ACCT 313 Accounting-Based Valuation

Netflix Valuation

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Part I: Executive Summary

Netflix is an Internet video streaming network. During its 20 years of evolvement it developed from a company selling and renting DVDs to one with three business segments, including domestic streaming, international streaming, and domestic DVD. Netflix is currently investing heavily in original programming to attract and retain members. The monthly membership fees make up for their operational revenue. In the past five years, Netflix has been growing fast overall and especially on their international business although it has not been profitable yet. It raised substantial amount of debt to fund the growth, which reflects as rising of leverage ratio. Netflix faces various challenges from competition to attract and retain members, complexity of management as an large international company, maintaining relations with partners, IP protection and government regulations, etc. Given the fixed cost structure and relatively thin contribution profit margin, its inability to maintain a competitive position in streaming industry may put it into financial distress.

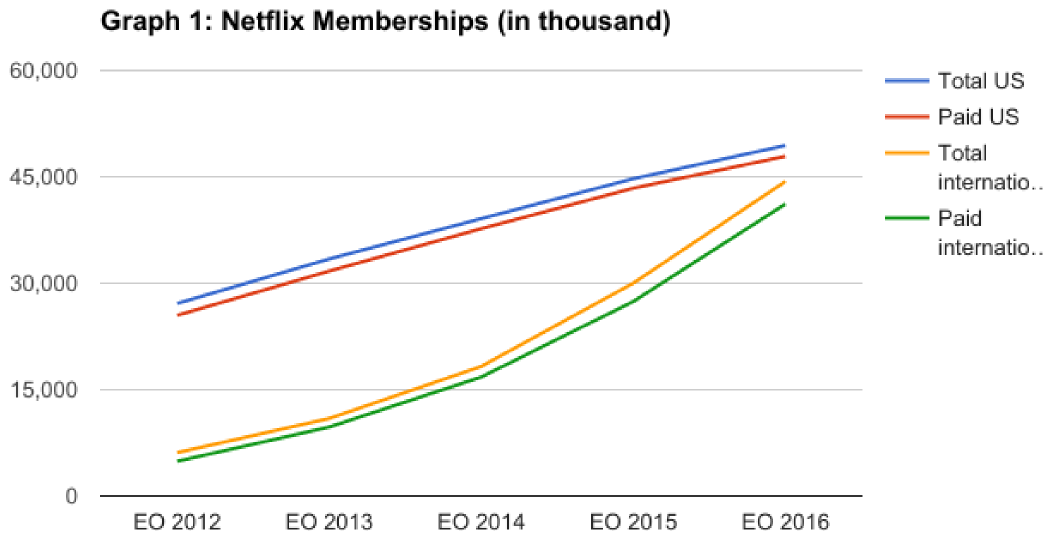
We expect Netflix to experience a declining growth in membership count in the next 5 years. We also predict a decreasing growth of invested capital from the current 40% growth to the terminal 10%. The ROIC is expected to increase as the current strategy of original content creation gains traction and stabilize at around 15%. In applying the economic profit model, we also assume Netflix continues to reinvest without paying dividends and constant turnovers for all the assets except for cash and cash equivalents and short-term investments. The firm valuation of Netflix we determined is around 26.5B, which is significantly lower than its current market capitalization of 64B. This may be because the market is overly optimistic about Netflix's future growth, and we predict that it may still take some time before the gains are realized.

Part II: Historical Analysis

Netflix is a world leading Internet TV network that provides streaming videos, including their original series to their members. Netflix has three reportable segments: domestic streaming, international streaming and domestic DVD. All three segments drive revenue from monthly membership fees and provide streaming to US members or international members or DVD-by-email.

Netflix mainly competes with other entertainment video providers, such as multichannel video programming distributors, internet-based movie and TV content providers, video gaming providers and DVD rental outlets and more broadly against other sources of entertainment. What's worth mentioning is that Netflix doesn't just compete with its competitors to provide service to its members. They also have to compete against them to obtain the content to provide, including license streaming contents and original content projects. Their competitors include Hulu, NBC, ABC, HBO, Redbox, Amazon Prime Video, etc.

Overall, Netflix has been growing faster than the Street's estimates by adding more members both in the domestic US market and in international markets. The growth of domestic membership is slowing down, but the rapid growth of international membership covers up to achieve record high in new memberships each quarter.



Contribution margin stays flat over the years as each business segment improved its contribution margin, but the segment portfolio shifted toward less profitable segment, International Streaming.

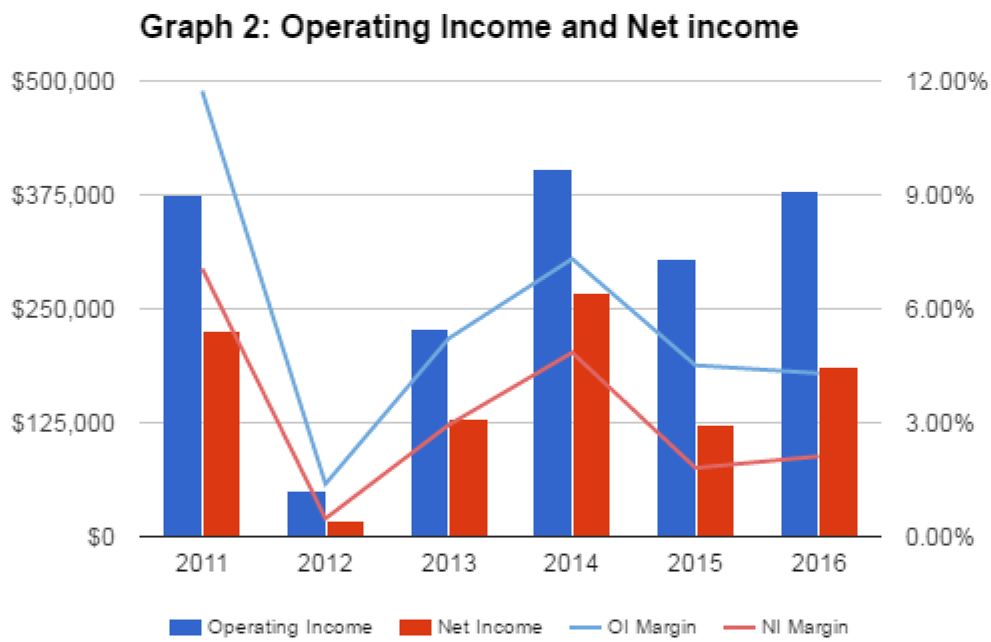
Table 1: Contribution Margin of each business segment

	2012	2013	2014	2015	2016	delta
Domestic Streaming	17%	23%	27%	33%	36%	*+19 pts*
International Streaming	-135%	-39%	-12%	-17%	-10%	*+125 pts*
DVD Rental	47%	48%	48%	50%	52%	*+5 pts*
Total	14%	18%	21%	20%	20%	*+6 pts*

Table 2: Revenue contribution of each business segment

	2012	2013	2014	2015	2016	delta
Domestic Streaming	61%	63%	62%	62%	57%	*-4 pts*
International Streaming	8%	16%	24%	29%	36%	*+28 pts*
DVD Rental	31%	21%	14%	10%	6%	*-25 pts*

Operating Income and Net Income has dropped harshly in 2012 due to the strategic challenges. (See Graph 2) First, the increase in subscription price resulted in the decrease in paid memberships. Second, the international expansion reduced its productivity drastically. Third, Netflix encouraged the cannibalisation between its profitable DVD Rental business and the growing but not yet profitable Streaming business. After recovering from the sharp profitability drop in 2012, its Operating Income and Net Income is in a slight downtrend due to increase in “Technology and Development” and “General and Administrative”, which mainly resulted from the international expansion.



In addition, the gap between Operating Income and Net Income has been widen as Interest Expense has been increasing and Other Income had been increasing until 2015. Interest Expense has been increasing due to the increase in long-term debt, and the financial risk of increasing debt will be discussed below.

In the future, Netflix sees its profitability recovering. It states in the “Long-term View” on its website that “We’re targeting a 7% operating margin in 2017 and plan to steadily increase operating profit and margin from there as we balance growth with profitability.” As the segment contribution margin is improving for all the business segment, including the International Streaming segment, the targeted operating margin will not be impossible.

Even though Netflix is growing at a very high pace and remaining as the top player in contents streaming industry, there are risks to consider.

FIrst, the long-term investment in contents has increased its leverage and decreased its Asset/Equity Turnover together with international expansion.

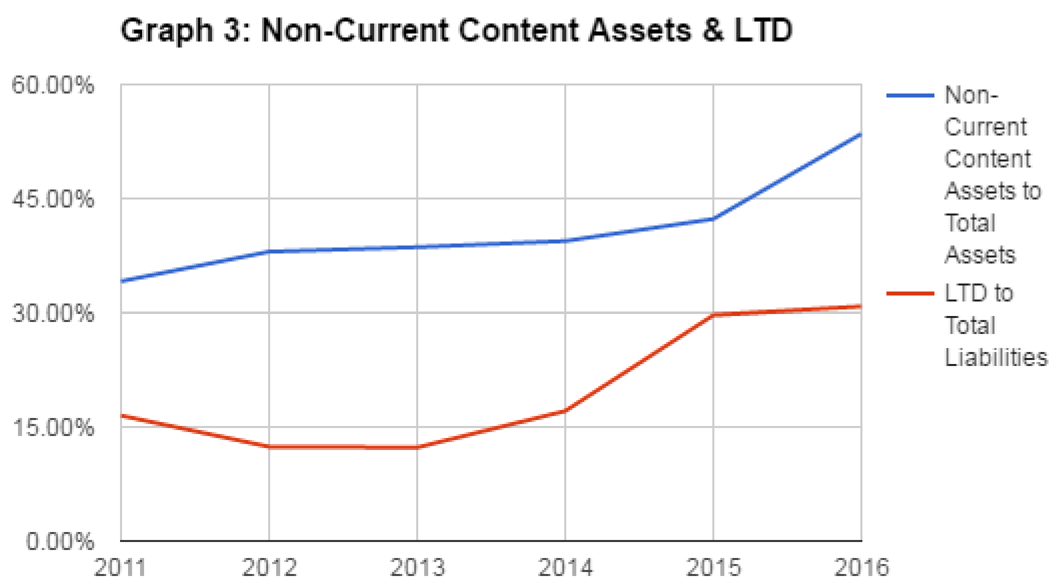


Table 3: Leverage and Turnover

	2012	2013	2014	2015	2016	delta
LTD-to-assets	0.10	0.09	0.13	0.23	0.25	*+15 pts*
LTD-to-equity	0.54	0.37	0.48	1.07	1.26	*+0.72 pts*
Asset Turnover	1.03	0.93	0.88	0.79	0.74	*-0.29 pts*

Equity Turnover	5.20	4.21	3.45	3.32	3.60	*-1.60 pts*

Netflix has announced in its “Long-term View” that it’s going “to spend over $6B on a P&L basis on content for our members” and “We are making great headway with our slate of original series, which is a rapidly growing proportion of our spending.” The contents are obviously important for the streaming business and it has been the competitive advantage of Netflix over competitors. However, with increase in Non-Current Content Assets to Total Assets and Long Term Debt, the financial risk and the likelihood of financial distress has been increasing. If the contents turned out to be less valuable in the future, Netflix might fall into a financially risky position.

And there is outstanding concern for consequences of Netflix’s inability to attract and retain members. Due to its long-term and fixed cost nature, certain amount of membership acquisition or retention is required. If they are not able to achieve this, they will suffer from lowered growth rate and thus margins and even liquidity problems. Moreover, inability to attract and retain members will also demand for higher marketing expenditures. Taking in account that Netflix is shifting towards original programming, if it doesn’t meet expectation, Netflix will be adversely affected.

Another risky factor is Netflix’s rapid international growth and potential issues rising with it. As mentioned before, Netflix is growing fast in international market but is not yet profiting from it. The management of growing complexity is also challenging for Netflix.

This complexity includes possibly less favorable foreign IP laws, US laws relating to export control and economic sanctions, currency exchange rate fluctuation (currently not hedged), unfamiliar competitor environment, piracy, etc.

There is also risk from its competitors and partners. Netflix relies on some partners to make their streaming contents available on certain devices like TV set-top boxes. And in the special case of Amazon, Netflix compete with Amazon Prime Video in streaming business but relies on Amazon Web Services to provide their streaming service. In terms of relationship with other TV networks, Netflix is currently protected by the government regulation on Net Neutrality. Netflix may suffer from an unexpected regulation change. In summary, any unexpected relationship change with these companies may incur significant cost for Netflix, which might push it into financial distress considering its current low net income margin.

Part III: Prospective Analysis

P&L Drivers

($ in thousands, except monthly revenue)

	Historical		Projections				
	2015A	2016A	2017E	2018E	2019E	2020E	2021E
Domestic Streaming							
Total memberships at end of period	44,738	49,431	52,891	55,536	57,757	59,490	60,680
Paid memberships at end of period	43,401	47,905	51,523	54,377	56,840	58,843	60,323
Revenue	$4,180,339	$5,077,307	$5,893,511	$6,712,878	$7,528,836	$8,214,028	$8,832,243
Cost of revenues	2,487,193	2,855,789	3,227,042	3,582,016	3,940,218	4,294,837	4,638,424
Marketing	317,646	382,832	412,546	469,901	489,374	533,912	529,935
Contribution profit	**1,375,500**	**1,838,686**	**2,253,923**	**2,660,961**	**3,099,244**	**3,385,279**	**3,663,884**
Contribution Margin	*32.9%*	*36.2%*	*38.2%*	*39.6%*	*41.2%*	*41.2%*	*41.5%*
International Streaming							
Total memberships at end of period	30,024	44,365	64,329	86,844	110,292	131,248	145,685
Paid memberships at end of period	27,438	41,185	60,040	81,488	104,041	124,465	138,885
Revenue	$1,953,435	$3,211,095	$5,128,359	$7,731,587	$10,911,894	$14,093,473	$16,576,394
Cost of revenues	1,780,375	2,911,370	4,017,691	5,423,882	7,051,047	8,813,809	10,576,571
Marketing	506,446	608,246	1,025,672	1,391,686	1,636,784	2,114,021	2,486,459
Contribution profit	**(333,386)**	**(308,521)**	**84,996**	**916,019**	**2,224,063**	**3,165,643**	**3,513,364**
Contribution Margin	*-17.1%*	*-9.6%*	*1.7%*	*11.8%*	*20.4%*	*22.5%*	*21.2%*
Domestic DVD							
Total memberships at end of period	4,904	4,114	3,460	2,910	2,447	2,058	1,731
Paid memberships at end of period	4,787	4,029	3,391	2,852	2,398	2,017	1,696
Revenue	$645,737	$542,267	$456,368	$383,816	$322,799	$271,482	$228,323
Cost of revenues	323,908	262,742	216,558	178,292	146,720	120,680	99,212
Marketing	-	-	-	-	-	-	-
Contribution profit	**321,829**	**279,525**	**239,810**	**205,524**	**176,079**	**150,801**	**129,111**
Contribution Margin	*49.8%*	*51.5%*	*52.5%*	*53.5%*	*54.5%*	*55.5%*	*56.5%*

To project out the income statement, we used a bottom-up approach by forecasting out each individual segment and used paid memberships as the main drivers. We assumed a declining growth in membership in the domestic streaming segment since they have already captured 50 million out of the 100 million households in the U.S. Management also forecasts increased competition as satellite companies move into the streaming space and major media companies continue to grow their over-the-top platforms such as Hulu and HBO Now. The international streaming segment has seen very promising growth at around 50% in 2016 but the growth, too has been declining. International streaming subscribers have just surpassed domestic streaming but by 2021, we forecast that international streaming will have more than double domestic's subscriber count. However, by 2021, the contribution profit between the two segments would be approximately equal as the cost of revenues for international streaming will grow significantly due to heavier international content investments. The domestic DVD is experiencing a steady decline and it is not a main focus for Netflix, contributing less than 5% to total revenue. By 2021 that number is projected to be less than 1% and the segment will be insignificant.

Netflix P&L

($ in thousands)

	Historical		Projections					CAGR
	2015A	2016A	2017E	2018E	2019E	2020E	2021E	'15A-'21E
Revenue	$6,779,511	$8,830,669	$11,478,237	$14,828,282	$18,763,529	$22,578,982	$25,636,960	*24.8%*
Cost of revenues	4,591,476	6,029,901	7,461,290	9,184,191	11,137,985	13,229,327	15,314,207	*22.2%*
Gross Profit	2,188,035	2,800,768	4,016,947	5,644,091	7,625,544	9,349,656	10,322,753	*29.5%*
Marketing	824,092	991,078	1,438,217	1,861,587	2,126,158	2,647,933	3,016,394	*24.1%*
Technology and development	650,788	852,098	1,107,570	1,430,826	1,810,550	2,178,714	2,473,788	*24.9%*
General and administrative	407,329	577,799	803,477	1,037,980	1,313,447	1,580,529	1,794,587	*28.0%*
Operating Income (Loss)	305,826	379,793	667,683	1,313,698	2,375,389	2,942,480	3,037,984	*46.6%*
% Margin	*4.5%*	*4.3%*	*5.8%*	*8.9%*	*12.7%*	*13.0%*	*11.9%*	
Other income (expense)								
Interest expense	(132,716)	(150,114)	(156,275)	(255,826)	(405,816)	(474,026)	(513,283)	*25.3%*
Interest and other income	(31,225)	30,828	30,828	30,828	30,828	30,828	30,828	
Earnings before Tax	141,885	260,507	542,236	1,088,700	2,000,401	2,499,282	2,555,529	*61.9%*
Provision (benefit) for income taxes	19,244	73,829	153,672	308,543	566,924	708,309	724,250	
Effective Tax Rate	*13.6%*	*28.3%*	*28.3%*	*28.3%*	*28.3%*	*28.3%*	*28.3%*	
Adj. Net Income	122,641	186,678	388,563	780,157	1,433,477	1,790,973	1,831,279	*56.9%*
% Margin	*1.8%*	*2.1%*	*3.4%*	*5.3%*	*7.6%*	*7.9%*	*7.1%*	

For the P&L, everything from marketing and above are summations from the three segments. Technology and development and general and administrative expenses forecasted out as a constant percentage of revenue, similar to its historical margins. The 2017 projections are in line with management's forecasts. Provision for income taxes is forecasted out with 2016's effective tax rate of 28.3%. Long-term margins will stabilize at around 7%.

Netflix Balance Sheet

($ in thousands)

	Historical		Projections					CAGR
	2015A	2016A	2017E	2018E	2019E	2020E	2021E	'15A-'21E
Assets								
Current assets:								
Cash and cash equivalents	$1,809,330	$1,467,576	$1,854,428	$2,121,466	$2,408,781	$2,628,630	$2,730,346	*7.1%*
Short-term investments	501,385	266,206	347,733	344,773	353,970	358,347	351,149	
Current content assets, net	2,905,998	3,726,307	4,894,463	6,242,370	7,850,044	9,107,980	10,146,749	
Other current assets	215,127	260,202	357,638	440,525	569,461	645,900	734,063	
Total current assets	5,431,840	5,720,291	7,454,261	9,149,135	11,182,255	12,740,856	13,962,306	***17.0%***
Non-current content assets, net	4,312,817	7,274,501	9,122,980	15,590,823	21,936,235	23,221,730	28,052,190	***36.6%***
PP&E, net	173,412	250,395	273,291	353,054	446,751	537,595	610,404	***23.3%***
Other non-current assets	284,802	341,423	472,554	578,991	751,621	849,563	968,477	
Total assets	**10,202,871**	**13,586,610**	**17,323,086**	**25,672,003**	**34,316,862**	**37,349,744**	**43,593,377**	***27.4%***
Liabilities and Stockholders' Equity								
Current liabilities:								
Current content liabilities	2,789,023	3,632,711	4,722,524	6,139,282	7,674,102	9,208,922	10,590,261	
Accounts payable	253,491	312,842	410,371	505,130	612,589	727,613	842,281	
Accured expenses	140,389	197,632	273,411	353,504	428,587	523,038	594,679	
Deferred revenue	346,721	443,472	587,910	774,326	998,586	1,224,222	1,415,661	
Total current liabilities	3,529,624	4,586,657	5,994,216	7,772,242	9,713,864	11,683,795	13,442,882	***25.0%***
Non-current content liabilities	2,026,360	2,894,654	3,265,278	4,956,601	6,096,472	5,524,865	5,552,030	***18.3%***
Long-term debt	2,371,362	3,364,311	4,649,793	8,469,513	12,341,554	11,967,491	14,354,726	***35.0%***
Other non-current liabilities	52,099	61,188	67,307	74,037	81,441	89,585	98,544	
Total liabilities	**7,979,445**	**10,906,810**	**13,976,594**	**21,272,394**	**28,233,331**	**29,265,737**	**33,448,182**	***27.0%***
Stockholders' equity								
Common stock	1,324,809	1,599,762	1,883,786	2,161,723	2,415,816	2,627,300	2,857,298	***13.7%***
Accumulated other comprehensive loss	(43,308)	(48,565)	(54,460)	(59,437)	(63,086)	(65,066)	(65,156)	
Retained earnings	941,925	1,128,603	1,517,166	2,297,323	3,730,801	5,521,773	7,353,052	***23.3%***
Total stockholders' equity	**2,223,426**	**2,679,800**	**3,346,493**	**4,399,609**	**6,083,531**	**8,084,008**	**10,145,195**	***28.8%***

We forecasted out the assets on the balance sheet using turnover ratio assuming constant turnover for all the assets except for cash and cash equivalents and short-term investments. We forecasted cash to have a declining growth as it should grow with increased cash flow over time, but since Netflix does not need a significant amount of cash on hand we anticipate that they will continue to spend the majority of it on content. Netflix's total asset is currently at $13.6 billion and projected to grow to $43.6 billion in 2021.

The current content liability was forecasted out with a declining growth rate because we assumed that as they slow the investment growth in content the liabilities too, will decrease. Non-current content liabilities were driven off of non-current content assets following a decreasing trend. Long-term debt increases at a CAGR of 35% from 2015A to 2021E, as we predict Netflix will continue to use debt to fuel growth in the near future. Based on our forecasts, the debt-to-equity ratio will peak at 2x in 2019 and start decreasing as Netflix matures and slows down content growth. We assumed that Netflix will continue to reinvest in its business and not issue dividends, similar to many other technology companies.

	Historical		Projections				
	2015A	2016A	2017E	2018E	2019E	2020E	2021E
Ratio Analysis							
Cash turnover	4.64	5.39	6.19	6.99	7.79	8.59	9.39
Short-term investments turnover	13.61	23.01	33.01	43.01	53.01	63.01	73.01
Current content turnover	2.67	2.66	2.66	2.66	2.66	2.66	2.66
Other current asset turnover	36.89	37.16	37.16	37.16	37.16	37.16	37.16
Current asset turnover	**1.45**	**1.58**	**1.74**	**1.79**	**1.85**	**1.89**	**1.92**
Non-current content asset turnover	1.91	1.52	1.40	1.20	1.00	1.00	1.00
Fixed asset turnover	41.94	41.67	42.00	42.00	42.00	42.00	42.00
Other non-current asset turnover	28.42	28.20	28.20	28.20	28.20	28.20	28.20
Total asset turnover	**0.79**	**0.74**	**0.74**	**0.69**	**0.63**	**0.63**	**0.63**
Revenue	**6,779,511**	**8,830,669**	**11,478,237**	**14,828,282**	**18,763,529**	**22,578,982**	**25,636,960**
Net Income	**122,641**	**186,678**	**388,563**	**780,157**	**1,433,477**	**1,790,973**	**1,831,279**
ROA	1.4%	1.6%	2.5%	3.6%	4.8%	5.0%	4.5%
ROE	6.0%	7.6%	12.9%	20.1%	27.3%	25.3%	20.1%
ROOA	1.1%	1.2%	1.8%	2.6%	4.0%	4.5%	8.5%
RNOA	2.5%	2.8%	3.9%	5.1%	7.6%	8.2%	15.2%
ROCE	10.4%	12.8%	22.3%	38.6%	62.6%	71.0%	66.8%
Debt to Equity	1.07	1.26	1.39	1.93	2.03	1.48	1.41

Netflix currently has an ROA of 1.6%, RNOA of 2.5%, and ROE of 6.0%. The RNOA is expected to grow to 15% and ROCE will be around 65%.

Netflix Free Cash Flow *($ in thousands)*

	Historical		Projections				
	2015A	2016A	2017E	2018E	2019E	2020E	2021E
Adj. EBIT	$305,826	$379,793	$667,683	$1,313,698	$2,375,389	$2,942,480	$3,037,984
(-) Taxes	(107,039)	(132,928)	(233,689)	(459,794)	(831,386)	(1,029,868)	(1,063,295)
(+) Deferred tax assets	58,655	46,847	28,108	5,341	-	-	-
Adj. NOPAT	**257,442**	**293,712**	**462,102**	**859,245**	**1,544,003**	**1,912,612**	**1,974,690**
(+) PP&E D&A	62,283	57,528	98,156	126,804	160,456	193,084	219,234
(+) DVD content amortization	79,380	78,952	122,299	131,050	74,706	32,641	11,378
(+) Stock-based compensation	124,725	173,675	233,152	301,341	374,405	446,464	510,069
(-) Excess tax benefits from stock-based compensation	(80,471)	(65,121)	(81,603)	(105,469)	(131,042)	(156,262)	(178,524)
Net working capital	(408,499)	(600,148)	(742,115)	(1,089,346)	(1,294,360)	(1,929,916)	(2,562,070)
(-) Increase in NWC	63,902	191,649	141,967	347,231	205,013	635,556	632,155
(-) PP&E Capital expenditures	(91,248)	(107,653)	(121,052)	(206,567)	(254,152)	(283,928)	(292,043)
(-) Net expenditures for acquisitions and intangible assets	(77,958)	(77,177)	(77,177)	(77,177)	(77,177)	(77,177)	(77,177)
Unlevered Free Cash Flow	**338,055**	**545,565**	**777,844**	**1,376,457**	**1,896,212**	**2,702,989**	**2,799,782**

To calculate NOPAT, we forecasted out their deferred tax assets and pulled EBIT from the P&L. We added back D&A for PP&E and DVD content, as well as stock-based compensation net of tax benefits. We subtracted out change in net working capital which included current content assets and liabilities. We also subtracted out capital expenditures which included PP&E and DVD content assets. We did not include non-current content assets in the calculation because there was no purchase of non-DVD content assets in cash flow from financing, so we did not categorize it as a capital expenditure, and because it was non-current we excluded it in our change in net working capital calculation. We projected an unlevered free cash flow of $545 million in 2016 and $2.8 billion in 2021.

Part IV: Valuation of Netflix's Equity

Choice of valuation model: We decided to use an economic profit model for the valuation with more emphasis on current economic profits. Since Netflix is making a big bet on original content to drive their future earnings, it is reasonable to use the invested capital to understand firm value. We used our pro-forma financial statements from part III to build out our model.

Invested Capital (IC): We used IC= SE + Financial Liabilities - Financial Assets

ROIC: NOPAT/Average IC

WACC: The 2016 WACC was taken from Bloomberg which was 11.83% based on which we estimate a terminal WACC of 12%

Economic Profit: Invested Capital*(ROIC-WACC). As shown below in the table with values taken from Bloomberg, ROIC<WACC since 2012 (except for 2014) and we expect that to continue for the next five years since they are investing heavily in content creation. Thus Netflix is actually destroying vallue since the opportunity cost of the capital deployed is higher than the returns it is generating. However, we consider this a as an inevitable but temporary feature oftheir current growth strategy where returns from those content is only starting to stream in but will continue over long horizons. Over time, their investment in content will decrease as they solidify their position as the market leader, similar to technology companies like Google. With their large user base and recurring cash flow, they will be able to generate profitable returns once they scale

Date	WACC(%)	ROIC(%)
12/31/2011	9.22%	27.99%
12/31/2012	9.14%	-3.24%
12/31/2013	11.78%	7.81%
12/31/2014	12.15%	13.73%
12/31/2015	12.27%	5.75%
12/31/2016	11.53%	4.50%
3/15/2017	11.83%	4.50%

back their investments in content.

Table: WACC and ROIC number from Bloomberg

Terminal ROIC: Projected ROIC for the next five years based on current invested capital trend is around 9%. However, between 2010-2016, before embarking on this new strategy ROIC was an average of 21% which a high of 32% in the 2009 and 2010. Comparing ROIC to a mature entertainment company, we looked at Walt Disney at a comparable company whose average ROIC is in the 12%-15% range. We feel given

Netflix's web enabled business model it can beat that number. However, there is also a lot of volatility in Netflix's ROIC in the past thus to be conservative we chose a terminal ROIC of 15%.

Terminal growth rate (g) of invested capital: The current growth rate in IC is very high, in 2016 it was 41.5% and expect a similar trend to continue in the next five years as they are only beginning many of their content creation partnership internally such as the exclusive relationship with Bollywood superstar Shah Rukh Khan' company Red Chillies. In the long-run, so as to have positive economic profits, Netflix will need to keep the growth rate of its IC below the WACC. But it will try to keep it as close as it can because content creation by its nature requires a lot of capital. Thus we estimate a terminal IC growth rate of 10%, down from the 41.5% in 2016 and expected 22.6% in 2021.

Netflix Residual Income Model

($ in thousands)

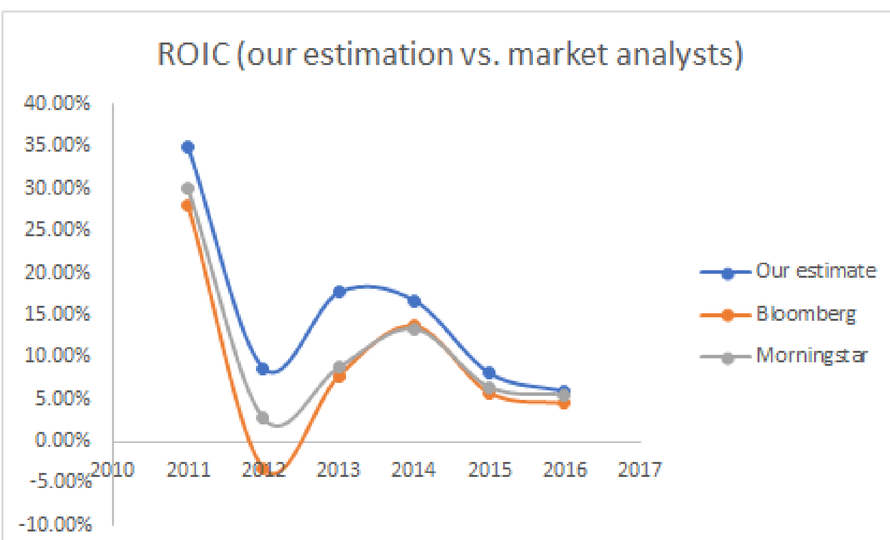
Year	Invested Capital	Growth of IC	Forecasted ROIC	WACC (Bloomberg)	Economic Profit	Discount factor	PV of Economic Profit
2016A	5,777,905	41.5%	5.95%	11.53%	(322,284)	0.897	(288,970)
2017E	7,648,553	32.4%	6.88%	11.83%	(378,477)	0.894	(338,434)
2018E	12,524,349	63.7%	8.52%	12.00%	(435,998)	0.797	(347,575)
2019E	18,071,114	44.3%	10.09%	12.00%	(344,613)	0.712	(245,289)
2020E	19,693,152	9.0%	10.13%	12.00%	(368,416)	0.636	(234,135)
2021E	24,148,772	22.6%	9.01%	12.00%	(722,477)	0.567	(409,953)

Beginning invested Capital	5,777,905
(+) Terminal Value	20,553,993
(+) Financial Assets	1,755,972
(+) Sum of economic profit	(1,575,385)
Firm Value	**26,512,484**

Assumptions	
Terminal WACC (rwacc):	12.00%
Terminal ROIC:	15.00%
Terminal Value of IC growth (g):	10%
Financal Asset:	1,755,972

Firm Valuation: Our estimated firm valuation for Netflix is 26.5B which is much less than the current market cap of 64B. We believe that the current market valuation is overpriced and can only be achieved if we assume a terminal ROIC of between 20%-21% and g of 10%. Alternately if ROIC is around 15%, the invested capital needs to grow faster as close as possible to the WACC of 12%. A valuation close to 64B can be reached by an ROIC of 15% and a g=11.3%.

Comparison to market analysts: While we did use the WACC from Bloomberg we calculated our own values for Invested Capital and ROIC. The table below shows how



our ROIC values compare next to Bloomberg and MorningStar.

Appendix: Key Figures

		2011	2012	2013	2014	2015	2016	CAGR
Consolidated figures	Sales	$3,204,577	$3,609,282	$4,374,562	$5,504,656	$6,779,511	$8,830,669	22.5%
	Contribution Profit	$762,038	$518,016	$787,417	$1,144,710	$1,363,943	$1,809,690	18.9%
	Operating income	$376,068	$49,992	$228,347	$402,648	$305,826	$379,793	0.2%
	NOPAT	$244,444	$32,495	$148,426	$261,721	$198,787	$246,865	0.2%
	Net Income	$226,126	$17,152	$128,709	$266,799	$122,641	$186,678	-3.8%
	Total Assets	$3,069,196	$3,967,890	$5,412,563	$7,042,500	$10,202,871	$13,586,610	34.7%
	Operating Assets	$2,779,438	$3,510,103	$4,817,123	$6,547,612	$9,701,486	$13,320,404	36.8%
	Financial Assets	$289,758	$457,787	$595,440	$494,888	$501,385	$266,206	-1.7%
	Total Liabilities	$2,426,386	$3,223,217	$4,079,002	$5,184,792	$7,979,445	$10,906,810	35.1%
	Operating Liabilities	$2,026,386	$2,823,217	$3,579,002	$4,298,943	$5,608,083	$7,542,499	30.1%
	Net Operating Assets	$753,052	$686,886	$1,238,121	$2,248,669	$4,093,403	$5,777,905	50.3%
Efficiency / Profitabilit	ROA		0.92%	3.16%	4.20%	2.31%	2.08%	
	ROOA		1.03%	3.56%	4.61%	2.45%	2.14%	
	RNOA/ROIC		4.51%	15.42%	15.01%	6.27%	5.00%	
	ROE		2.47%	12.39%	16.72%	6.01%	7.61%	
	Shareholder's Equity	$642,810	$744,673	$1,333,561	$1,857,708	$2,223,426	$2,679,800	
	Contribution Margin	23.78%	14.35%	18.00%	20.80%	20.12%	20.49%	
	Operating Margin	11.74%	1.39%	5.22%	7.31%	4.51%	4.30%	
	NI Margin	7.06%	0.48%	2.94%	4.85%	1.81%	2.11%	
	Asset Turnover		1.03	0.93	0.88	0.79	0.74	
	Equity Turnover		5.20	4.21	3.45	3.32	3.60	
Financial Risk	Debt to Assets	0.79	0.81	0.75	0.74	0.78	0.80	
	Debt to Equity	3.77	4.33	3.06	2.79	3.59	4.07	
	LTD to assets	0.13	0.10	0.09	0.13	0.23	0.25	
	LTD to equity	0.62	0.54	0.37	0.48	1.07	1.26	