). In the previous question, the expected spot rate at t+1 under RPPP was equal to 10.0352NOK/euro. Thus, the theoretical condition under which the profit margin remains constant is if the kroner depreciates by slightly less than 2.4%, which would require a smaller difference between the two counties’ inflation rates. The exchange rate is also influenced by differences in interest rates; therefore, if the inflation is as projected, an interest rate differential between the two countries could cause the kroner to depreciate further to 10.0352NOK/euro. If the French interest rate was higher than the Norwegian interest rate, the kroner would depreciate against the euro to equate Norwegians’ real return on French deposits to the returns they would earn on Norwegian deposits.

**Question A4**

The after-tax profit is $541,320 while the profit margin is 0.062% (table in the appendix). The profit margin is substantially lower than the profit margin of 7.86% at time t. This result is expected as the strengthening of the kroner means that the kroner is more expensive relative to the euro; thus, exporters receive fewer kroner for a euro. The revenue in kroner is much lower, which combined with the higher production and administrative costs from the high inflation in Norway results in much lower profits.

Appendix

Question A2

|  |  |
| --- | --- |
|  | Values in NOK |
| **Revenue:** |  |
| Gearbox sales | 436,405,000.00 |
| Propeller sales | 436,405,000.00 |
| Total revenue | 872,810,000.00 |
| **Cost of sales:** |  |
| Gearbox manufacturing cost | 235,980,000.00 |
| Propeller manufacturing cost | 173,880,000.00 |
| Total cost of sales | 409,860,000.00 |
| Gross margin | 462,950,000.00 |
| **Administrative expenses:** |  |
| Labor costs | 310,500,000.00 |
| Administrative costs | 72,450,000.00 |
| Depreciation expense | 80,000,000.00 |
| Total administrative expenses | 462,950,000.00 |
| Pre-tax profit | (0.00) |
| Tax expense | (0.00) |
| After-tax profit | (0.00) |

Question A3

|  |  |
| --- | --- |
|  | Values in NOK |
| **Revenue:** |  |
| Gearbox sales | 485,309,273.89 |
| Propeller sales | 485,309,273.89 |
| Total revenue | 970,618,547.79 |
| **Cost of sales:** |  |
| Gearbox manufacturing cost | 235,980,000.00 |
| Propeller manufacturing cost | 173,880,000.00 |
| Total cost of sales | 409,860,000.00 |
| Gross margin | 560,758,547.79 |
| **Administrative expenses:** |  |
| Labor costs | 310,500,000.00 |
| Administrative costs | 72,450,000.00 |
| Depreciation expense | 80,000,000.00 |
| Total administrative expenses | 462,950,000.00 |
| Pre-tax profit | 97,808,547.79 |
| Tax expense | 21,517,880.51 |
| After-tax profit | 76,290,667.27 |
| Profit margin | 7.8600% |

Question A4

|  |  |
| --- | --- |
|  | Values in NOK |
| **Revenue:** |  |
| Gearbox sales | 436,752,000.00 |
| Propeller sales | 436,752,000.00 |
| Total revenue | 873,504,000.00 |
| **Cost of sales:** |  |
| Gearbox manufacturing cost | 235,980,000.00 |
| Propeller manufacturing cost | 173,880,000.00 |
| Total cost of sales | 409,860,000.00 |
| Gross margin | 463,644,000.00 |
| **Administrative expenses:** |  |
| Labor costs | 310,500,000.00 |
| Administrative costs | 72,450,000.00 |
| Depreciation expense | 80,000,000.00 |
| Total administrative expenses | 462,950,000.00 |
| Pre-tax profit | 694,000.00 |
| Tax expense | 152,680.00 |
| After-tax profit | 541,320.00 |
| Profit margin | 0.0620% |