

WORKING NOTES:

Q1

EXPENSES

- The research and development expenses are assumed to be initial expenses incurred in the first year only i.e., 150 million
- The introductory costs are depreciated at a rate of 8% p.a. at the end of each year using straight line method
- The server costs will be initiated in the sixth year when the full capacity is reached and will increase as per inflation rate of 1.5% p.a.
- The general and administration expenses were allotted as 10% of the total general and administration expenses (that were increasing by 5% every year) and the increase was calculated separately at a rate of 10% each year
- The advertising expenses were calculated at 15% growth rate higher than they would have been otherwise
- The inventory and accounts payable were calculated as 10% and 6% of the total revenue respectively (participants of US and Russia along with international participants who have invested in ETH, BTC and USDC & international participants participating in Alternium)
- Thus, the total expenses are calculated for both cases i.e., With Alternium and without Alternium

INCOME

- The income is generated from the existing 3 coins ETH, BTC and USDC and the investors are bifurcated into two categories i.e., from US and Russia and international participants
- While the new pool Alternium is open to only international participants and is expected to attract 5 million participants in year 1. Growing at rate of 8% per year and multiplied by the price (in correspondence to price of older products) with inflation of 1.5% is used to calculate the income
- Owing to synergies created by Alternium the 30% side benefits are added along with accounts receivable
- Total revenue is calculated for both cases i.e., With Alternium and without Alternium
- Net Revenue is generated after deducting all expenses
- Basic arithmetic operators and sum function is used to calculate all the values

- Tax rate is assumed to be constant at 30% every year. The net revenue is taxed and hence we are able to get after tax incremental cash flows

Q2

- The cost of capital, discount rate is estimated at 11% and NPV for the firm is calculated for the ten-year period
- The NPV for the firm in case of Alternium project being executed is 76,608.32 and in case Alternium project is not executed is 72,811.43
- Using goal seek function the IRR is coming as 1300%
- Line chart is used to represent NPV profile

Q3

- The estimations are done over a period of 25 years
- The research and development expenses will only be incurred in year 1 and is assumed to be null for the forthcoming years
- The server facilities cost will keep on increasing as no. of customers is increasing and will accommodate inflation assumed to be at 1.5%
- The general and administration expenses are assumed to grow at rate of 2% owing to increase in participants in Alternium
- Advertising expenses continue to grow at 15% per annum
- Participants are expected to grow at a rate of 10% each year and income generated will be calculated according to inflation rate of 1.5%
- Cost savings to increase by 3%
- Incremental cashflows will increase by multiple of 1.101
- NPV is calculated at 15% and IRR is 123%
- NPV profile is represented using line chart