Snap Inc.

Valuing Snap After the IPO Quiet Period

Miika Suutala, Ali Amaan, Ting-Chuan Su, Andreas Klöfverskjöld, Enna Kuolimo

DCF model of Morgan Stanley's Nowak

WACC	9,70%
GR*	3,5%
LR**	2%

*GR = perpetual growth rate
**LR = leverage ratio

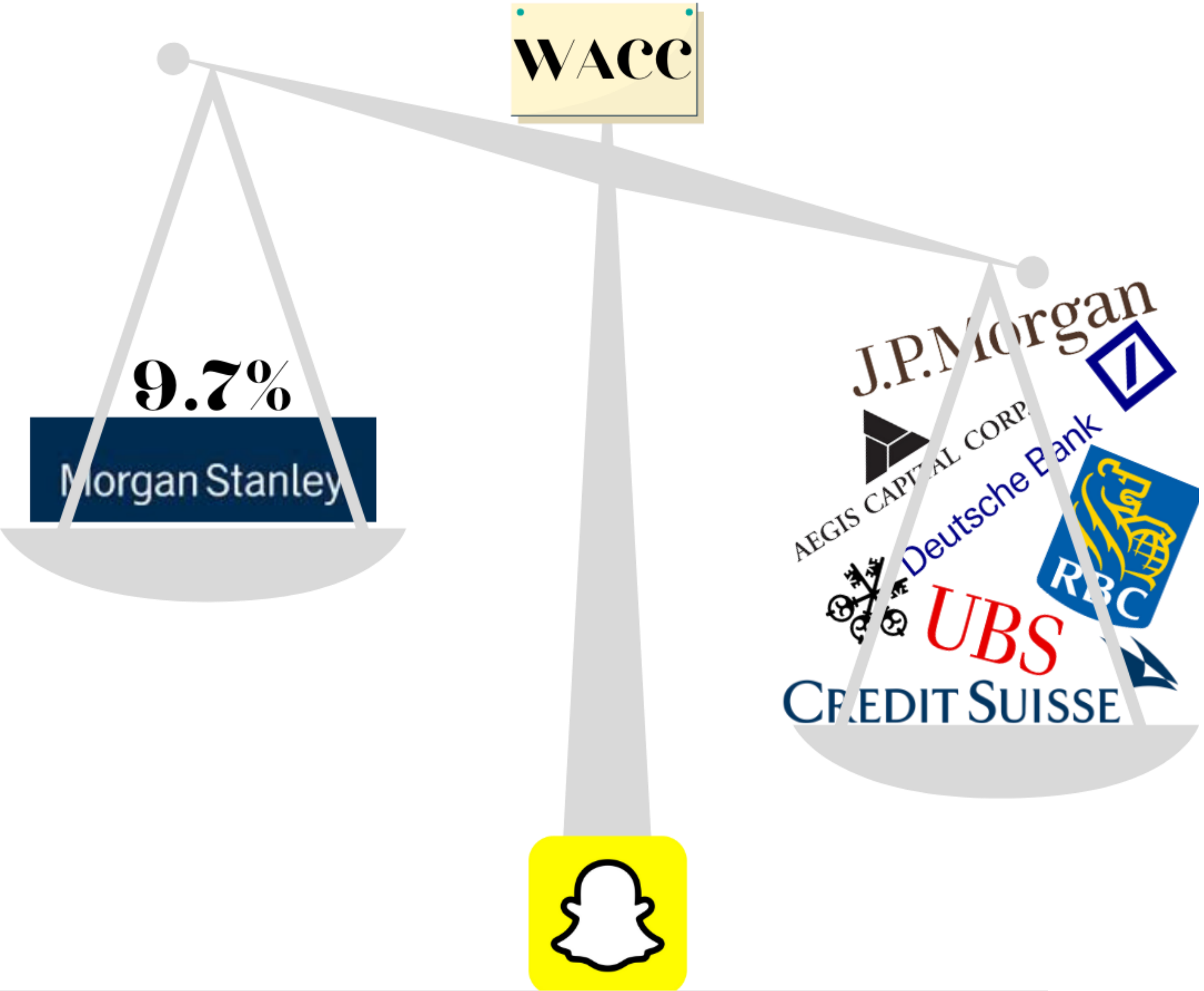
Year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Free Cash Flow ($ millions)	-708,8	-1186,2	-1093,0	-737,1	-242,5	818,5	1831,1	2958,2	3389,6	4054,2
Present value	n/a	-1081,3	-908,3	-558,4	-167,5	515,1	1050,7	1547,3	1616,2	31178,9

Terminal value	67679,0
EV	33192,9
Net debt	663,9
Value of equity	32529,0
Fully diluted shares (millions)	1404
Share price	23,17

- When using Nowak's DCF model share price of SNAP ends up at 23,17 USD.
- In the model the WACC seems out of line (too small) in the Nowak model. By recalculating the WACC the share price ends up being significantly lower, depending on the use of daily/weekly Beta values
- Also small variances in the perpetual growth rate give would change the target price significantly

Nowak's DCF model analysis: WACC, TVGR & FCF forecast

- **Least Discount Rate** used by any of the Independant, Lead Managers, and Other Underwriter firms.
- Based on Nowak's strong sense of **optimism** in Snap's future.
- Even, other confident firms did not use a WACC in the single digits.
- Concerning that it is approx. n the ballpark of Facebook, a $410B company with a history of turning in profit.
- Highest amongst it's own internet stock coverage universe.



WACC

TVGR

FCF Forecast

Nowak's DCF model analysis: WACC, TVGR & FCF forecast

WACC's calculated using Equity Betas given and none of them are even close to Nowak's estimates, in fact, supporting our analyses, they are Higher.

	Using 2 Yr Weekly Beta	Using 1 Yr Daily Beta
WACC	11,70%	10,60%
Asset Beta	1,67%	1,47%
Risk Free Rate	2.38%	
Risk Premium	5.59%	

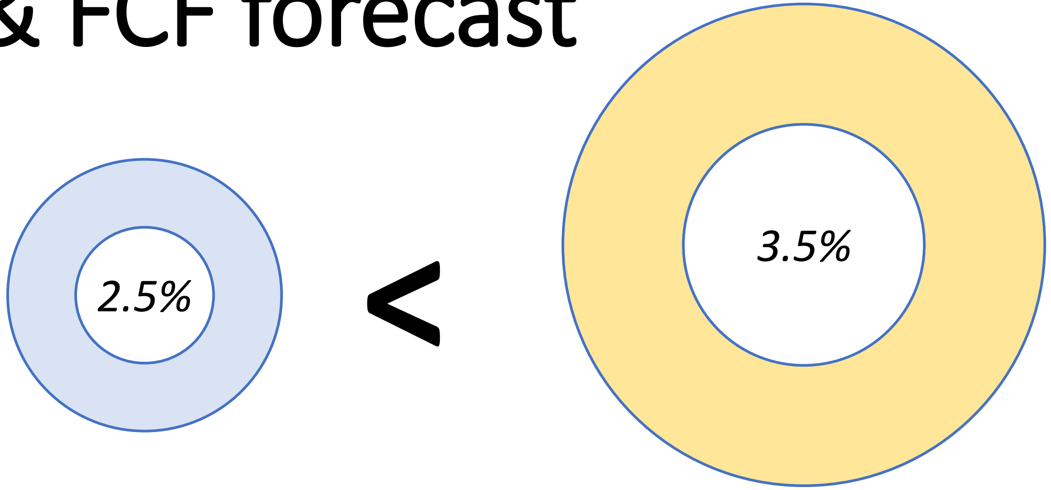
RISK FREE RATE + ASSET BETA * RISK PREMIUM = **WACC**

WACC

TVGR

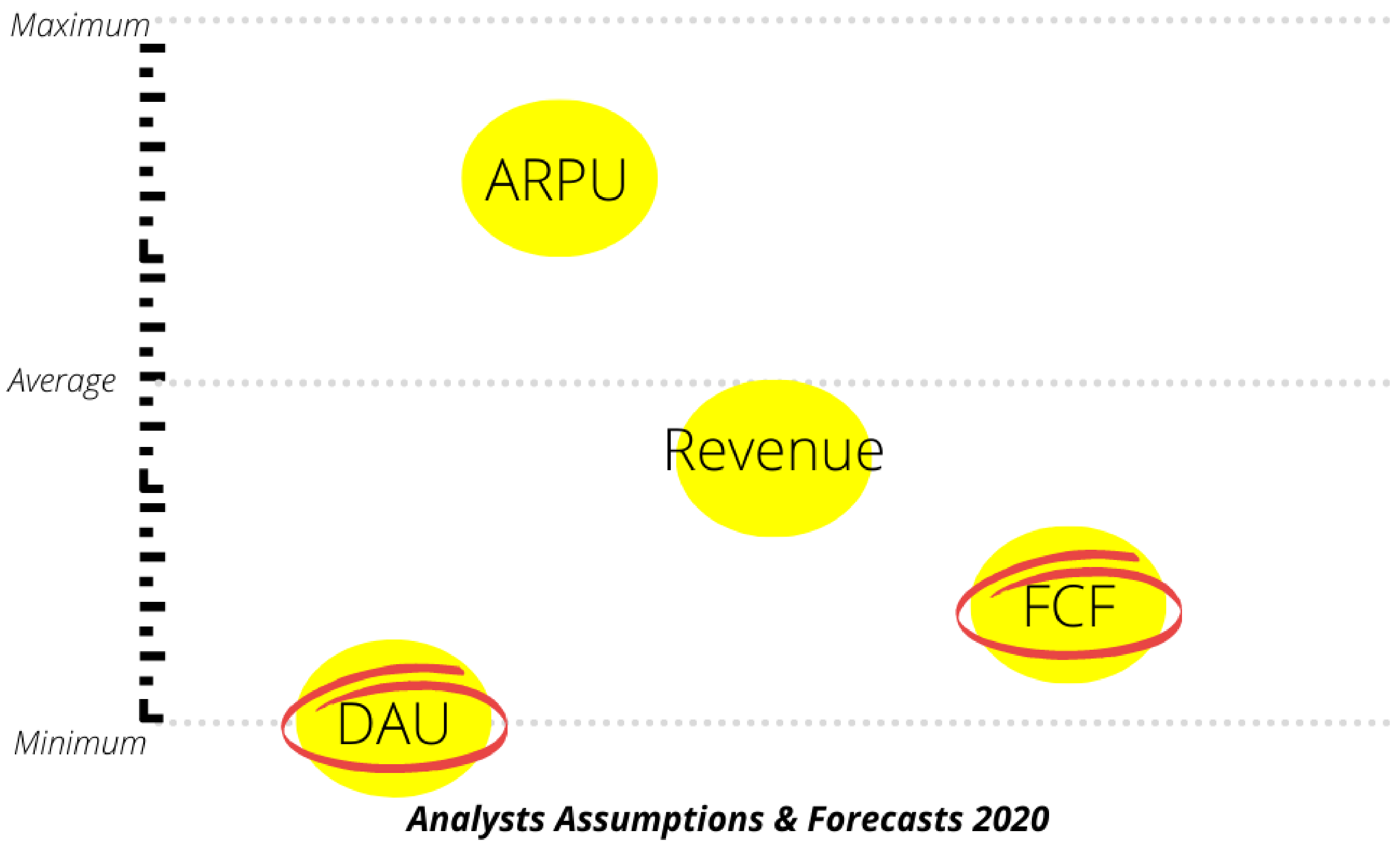
FCF Forecast

Nowak's DCF model analysis: WACC, TVGR & FCF forecast



- Principle that TVGR needs to be less than Historical GDP Growth Rate is not followed.
- However, firms have used comparable TVGR's in the wide range of *3% - 6%*
- Hence, this estimate seems reasonable because of the nature of the internet based stocks and Snap's ongoing growth phase.

Nowak's DCF model analysis: WACC, TVGR & FCF forecast



Potential impact of Snap's Spectacle **ignored** *(laucnhed in 2016)*

DAU relatively **underestimated**

Hence FCF underestimated

Revenue estimates for 2020

DAU
daily average users

×

ARPU
average return per unit

=

Revenue

Estimation	DAU	ARPU	Revenue
Nowak	**236**	**20,72**	**4889,92**
Lead Managers	284	19,16	5355,68
Independent Firms	321	19,16	6042,22
Other Underwriters	301	17,92	5366,91

Min
4786

Max
6546

- When considering top line revenue, Nowak's revenue estimation is conservative, compared to rest of the analyst estimations.
- In the individual analyst estimation spectrum, which ranges from 4.78b – 6.55b, Nowak also positions close to bottom.

Recommendation Comparisons

- Nowak from Morgan Stanley had a $28 price target on the stock and an overweight recommendation on Snap Inc. based on DFC valuation model. On the opposite, Cantor Fitzgerald's Paulson valued Snap's target price to $18 with an underweight recommendation, using different valuation model. The IPO price was set at $17 and during the higher quiet period the share price ranged between $19 to $27. Based on the target prices, Nowak expects the returns of Snap Inc. to be greater than what Paulson by valuing Snap Inc.

- The recommendations of Nowak's and other analysts involved in the IPO were given after the IPO quiet period due to the SEC rules, whereas Paulson's and other analysts not involved in the IPO issued during the quiet period. Therefore, the recommendations were issued at different times of the IPO and two categories of analysts can be separated:

A

Analysts involved in the IPO, including Nowak representing Morgan Stanley as the lead underwriter, were well-informed of Snap Inc.'s business. Nowak's recommendation was based on the investigation, deep communication and thereafter the valuation of the company initial to the IPO. Hence, it can be expected them to be well-informed of Snap's financials and growth expectations. The underwriters were also paid fee of 2,5% of the amount raised in the offering, therefore being prone to bias and setting the target price higher. These analysts were clearly more optimistic of Snap. Most of the analysts gave an overweight buy recommendation with price targets ranging from $21 to $31. There were zero sell recommendations. Hence, it can be concluded that analysts involved in the IPO tend to exaggerate target prices and may raise the issue of conflict of interest and bias. Also, the higher share prices during the quiet period may have affected the underwriters' analysis as the IPO price was lower.

Recommendation comparisons (cont'd)

B The independent analysts with access to public information only, including Paulson, were clearly more critical of Snap.
The recommendations ranged between $ 10 to $ 30 price targets with only 2 buy recommendations out of 17, and 7 hold and 7 sell recommendations.
Paulson's underweight recommendation was issued based on concerns about Snap's operational problems (weak business model, untested management team, slowing growth) and the threat from larger rivals. However, it must be noted that independent analyst firms have to depend on public information only, therefore resulting in more conservative valuations. Paulson was therefore in a weaker position to value Snap Inc. compared to Nowak with less information, however with less risk to conflict of interest.

- Further notable difference is also the use of valuation methods. The DCF valuation model used by Nowak is sensitive to manipulation of the key inputs such as the WACC or TVGR. In Nowak's valuation, the free cash flow is forecasted for 10 years using WACC of 9.7 % as a discount rate and perpetual growth rate of 3.5%. Compared to other analyst valuation assumptions Nowak's discount rate of 9,7% was considerably low as compared to others the WACC's were mostly ranging from above 10% to 18%. Therefore, Nowak's valuation is prone to calculation errors. Paulson also criticizes Snap's valuation numbers and especially return of investment ROI and other independent analysts are also concerned about the riskiness of investing to Snap's shares

DCF Valuation

- Expected free cash flow ($ millions)
  - WACC = 11.7%
  - Terminal growth rate = 3.5%

Year	2017	2018	2019	2020	2021	2022	2023	2024	2025
FCF	-1186	-1093	-737	-243	818	1831	2958	3390	4054
PV	-1062	-876	-528	-156	470	942	1363	1398	1497

Year	2026 – (Terminal Value)
FCF	55166
PV	20363

Terminal Value = $\mathrm{FCF}_{2025} \times (1 + \mathrm{WACC}) \div (\mathrm{WACC} - \mathrm{Terminal\ Growth\ Rate})$
$= 4054 \times (1 + 11.7\%) \div (11.7\% - 3.5\%) = 55166$
PV of Terminal Value = $55166 \div (1 + 11.7\%)^9 = 20363$

- Enterprise value

PV of 2017 – 2025		PV of Terminal Value		Enterprise Value
3048	+	20363	=	23411

DCF Valuation (Cont'd)

- Value of equity

  Value of debt:

  - Snap was entirely debt-free after raising 8 rounds of equity capital totaling $2.6 billion
  - As of December 31, 2016, no amounts were outstanding under the new line of credit

Enterprise Value		Value of Debt		Value of Equity
23411	–	0	=	23411

- Share price

  Shares outstanding (1430 millions):

  - After the IPO, Snap had around 1.4 billion fully diluted shares outstanding
  - 30 million additional shares were issued by the underwriters

Value of Equity		Shares Outstanding		Share Price
23411	÷	1430	=	**$16.37**

Investment Recommendation

- Comparison with current price

Estimated Share Price		Previous Close (March 24, 2017)		Valuation
$16.37	<	$22.74	➡	Overvalued

- Sensitivity analysis

TGR \ WACC	10.7%	11.2%	11.7%	12.2%	12.7%
2.5%	18.03	16.48	14.85	13.66	12.59
3.0%	19.06	17.36	15.58	14.29	13.14
3.5%	20.24	18.35	16.40	14.99	13.75
4.0%	21.59	19.48	17.33	15.79	14.43
4.5%	23.16	20.78	18.38	16.68	15.19

- By doing the sensitivity analysis with higher WACC and different terminal growth rates, we have a price band of $12.59 to $23.16
- It is hard to reach the price target $28 that Nowak set

Recommendation: SELL

Thanks for listening,
any questions?