DCF Modelling Task- PayPal Holdings Inc.

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Company Overview

PayPal Holdings Inc., a subsidiary of EBay, is an American company, specializing in online payment system in majority of the countries that support online money transfers, and serve as a electronic alternative to traditional paper methods such as cheques and money order. Founded in December 1998 as Cofinity by Peter Thiel, Luke Nosek, Max Levchin, Yu Pan and Elon Musk, it went public in 2002. The company provides services like credit cards and payment methods all round the world. The company ranked 204th on the 2019 Fortune 500 of the largest United States corporations by revenue.

So what is DCF?

Let us explain this topic with a small example. Let's assume that today I give you the offer to take either $100 or $105 from me one year later. Which on would you choose. Obviously the $100. This is because today if you take $100 from me, you can either do compound interest or FD of that money, which would surely increase the value of $100 in one year to let's say $110 which is by all means greater than $105 which you would have gotten one year later.

So what we did here is analyze, in which case the returns were greater. In the same way we need to analyze if the return we expect from particular share can be reaped by it, if we buy in its current price. For this purpose we use the Discounted Cash Flow. Basically it shows us investors, what amount we need to invest today, in order to get a particular amount in the future. So we can quite easily see that it is the opposite of compounding, where we know what amount the amount we need to invest, and by simple calculation we calculate the amount we get in the future.

Why PayPal is appropriate for the DCF calculation?

The reason why, PayPal's DCF is so simple to calculate is because PayPal meets the following conditions-

- It does not pay any dividends.
- PayPal has a very consistent, powerful, and fast growing free Cash Flow which is in alignment with is in alignment with its profits.
- PayPal being a matured company has an allover positive free cash flow.

Below we have shown the DCF of PayPal-

Important Information And Considerations					
		2017	2018	2019	2020
Cash Flow from Operations		$ 25,31,000.00	$ 54,83,000.00	$ 45,61,000.00	$ 58,54,000.00
Capital Expenditure		$ 6,67,000.00	$ 8,23,000.00	$ 7,04,000.00	$ 8,66,000.00
Net Income		$ 17,95,000.00	$ 20,57,000.00	$ 24,59,000.00	$ 42,02,000.00
Revenues		$ 1,30,94,000.00	$ 1,54,51,000.00	$ 1,77,72,000.00	$ 2,14,54,000.00
WACC Rates	8.01%				
Shares Outstanding(latest value)	1175000				
Perpetual Growth Rate	2.20%				

- We first tried to calculate the free cash flows and the estimated revenues and incomes from which we calculated the projected free cash flow.
- From the information above we now calculate the DCF.

Free Cash Flow Calculations					*Projected Values*			
	2017	2018	2019	2020	2021	2022	2023	2024
Total Cash flow from Operating Activities	25,31,000	5,48,3000	45,61,000	58,54,000				
(Deduct) Capital Expenditure	(6,67,000)	(8,23,000)	(7,04,000)	(8,66,000)				
Free Cash Flow	18,64,000	46,60,000	38,57,000	49,88,000	37,17,496	45,58,162	54,24,212	64,54,813
Net Income	17,95,000	20,57,000	24,59,000	42,02,000	36,09,200	44,25,400	52,66,226	62,66,809
Free Cash Flow Rate*	103%	226%	156%	118%				
*Free Cash Flow Rate= (Free Cash Flow/ Net Income)*100								

- Now we use the above information to draft the DCF of PayPal

Income Statement Numbers					*Projected Values*			
Years	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**
Total Revenue	1,30,94,000	1,54,51,000	1,77,72,000	2,14,54,000	2,57,80,000	3,16,10,000	3,76,15,900	4,47,62,921
Revenue Growth Rate*		18%	15%	20%	20%	22%		
Net Income	17,95,000	20,57,000	24,59,000	42,02,000	36,09,200	44,25,400	52,66,226	6,2,66,809
Net Income Margin	13%	13%	13%	19%	14%	14%	14%	14%
Free Cash Flow*	18,64,000	46,60,000	38,57,000	49,88,000	37,17,496	45,58,162	54,24,212	64,54,813
* Free Cash Flow Rate	103%	103%	103%	103%	103%	103%	103%	103%
*Growth Rate = (Current Year- Previous Year/ Previous year values)*100								

Final Thoughts-

Discounted Free Cash Flow							
(In Thousands- Except P/L)			*Projected Values*				
	2019A	**2020A**	**2021**	**2022**	**2023**	**2024**	**Terminal Value**
Free Cash Flow	38,57,000	49,88,000	37,17,496	45,58,162	54,24,212	64,54,813	11,37,38,241
Discount Factor			1.08	1.166	1.259	1.36	1.36
PV of Future Cash Flow			34,42,126	39,09,230	43,08,349	47,46,186	8,36,31,060
Required Return	8.01%						
Perpetual Growth	2.20%						
Today's Value	10,00,36,951						
Share's Outstanding	11,75,000						
Fair Value of Equity	85						

Fair value of an equity is the actual value of the share. It the amount both agreed upon by the buyer and seller. DCF valuation will tell you the fair value of stock, if the particular stock is undervalued or overvalued. The intrinsic value is usually depended on the operations of the company. In our case the PayPal stocks are overvalued. But the thing about this process is that, it is completely depended on the inputs we use. It is based on several assumptions which are completely depended on the user. So based on your assumptions the fair value of share can even be greater than our calculated value. But it needs to be taken into account that these prices also depend on the current market conditions and economic conditions the company is operating in.