



# *PROJECT SUMMARY*

## *FINANCIAL MATHEMATICS & APPLICATIONS OF IT- BASICS OF EXCEL*

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*UNIVERSAL SWAP*

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INSTITUTE OF ACTUARIAL  
& QUANTITATIVE STUDIES

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# UNIVERSAL SWAP LTD.

## SUMMARY REPORT

Universal swap is the fourth largest cryptocurrency exchange overall by daily trading volume.

### What is a cryptocurrency exchange?

A cryptocurrency exchange, or a digital currency exchange (DCE), is a business that allows customers to trade cryptocurrencies or digital currencies for other assets, such as conventional fiat money or other digital currencies. Exchanges may accept credit card payments, wire transfers or other forms of payment in exchange for digital currencies or cryptocurrencies. A cryptocurrency exchange can be a market maker that typically takes the bid–ask spreads as a transaction commission for its service or, as a matching platform, simply charges fees.

Under this project we have to calculate, forecast, assume various types of cash flows on the basis of which we have to check the overall viability of the cryptocurrency exchange (UNIVERSAL SWAP).

Universal swap is launching new coin Alternium on its platform for which it is intending to create a new liquidity pool.

For calculations we are provided with various information such as –

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R & D Expenses, Introductory Costs, Market Potential and Share, Pricing and Unit cost, New Participants, Server facilities and Costs, G & A Expenses, Working capital, Equity and Debt, Tax rates, Macro Data & Cost of capital.

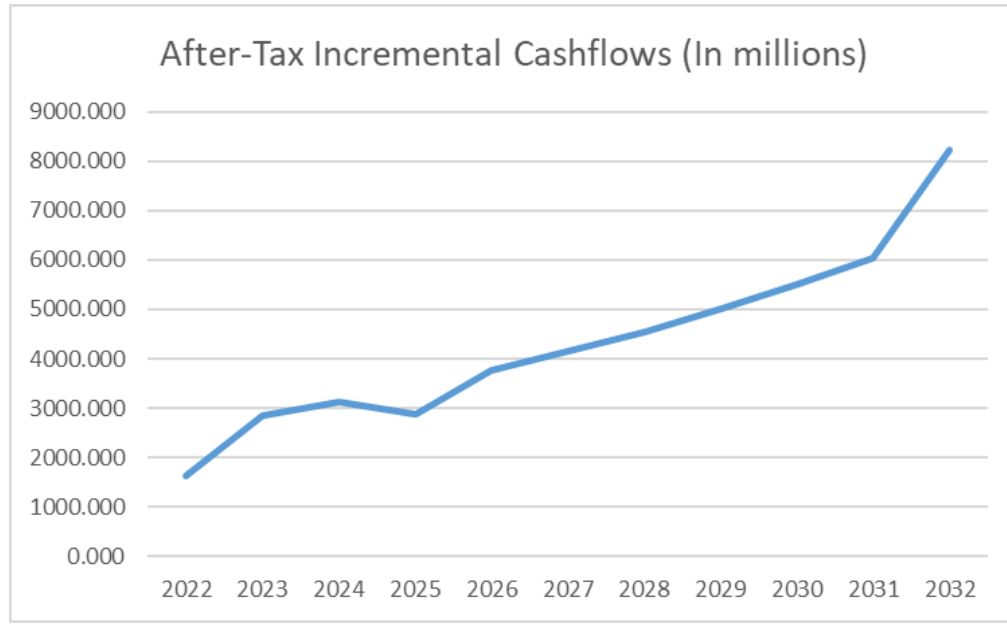
Q1

## AFTER-TAX INCREMENTAL CASHFLOWS

- Cash flow after taxes (CFAT) is a measure of financial performance that shows a company's ability to generate cash flow through its operations. It is calculated by adding back non-cash charges such as amortization, depreciation, restructuring costs, and impairment to net income.

In Sheet 2 you can find all the workings related expenses; revenues related to Question 1.

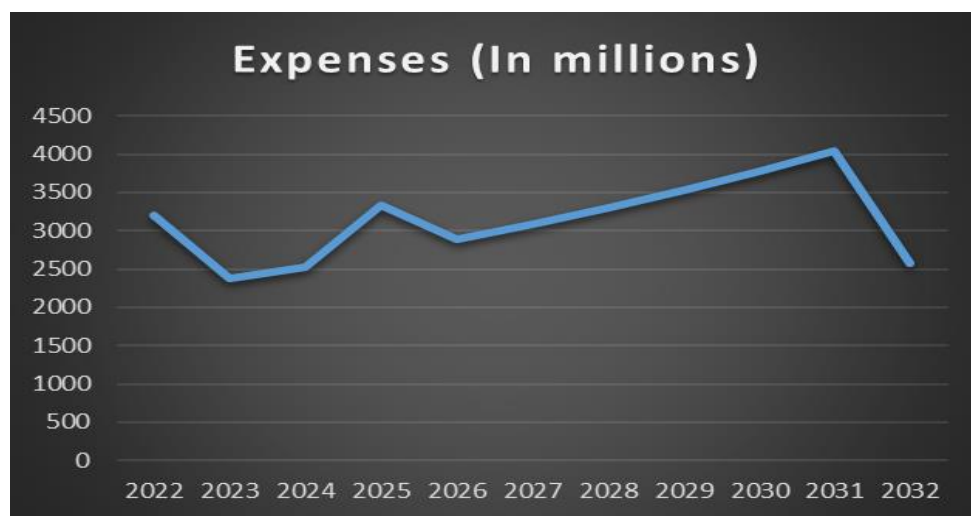
AFTER-TAX INCREMENTAL CASHFLOWS



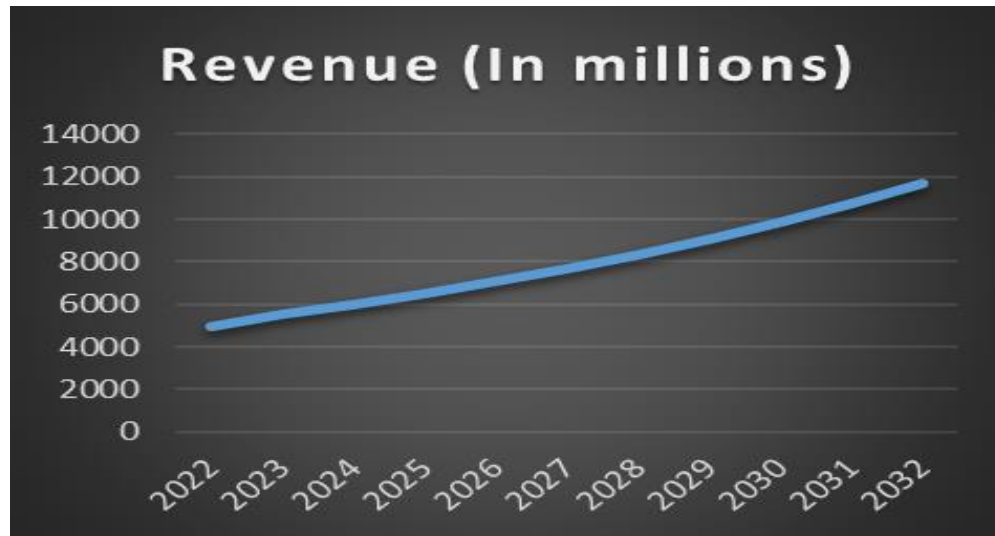
After watching the cashflows from 2022 to 2032 we can see that there is a continuous increase in after tax incremental cashflows because of increasing popularity of crypto-currency.

Universal swap exchange market capital rose to mind boggling \$22 billion dollars and increasing exponentially.

## ***TOTAL EXPENSES***



## ***TOTAL REVENUE***



When we see the above tables, we can see that revenue is increasing at an gradual pace and expenses in the last two years is decreasing which is result of more sustainable and effective employment of resources.

## ***Q.2***

### ***Q. WHAT IS NPV (NET PRESENT VALUE)?***

→ Net present value (NPV) is the difference between the present value of cash inflows and the present value of cash outflows over a period of time. NPV is used in capital budgeting and investment planning to analyze the profitability of a projected investment or project. NPV is the result of calculations used to find today's value of a future stream of payments.

Year	Time	After-Tax Incremental Cashflows (In millions)	Discounting factor	Present Value (In Millions)
2022	0	-3193.905	1	-3193.90464
2023	1	2837.908079	0.900900901	2556.673945
2024	2	3118.351423	0.811622433	2530.923969
2025	3	2861.957936	0.731191381	2092.638976
2026	4	3765.597976	0.658730974	2480.516023
2027	5	4138.451339	0.593451328	2455.969443
2028	6	4548.704353	0.534640836	2431.923098
2029	7	5000.255961	0.481658411	2408.41534
2030	8	5497.425968	0.433926496	2385.478789
2031	9	6045.001704	0.390924771	2363.14091
2032	10	11928.88718	0.352184479	4201.168914

## NPV OF THE PROJECT IS - \$ 22712.94477 (Millions)

Since the NPV of the project is so high it means that If NPV is positive, that means that the value of the revenues (cash inflows) is greater than the costs (cash outflows).

When revenues are greater than costs, the investor makes a profit.

## IRR

### Q. WHAT IS IRR (INTERNAL RATE OF RETURN)?

→ The Internal Rate of Return (IRR) is the discount rate that makes the net present value (NPV) of a project zero. In other words, it is the expected compound annual rate of return that will be earned on a project or investment.

IRR of the project is 96.628 %, We calculated it by putting NPV = 0, with the help of the Goal-Seek Function.



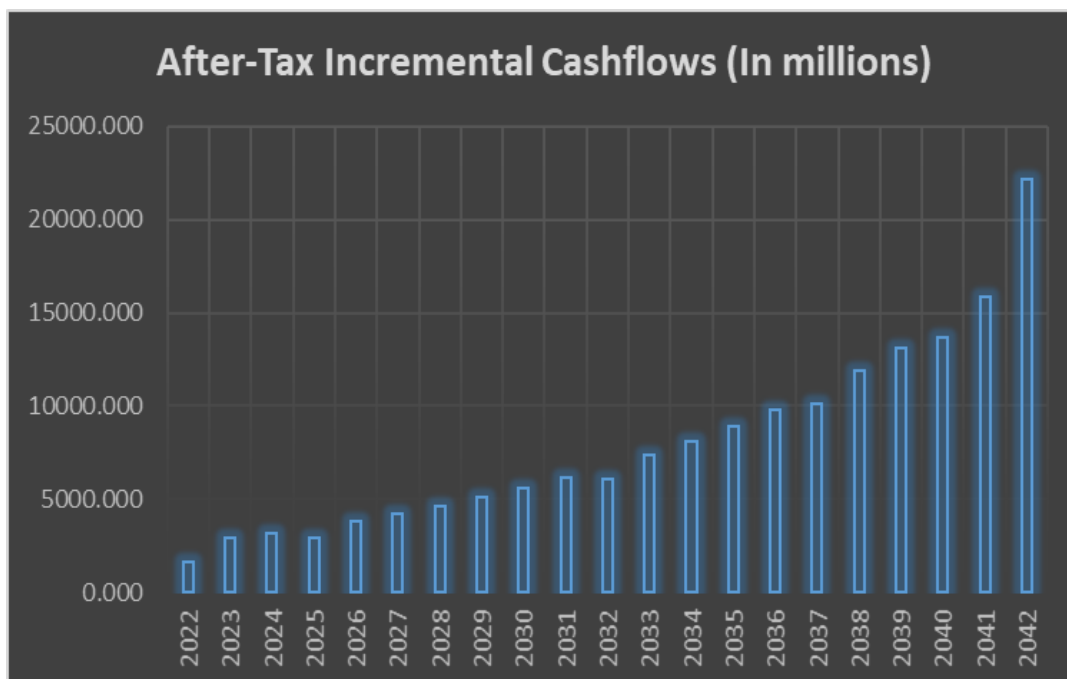
## Q.3

Since the Pool will reach its full capacity by the end of the 10<sup>th</sup> Year, we can let the project run for another 10 years as the project has proven to be very profitable. We can continue the project under the same conditions for all the parameters.

### ASSUMPTIONS-

1. PROJECT WILL BE IN ACTION FROM 2022-2042.
2. INFLATION-1.5%
3. REST ALL PARAMETERS WILL REMAIN SAME.

### AFTER TAX INCREMENTAL CASHFLOW'S



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WE CAN SEE THAT PROJECT IS GENERATING MASSIVE CASHFLOWS AS AN WHEN YEARS ARE PASSING ON, SO UNIVERSAL SWAP FUTURE IS FULL OF GROWTH

## *NPV AND IRR OF THE PROJECT*

NPV = \$45048.615 Millions

IRR = 98.753%

AS PROJECT IS FUTHER INCREASED BY 10 YEARS WE CAN SEE THAT THERE IS AN INCREASE OF 22310.31 MILLIONS IN NPV WHICH IS A GOOD INDICATOR AND IRR ALSO INCREASES. SO OVERALL UNIVERSAL SWAP IS HIGHLY PROSPEROUS COMPANY (LIQUIDITY POOL)