

### Executive Summary of Roku:

Given the information at hand, the best estimate of the market price per share when Roku goes public sits between \$28-\$33. The various factors that will influence the closing price on IPO day include the extent to which the shares are systematically underpriced, the terminal value of Roku as it shifts to a platform-based revenue model, and a proper estimate of the cost of capital. Along with these factors, the dual-class equity structure of the shares could raise questions in regards to governance concerns and how much say the public will truly have in the decision-making process of Roku.

### Platform-Based Revenue Model:

Currently, Roku is in the midst of switching its revenue from hardware-based revenue streams (player sales) to platform-related revenues through the form of advertising and content purchases made on their platform. Traditionally, Roku offered a set-top box that connected to an owner's television through Ethernet, Wi-Fi, or plugging directly into the TV itself. Now Roku is ditching this form of sales revenue and focusing on the platform-based aspect by expanding its streaming services and increasing ads on its platform. Roku advertised their online platform as a "neutral conduit to content", meaning they could partner with any content provider and have their services on the Roku platform. Current content providers included Netflix, HBO Now, CBS News, and Hulu. This plan of offering an extensive reach of content (from sports to movies to newspapers and media) made Roku a frontrunner for satisfying consumer demand on all cylinders. Content providers had the ability to gain access to a large user base through Roku due to the user wanting to access all their streaming and media services on one platform at one time. Since Roku is moving away from selling physical hardware devices anymore to access their platform, they needed a way to monetize their content, and this occurred through advertising-based revenues and content-related revenues. Roku's platform was an attractive space for advertising placement across all industries and firms due to the reach the platform had and the number of users that utilized the platform on a steady basis.

On the other hand, Roku did face some downside and competition when transitioning from hardware to platform-based revenues. A major challenge was getting all the content providers to renew their contracts with Roku. If big industry players such as Netflix, Hulu, and Amazon decide to take their content elsewhere and not display their services on Roku, the platform could face a sharp decline in revenue as well as consumer demand. The strong dependence on content providers to maintain contractual agreements over extended periods of time is a major flaw in Roku's platform-based revenue model.

### Dual Class Equity Structure:

In the announcement of the IPO, Roku revealed that there will be both Class A and Class B shares that are weighted differently in terms of voting rights. Class A shares are issued to the public during the IPO and carry a voting value of one vote per one share. On the other hand, Class B shares (held almost solely by insiders of the company) carry a voting value of ten votes per one share. The unequal voting weights per each share class provide both advantages and disadvantages for Roku during their IPO.

As an advantage, the dual-class structure was designed with the intent of preventing dilution. Another advantage was that these Class B shares with 10x voting power gave company management and insiders full control over the company's decisions. Roku, naturally, views this as a benefit from the dual-class structure, for they need not fear about takeovers and drastic changes occurring to the company.

On the contrary, the dual-class structure of the shares present the public with minimal voting rights and decisions in the company. For the everyday investor/day-trader, this likely won't affect them at all, yet greatly affects the voting power for investment firms and other companies who desire large quantities of shares. The structure of the shares allows no external firms, parties, or entities to have serious voting rights, and all the power is designed to stay with Roku management and insiders. The fact that most of the voting power stays within Roku can lead to governance issues within the company. Management and employees at Roku with Class B shares could vote in line with what best benefits them (such as strategies and changes that affect their compensation) while ignoring the bests interests of the common shareholders.

#### Market Price Per Share For Roku:

In order to find the market price per share for Roku when they go public, I scheduled their cash flows from years 2018-2027 and discounted them back using various WACC's and different terminal growth rates. The general DCF model is show below in Exhibit 1:

#### Exhibit 1: DCF Model For Roku

Period		1	2	3	4	5	6	7	8	9	10
Year	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Platform Revenue		\$ 350.00	\$ 532.00	\$ 753.00	\$ 1,006.00	\$ 1,255.00	\$ 1,483.00	\$ 1,682.00	\$ 1,845.00	\$ 1,966.00	\$ 2,056.00
Player Revenue		\$ 304.00	\$ 310.00	\$ 316.00	\$ 323.00	\$ 329.00	\$ 336.00	\$ 342.00	\$ 349.00	\$ 356.00	\$ 363.00
Total Revenue		\$ 654.00	\$ 842.00	\$ 1,069.00	\$ 1,329.00	\$ 1,584.00	\$ 1,819.00	\$ 2,024.00	\$ 2,194.00	\$ 2,322.00	\$ 2,419.00
Cost Platform Revenue		\$ 161.00	\$ 245.00	\$ 346.00	\$ 463.00	\$ 577.00	\$ 682.00	\$ 773.00	\$ 849.00	\$ 905.00	\$ 946.00
Cost Player Revenue		\$ 258.00	\$ 254.00	\$ 250.00	\$ 245.00	\$ 240.00	\$ 235.00	\$ 229.00	\$ 223.00	\$ 228.00	\$ 232.00
Less: SG&A		\$ 144.00	\$ 185.00	\$ 235.00	\$ 292.00	\$ 348.00	\$ 400.00	\$ 445.00	\$ 483.00	\$ 511.00	\$ 532.00
EBITDA		\$ 91.00	\$ 158.00	\$ 238.00	\$ 329.00	\$ 419.00	\$ 502.00	\$ 577.00	\$ 639.00	\$ 678.00	\$ 709.00
Less: Depreciation & Amortization		\$ 10.00	\$ 10.00	\$ 16.00	\$ 25.00	\$ 41.00	\$ 63.00	\$ 104.00	\$ 135.00	\$ 146.00	\$ 155.00
EBIT		\$ 81.00	\$ 148.00	\$ 222.00	\$ 304.00	\$ 378.00	\$ 439.00	\$ 473.00	\$ 504.00	\$ 532.00	\$ 554.00
Tax Rate		21%	21%	21%	21%	21%	21%	21%	21%	21%	21%
Less: Taxes		\$ 17.01	\$ 31.08	\$ 46.62	\$ 63.84	\$ 79.38	\$ 92.19	\$ 99.33	\$ 105.84	\$ 111.72	\$ 116.34
NOPAT		\$ 63.99	\$ 116.92	\$ 175.38	\$ 240.16	\$ 298.62	\$ 346.81	\$ 373.67	\$ 398.16	\$ 420.28	\$ 437.66
Addback: Depreciation & Amortization		\$ 10.00	\$ 10.00	\$ 16.00	\$ 25.00	\$ 41.00	\$ 63.00	\$ 104.00	\$ 135.00	\$ 146.00	\$ 155.00
Unlevered OCF		\$ 73.99	\$ 126.92	\$ 191.38	\$ 265.16	\$ 339.62	\$ 409.81	\$ 477.67	\$ 533.16	\$ 566.28	\$ 592.66
Less: Capex		\$ 8.18	\$ 23.50	\$ 33.27	\$ 55.38	\$ 81.31	\$ 142.31	\$ 140.85	\$ 132.28	\$ 156.36	\$ 162.34
Less: Change NWC		\$ 17.80	\$ 23.41	\$ 28.42	\$ 32.49	\$ 31.86	\$ 29.35	\$ 25.65	\$ 21.27	\$ 16.08	\$ 12.06
FCFF		\$ 48.01	\$ 80.01	\$ 129.69	\$ 177.29	\$ 226.46	\$ 238.15	\$ 311.17	\$ 379.61	\$ 393.84	\$ 418.26
Terminal Value FCFF											\$ 5,665.87
Terminal Growth Rate	1.00%										
Platform Comps WACC:	8.40%										
PV of FCFF		\$ 44.29	\$ 68.09	\$ 101.81	\$ 128.40	\$ 151.30	\$ 146.78	\$ 176.93	\$ 199.11	\$ 190.57	\$ 186.71
PV of Terminal Value		\$ 2,529.14	In millions								
PV of Roku		\$ 3,923,135,531.81									
Less: Debt		\$ 22,811,000.00									
Total Equity Value		\$ 3,900,324,531.81									
Shares Outstanding		116469000									
<b>Value Per Share</b>		<b>\$ 33.49</b>									

Continuously, this DCF analysis produced a present value anywhere from \$3-\$4 billion depending on the WACC and terminal growth rate used.

Furthermore, to get a sense of the different scenarios for Roku's cost of capital, I found various WACC's using the comps given in the case. The three different WACC's are found using purely hardware comps, purely platform comps, and a mix of the two, which were found to be 8.14%, 8.40%, and 6.46%, respectfully. The D/E for Roku was found by averaging out the D/E ratios for each group of comps in each scenario, while the debt beta was held constant at 0.2. Exhibits 2, 3, and 4 depict the various WACC's for Roku using different sets of comps.

#### Exhibit 2: WACC from Hardware comps

Hardware Comps:	Debt	S/O	Stock Price	Beta	Assumed Debt Beta	MV Equity	D/E Ratio	Unlevered Beta	Weight Equity	Weight Debt	
Apple	87,030		5,500	158.73	0.90	0.2	873015	9.97%	0.84	90.9%	9.1%
Canon	5,554		1,092	34.42	0.85	0.2	37586.64	14.78%	0.77	87.1%	12.9%
Comcast	61,046		4,876	37.30	0.90	0.2	181874.8	33.56%	0.72	74.9%	25.1%
GoPro	0		139	10.97	1.45	0.2	1524.83	0.00%	1.45	100.0%	0.0%
TiVo	975		94	19.05	1.50	0.2	1790.7	54.45%	1.04	64.7%	35.3%
Verizon	108,080		4,086	49.34	0.75	0.2	201603.2	53.61%	0.56	65.1%	34.9%
Average Unlevered Beta:		0.90									
Average D/E:		27.73%									
Average We of comps:		80.46%									
Average Wd of comps:		19.54%									
Roku	N/A	N/A	N/A	1.09		0.2	N/A	27.73%	0.90		
Roku Ke		9.34%									
Roku Kd		4.01%									
Weight Equity		80.46%									
Weight Debt		19.54%									
Tax Rate		21.00%									
WACC using Hardware Comps		8.14%									

#### Exhibit 3: WACC from Platform Comps

Platform Comps:	Debt	S/O	Stock Price	Beta	Assumed Debt Beta	MV Equity	D/E Ratio	Unlevered Beta	Weight Equity	Weight Debt	
Disney	20,170		1,639	98.43	1.00	0.2	161326.8	12.50%	0.91	88.9%	11.1%
SiriusXM	5,848		4,965	5.47	1.10	0.2	27158.55	21.53%	0.94	82.3%	17.7%
DISH	16,479		484	53.38	1.06	0.2	25835.92	63.78%	0.73	61.1%	38.9%
Netflix	3,394		439	185.68	0.90	0.2	81513.52	4.16%	0.87	96.0%	4.0%
Google	3,940		699	936.86	1.05	0.2	654865.1	0.60%	1.04	99.4%	0.6%
Pandora	342		231	8.32	1.30	0.2	1921.92	17.79%	1.13	84.9%	15.1%
Average Unlevered Beta:	0.94										
Average D/E:	20.06%										
Average We of comps:	85%										
Average Wd of comps:	15%										
Roku	N/A	N/A	N/A	1.09		0.2	N/A	20.06%	0.94		
Roku Ke	9.33%										
Roku Kd	4.01%										
Weight Equity	0.85										
Weight Debt	0.15										
Tax Rate	21.00%										
WACC using Platform Comps	8.40%										

#### Exhibit 4: WACC from Hybrid Comps Approach

Hybrid of Platform and Hardware Debt	S/O	Stock Price Beta		Assumed Debt Beta	MV Equity	D/E Ratio	Unlevered Beta	Weight Equity	Weight Debt	
SiriusXM	5,848	4,965	5.47 1.10	0.2	27158.55		21.53%	0.94	82.3%	17.7%
Pandora	342	231	8.32 1.30	0.2	1921.92		17.79%	1.13	84.9%	15.1%
DISH	16,479	484	53.38 1.06	0.2	25835.92		63.78%	0.73	61.1%	38.9%
TiVo	975	94	19.05 1.50	0.2	1790.7		54.45%	1.04	64.7%	35.3%
Comcast	61,046	4,876	37.30 0.90	0.2	181874.8		33.56%	0.72	74.9%	25.1%
Average Unlevered Beta:	0.91									
Average D/E:	38.22%									
Average We of comps:	73.6%									
Average Wd of comps:	26.4% (Higher Wd, lower WACC)									
Roku	N/A	N/A	N/A 1.186	0.2 N/A			38.22%	0.91		
Roku Ke	9.92%									
Roku Kd	4.01%									
Weight Equity	73.6%									
Weight Debt	26.4%									
Tax Rate	21%									
WACC using Hybrid Comps	6.46%									

Due to Roku's new revenue model of platform-based sales, it is evident that the most relevant and useful WACC would be the one produced from only using the platform comps. Once the various costs of capital were found, a sensitivity analysis was ran using the DCF model and inputted each WACC against a terminal growth rate of 0.25%, 0.5%, 1%, 2%, and 3%. The varying terminal values in this case provide a better understanding of the upside and downside valuations of Roku based on the future growth in years 2027 and on. With these different scenarios, debt was subtracted from the present value of the free cash flows for Roku and this value was divided by the 116468631 total outstanding shares (including dilution) offered in the IPO. Exhibit 5 displays the sensitivity analysis from each case.

Exhibit 5: Price Per Share Sensitivity Analysis:

Terminal Growth Rate:	0.25%	0.50%	1%	2%	3%
Platform Comps WACC (8.40%)	\$ 31.49	\$ 32.11	\$ 33.49	\$ 36.88	\$ 41.53
Hardware Comps WACC (8.14%)	\$ 32.82	\$ 33.51	\$ 35.01	\$ 38.77	\$ 43.99
Hybrid Comps WACC (6.46%)	\$ 44.27	\$ 45.57	\$ 48.53	\$ 56.44	\$ 68.91

The sensitivity analysis depicts that on the lower end of the spectrum (with the highest WACC and lowest terminal growth rate) the closing price of Roku will be roughly \$31.49 after the IPO. In a more optimistic sense, the best case scenario illustrates that (with a low WACC from the hybrid comps approach and an upside terminal growth rate of 3%) Roku will close at around \$68.91 on the first day. As for the following months after the IPO, I expect the price of Roku to dip down slightly to adjust for any management and employees to sell shares in their possession. Another factor that could attribute to a price decrease would be if large firms / corporations with massive buying power sell back some of their shares due to the voting rights of their shares holding virtually no weight compared to the insider class B shares.

In summation, given the target IPO price of \$12-\$14, the uncertainty in the market, and the variance in the WACC and terminal value, it is reasonable to air on the side of caution and assume that Roku stock close anywhere between \$28-\$33 on IPO. , Given the mentioned 8% discount of underpricing factored in the initial IPO price, it is expected that Roku's stock closes on the lower end of the previously mentioned sensitivity analysis.