# Norges Handelshøyskole

## FIN11 Trading and Market Microstructure

Term paper

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# Making money with IPOs

FIN11 – Trading & Market Microstructure – Term paper

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# Abstract

This paper exhibits the way IPOs work and provides an analysis of Snap Inc.'s decision of going public. How does an IPO work and how can investing in an IPO be profitable? Two main approaches have been employed: the first part of the essay provides the reader with the theoretical aspects of the Initial Public Offering, while the second one takes advantage of the financial methods to carry out the Snap Inc. performance analysis.

Throughout the whole study financial articles, research papers and the Bloomberg Terminal have played a key role in deepening the topic, that in this essay obtained both a colloquial and a graphic mark. The results confirms that an IPO usually tends to underperform in the long-term in relation to the short-term. For this reason, investors should keep a short-term perspective when investing in IPOs.

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# 1. Introduction

After defining the theoretical concept of the Initial Public Offering and its connection with the performance of an economy, this paper shows the main advantages and disadvantages of going public. The following part discusses how an IPO works in practice. Once this is done, it is questioned whether or not it is interesting for investors to join an IPO. The answer is given by analyzing the difference between the initial and the long-run average returns and by outlining related concepts such as underperformance and underpricing.

Then, wondering who is willing to buy overpriced shares at the end of the first day, introduces the distinction between active and passive management. In the sixth chapter, the paper gets to a turning point: after describing Snap Inc. and the reasons that pushed the company to go public, it evaluates the firm's decision. Following up with the Snap Inc. case, the essay includes the financial analysis of the company in three different time spans: before, during and after the IPO. In the last part, it compares SNAP.N to the market, both on a monthly and a yearly basis, along with drawing conclusions focused on what is stated in the fifth chapter.

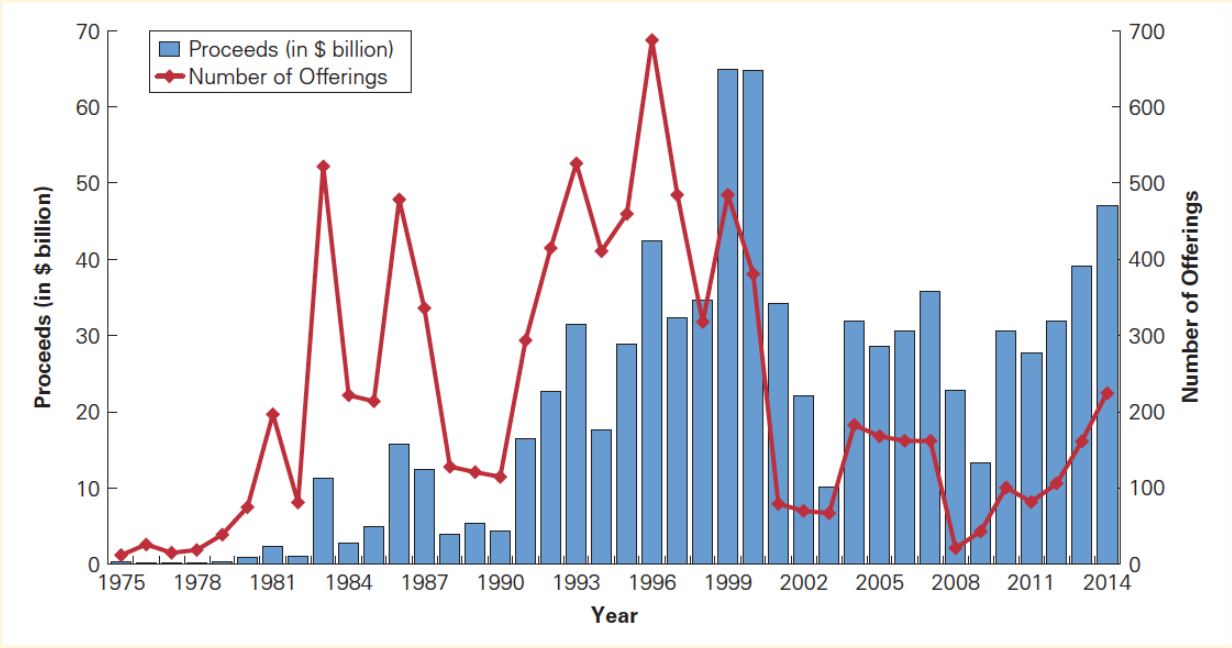
# 2. What is an IPO?

The IPO (Initial Public Offering) is the first sale of stock issued by a firm. Before this process, the company is said to be "privately held", meaning that early investors are the only owners. They can decide whether or not to sell their stock to potential buyers and very often the shares are distributed among a few people. The IPO allows both institutional and retail investors to purchase stock, enlarging the ownership of the now "public" firm. After the process, anyone will have the possibility to trade its shares since the stock will be traded in the Stock Exchange (Financial Times, n.d.).

The number of IPOs in a given period is usually considered as an indicator of the stock market's and economy's health. During an economic downturn people expect a drop in the number of public offerings, whereas a growing number of companies going public is commonly associated with increasing wealth. Because of this, when looking at the evolution of both the proceeds and the number of offerings over time, we would expect cyclical trends occurring. These patterns are noticeable in ***Figure 1*** (Berk & DeMarzo, 2016). It is possible to recognize a succession of peaks and valleys, showing that years with several IPOs and large proceeds follow others with a low frequency and vice-versa. However, as the authors outlined, "What is surprising is the magnitude of the swings. It is very difficult to believe that the availability of growth opportunities and the need for capital changed so drastically between 2000 and 2003 as to cause a decline of more than 75% in the dollar

volume of new issues. It appears that the number of IPOs is not solely driven by the demand for capital. Sometimes firms and investors seem to favor IPOs; at other times firms appear to rely on alternative sources of capital and financial economists are not sure why" (Berk & DeMarzo, 2016)

***Figure 1** – Number of IPOs and proceeds over time (1975-2014)*




The graph shows the number of IPOs and the annual cumulative dollar volume of shares offered. The number and volume of IPOs reached a peak in the late 1990s and is highly cyclical.

*Source*: Adapted courtesy of Jay R. Ritter from "Initial Public Offerings: Tables Updated through 2014" (bear.warrington.ufl.edu/ritter/).

# 3. The advantages and disadvantages of going public

At this point, someone might wonder: why should a company go public? Which are the advantages and disadvantages of an IPO? The Pros and Cons of listing a firm in the Stock Exchange are numerous, therefore the following table (***Table 1***) illustrates only the main ones that might be helpful to develop the upcoming Snap Inc. analysis.

***Table 1** – Advantages and disadvantages of going public*

| Advantages | Disadvantages |
|---|---|
| Increased capital | Loss of control |
| Higher valuation and better creditworthiness | Loss of privacy |
| Better reputation and reassurance | Significant costs |
| Attracting skilled management and employees | Performance pressure |

As already stated, the main purpose of going public is increasing the capital. The advantage of being listed in the stock market is given by the fact that investors can be found at any time. Most of them do not want to be locked in a risky business for too long, thus being public allows traders to buy/sell shares whenever they want, and it gives the company the opportunity to find financiers constantly. This is why public firms have a higher probability to gather funds for their scopes rather than the private ones (Juneja, n.d.). Listed companies can also benefit from better valuations provided by investors and creditors. According to Juneja, the competition (especially regarding successful firms), makes the share price rise, bringing gains to both early investors and promoters. Moreover, the competition among lenders results in better loan conditions for the listed company (Röell, 1996). Going public, as Roell states, has also reputational effects, more precisely, by joining the crowd of the most famous firms, a company might take advantage of this increased prestige. The IPO in itself could represent an effective branding event that drives the attention to products and aspects previously unknown. In addition, stakeholders (including suppliers and employees) start looking at the company more respectfully. "A robust equity price in the aftermarket reassures suppliers that they can safely give trade credit, workers that they can expect a fairly stable job, and customers that the product will be supported in the aftermath of their purchase. Thus, counterparties are spared the time and expense of checking the firm's staying power and creditworthiness, and this should enhance its position in the marketplace." (Röell).

Finally, Röell says, by going public a company could attract a more skilled management. Why? Because its compensation will be either related to the performance in the marketplace or composed of stock ownership (ESOPs). Particularly, this last option allows the employees to cash in after the IPO and the company to save money reducing the wages.

Even though an IPO brings several advantages, it is not indisputable that they will outweigh the disadvantages. Diluting the ownership definitely weakens the early investors, who will not have the same power. They will also expose themselves to several risks such as hostile takeovers, that might be undertaken by the main competitors, damaging the future of the company (loss of control).
Then, the loss of privacy is not negligible: by getting listed, companies adapt to specific legal criteria that requires them to disclose financial results periodically. "Thus, going public may make a company lose its competitive edge especially if its edge is based on withholding certain information from their shareholders." (Juneja). Additionally, the IPO process implies huge legal, accounting and marketing cost, many of which are ongoing. For example, the need of providing quarterly results, which forces a company to employ several experts who keep the costs constantly high (Motley Fool Staff, n.d.). Lastly, going public could create an enormous pressure on the company because of the investors' demands. Some firms would rather focus on long-term growth strategies, but the low tolerance of the

market regarding the periodical performances might drive them to less effective short-sighted plans that stick to the investors' expectations.

# 4. IPOs in practice

This chapter will focus on how an IPO works in practice. The focus will be on the process of an IPO, which can be divided into the following five stages:

1. Selection of investment banks
2. Underwriting process
3. Pricing
4. Stabilization
5. Transition

### Selection of a bank

The IPO process starts with the issuing firm choosing investment banks who can advise and assist the company during the whole process of going public (Corporate Finance Institute, u.d.).
Ideally, the company is well known to the investment banks. This provides an advantage of the investment banks not only having knowledge about the company itself, but also about the industry in which it performs.
Also, the ability to position the company is really important when selecting investment banks. Do the banks compare the company to other high valued companies, or would it place the company in a lower valued segment?
Another important factor is the reputation and experiences of the investment banks and its overall quality. It is important to check the number of IPOs the bank has done in the past three years and to search for information whether these IPOs were a success or not (Orrick, u.d.).

### Underwriting process

After selecting the investment banks, the underwriting process starts. The underwriters represent the group of investment banks that were chosen. They earn the gross spread, which can be seen as a discount for which the underwriter can buy the shares from the issuing firm. Usually, the gross spread is 7% of the total value of the shares (Corporate Finance Institute, u.d.).
There are three common types of underwriting: Bought deals, firm commitment deals and best effort deals. There is a bought deal if the underwriter buys all the shares the issuing company wants to sell to the public. The difference between the price the underwriter pays for the shares and the price the

public buys the shares for from the underwriter is called the spread which is a compensation for taking the risk of buying the complete stock form the issuer while not being sure whether they can resell all of it to the public for an equal or preferably higher price (Lewin, 2015). In a firm commitment deal, the underwriter makes a prospectus containing details about the issue and the issuer itself, the financial situation and ownership, and about the size of the IPO. In the firm commitment deal, the underwriter buys all the shares of the issue. However, if the market conditions decline, it can cancel the issue (Ari Pandes, 2010). A best effort deal means that the underwriter does not necessarily buy any of the stock and promises the issuer to try to sell the shares to the public for the highest price possible. Because the underwriter is taking less risk in this case, the compensation will be much lower than in a bought deal or a firm commitment deal (Barry, Muscarella, & Vetsuypens, 1990).

### Pricing

In the valuation process, there is a contradiction between the issuing firm and the interested investors. The issuing firm aims for a maximum price per share, while the investors aim for a minimum price per share. Investment banks work as intermediary in this process, trying to find a price that suits both the issuing firm and the investors (Sahoo & Prabina, 2010). The pricing of the shares of the issuing firm is dependent of its value. This is estimated by using several valuation methods and combining results in the end (Roosenboom, 2007). The main methods being used by investment banks to value the issuing firm are financial modeling, comparable company analysis and precedent transaction analysis. "By combining these three methods, bankers are able to triangulate on what they think is a reasonable value an investor would be willing to pay for the business" (Corporate Finance Institute, u.d.).

### Stabilization

After the IPO has been taken place, the underwriters are usually stabilizing the price of the shares for a various number of days or weeks. During this period of price-stabilizing, underwriters can influence the price of the shares. Often, the underwriter sells 115 percent of the shares at the offering, which is called an overallotment option. In case the stock price goes up, it can use the overallotment option to cover the short position. In case the stock price goes down, it can use the overallotment option to buy stocks in the market (Ellis, Michaely, & O`Hara, 2002).

**Transition**

25 days after the IPO, the shares will be transitioned to the market competition. Underwriters can now evaluate their valuation of the firm and its share prices. After all, they can provide the new public company with estimates of their earnings (Ellis, Michaely, & O`Hara, 2002).

# 5. Investing in IPOs

Is it interesting for investors to join an IPO? Research by Carter, Dark and Singh (2002) shows that the average Market-adjusted initial return, based on 2292 IPOs issued between 1979 and 1991, is 8.08 percent ***(Figure 2)***. This average initial return is based on the first closing price available, so the first end-of-the-day share price after the IPO. However, when looking at the results of the Market-adjusted long-run return in the same journal, it seems to be less interesting for investors to join the IPO. Analyzing the same 2292 IPOs issued between 1979 and 1991, the average long-run return based on the share price 765 days after the IPO turns out to be -19.92 percent (Carter, Dark, & Singh, 2002) ***(Figure 3)***.

*Figure 2*

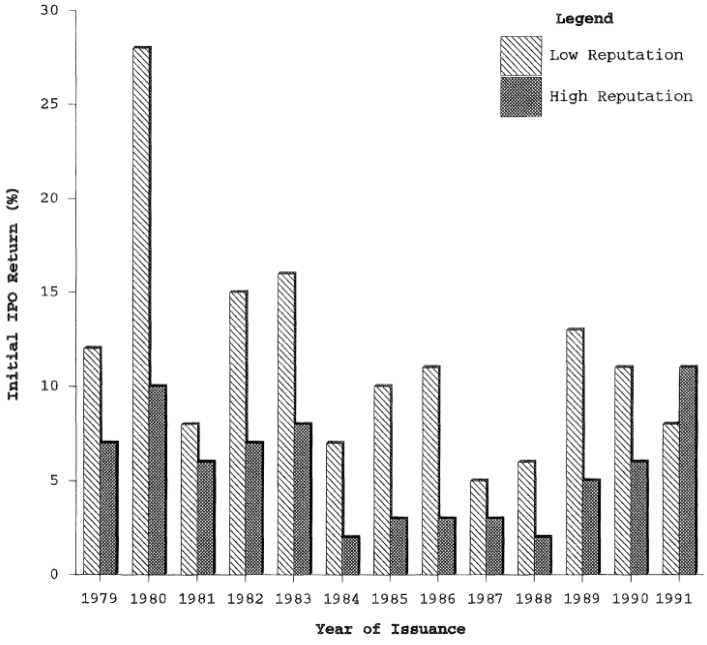
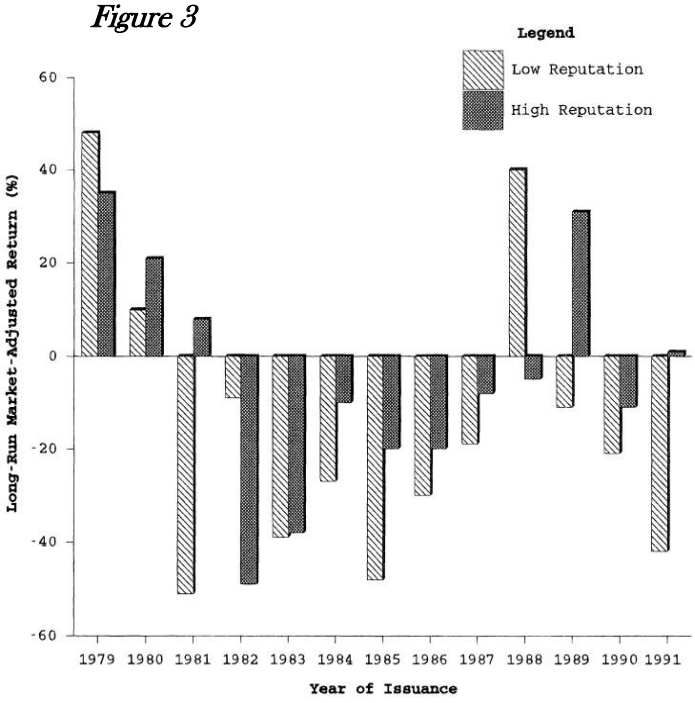



*Figure 3*




There is more evidence that shows the long-run underperformance of IPOs in international markets. According to research of Ritter (1991), the average IPO between 1975 and 1984 underperformed firms of comparable size operating in the same industry by nearly 29 percent in three years. Another research by Loughran and Ritter (1995) concludes that companies going public

between 1970 and 1990 had an average return of 5 percent for the next five years. However, they also state that companies comparable to the firms going public, had an average return of 12 percent during these five years. According to Ma & Shen (2003), there are three explanations for the long-run underperformance of IPOs. The first one is that investors have different expectations about the value of the issuing firm. Only the most optimistic investors will buy the IPO and the first trading day`s price will be set according to their valuation. "As the divergence in opinion about the firm's value becomes smaller, the valuation of the most optimistic investors and hence the trading price will be lowered, resulting in long-run underperformance" (Ma & Shen, 2003). The second explanation is that investors become extremely positive about the value of a firm during the IPO. This will lead to the order book being oversubscribed, which means that the demand for the firms' shares is bigger than its supply of shares. The result of this is that the price of the stock will be pushed higher than its fundamental value during the IPO. The overvaluation will result in a decrease of the stock price afterwards. Their last reason why IPOs are underperforming in the years after the IPO is because of "window dressing". Window dressing is the process of firms manipulating the accounting numbers of the issuing firm before the IPO. This is done in order for them to look more interesting to investors before the public offering. However, after going public the investors will get to know the true value of the firm, resulting in a lower stock price (Ma & Shen, 2003).

Investing in IPOs on a short-term basis seems to be much more profitable than investing in IPOs on a long-term basis. The main reason for the average positive return on the first trading day of an IPO is "underpricing", which often results in an upward price movement (Espen Eckbo, 2008). Underpricing is the process of the underwriters offering shares at a discount price, compared to their fundamental value. The reason for this is to be sure that all the shares will be sold to the public. Although this sounds as a reasonable argument, the result is that the issuing firm cannot receive the full value of its shares (Corporate Finance Institute, u.d.). According to Espen Eckbo, the underpricing discount by underwriters was more than 20 percent on average between 1980 and 1990.

Investing in an IPO and selling your shares directly during the first trading day seems to be very interesting. However, since trading is a zero-sum game, for every "winner" there needs to be a "loser". No trader can obtain a positive profit, without another trader losing money (Harris, 1993). Keeping this in mind, and concerning the fact that many traders use historical performances to predict future returns, the question is why it is possible that there are still people willing to buy shares for a higher price during or at the end of the first trading day after the IPO?

Pedersen (2018) states that there is a difference between active and passive management. Passive management is the process of an investor not trading on a regularly basis. Active management is the opposite, investors who do trade on a regularly basis. The article by Pedersen first supposes that

passive investors do not participate in IPOs, since they are not active in the primary market. The result is that only the group of active investors buys the shares offered at a discount in the IPO. They will sell their shares to the passive investors in the aftermarket, who want to restore their market-cap weighting after an IPO. Passive investors are not stupid and knowing this, they will of course join the IPO and try to buy shares at a discount as well. This brings us to the next situation in which Pedersen makes the assumption that both passive and active investors will invest in an IPO. However, passive investors will not do any research and they will invest in every IPO for the amount of shares they need in order restore their portfolio. In contrast, the active investors will do research and only invest in IPOs that seem to be priced cheaply according to their analysis and valuation. What happens is that the underpriced IPOs will be oversubscribed, meaning that there are more orders than the number of shares available. As a result, shares need to be divided, meaning that every investor gets less shares than ordered. As said before, the price of the underpriced value will increase in the aftermarket and this is the moment that the active investors can sell their shares in order to make profit. They will sell their shares to the passive investors, seeking to get their market-cap weighting correct, because they were not able to get all the shares, they needed to do this as the active investors oversubscribed the order book (Pedersen, 2018).

To conclude the investing opportunities in IPOs, the chance to be profitable turns out to be high when investing in an IPO on a short-term basis, assuming to buy shares in an IPO and selling them in the aftermarket during the first trading day. Pedersen draws the conclusion that the return active investors earn during an IPO is a compensation for their efforts in valuing the issuing firms and doing financial analysis to find out which IPOs are underpriced.

# 6. Practical example

## 6.1 What is Snap Inc.?

Snap Inc. is an American camera company founded in 2010 by today's CEO and CTO Evan Spiegel and Robert Murphy (Bloomberg, 2018). At the time the co-founders were students at Stanford University, where they first introduced their most famous invention, Snapchat, during a design class in April 2011.

The app went formally online in the following September. Snapchat is a camera application that allows people to communicate with each other through short images and videos. These have a duration of 1-10 seconds and are automatically destroyed after a user sends them to its contacts. This

grants individuals more privacy and relieves them from the burden of being worried about possible personal life stories leaks, which is nowadays one of the biggest concerns among young people.

## 6.2 Why did Snap Inc. decide to go public?

We see Snap Inc. as a group that, back to the end of December 2018, showed the intention to go public. With the final decision of going public, these are the reasons that may have led to:

- **An increase of Capital** - as we will see afterward, Snap Inc. raised $2.45 billion selling to the public investors their shares. This capital will be used to develop the group's affiliations regarding products and services. We can stand out their social network "Snapchat" that will see some considerable improvements, to become a more attractive network with R&D and advertising;
- **Brand awareness** – with the expected publicity of Snap's products for the IPO's potential customers, the group gets "free" marketing and increases their reputation. This brings a high level of curiosity from the consumers and investors about the company and, respectively, their products and services (as seen in *graph 6*);
- **Improve internal talent** - to follow this need for improvements, the group will need more capable people in charge of the company's route. The general costs increased (see *graph 8*) more than 4 times between 2016 and 2017;

## 6.3 Evaluation of Snap Inc.'s IPO

In our opinion, the company made the right decision in going public. In particular, it has gained new essential resources to compete with other tech giants like Facebook and Instagram. In this industry, it is essential to expand quickly and obtain the largest possible market share, and without new additional funds, this is hard to achieve.

However, one very particular feature we can criticize of Snap Inc.'s IPO. This is how the company dealt with it in the first place (Tully, 2017). As we said in the second paragraph of Chapter 6, Snap raised $2.45bn from the IPO. Nonetheless, the company could have done better. They sold their shares to the underwriters for $17 each with a firm commitment deal. An excessively low price, since during the IPO the market valued the shares for approximately $25 each. This means that the underwriters made a profit of $1.1bn in just one day. In fact, of the overall two hundred million shares issued, only 55 million were sold to institutions that pledged not to sell for at least a year, while

the other 145 million shares were pre-sold to the other underwriters at $17, that as said above then sold them again for approximately $25 each (Tully, 2017). The $1.1bn inequality could have made an enormous difference in Snap Inc. cash, basically offsetting the losses of 2017 for one third. Although it is understandable that investment banks have in their interest to buy shares for a low price and that achieving a superior performance in the IPO brings fame and prestige to the company, this deal seems disproportionate. Indeed, in hindsight, numerous considerations regarding the real value of Snap Inc. can be made, but what matters is that at the time the market valued the shares for 25$ each, and the company could have taken more significant benefits from it.

## 6.4 Snap Inc. Data Analysis (financial and users)

The start-up Snapchat Inc. started to create some impact and notoriety when, back to 2013, Mark Zuckerberg (founder of Facebook and one of the most influential person in the tech world) offered to Snapchat founder Evan Spiegel nearly $3 billion to buy the app. Spiegel declined, and since that time Zuckerberg, along with other tech magnates, is trying to copy Snapchat's most popular features, one after another.

On the 3rd quarter of 2016, Instagram (already owned by Facebook) launches the first copied feature of Snapchat: the stories. In this way showing what was coming for the future. However, Snap Inc. reported year by year some considerable financial results and increase of market share against the expectations in the tech market. In the EoY of 2016, the renamed Snap Inc. presented some significant financial improvements, overwhelming the best market predictions (see ***graphs 6, 7, 8 and 9***):

- **Revenues** of $404.5 million in 2016 (98% from advertising) and a growth rate of 16.98% compared to 2015;
- **Average revenue per user** of $1.06 compared to $4.83 of Facebook (only between September and December of 2016);
- **Daily Active User** in the 4th quarter of 2016 showed an increase of 29.50% compared to the first of the same year (see ***graph 6***);
- An increase of **Investments** and developments for the group with Net Losses close to $515.0 million (an increase of 38% compared the total registered in 2015) and total costs of $925 million (rise of 110%).

Following these, the news started to report the possibility of an IPO. The recommendation prices from some of the leading banks in Wall Street may reach values of $14-$16, after the bank's valuation

of Snap Inc. A few weeks after, the IPO's future shares showed "enough demand to push the price of its initial public offering higher than expected (...)" since "(...) it has received orders for 10 times as many shares as it has for sale (...)" (Markets Insider, 2017). With this, Snap Inc. board members decided to play safe and only increase the share price of the IPO to $17, offering 200,000,000 shares to a total offering size of $3,400,000,000. The intermediates (underwriters) of this operation were announced in the group's website: "(...) Morgan Stanley, Goldman, Sachs & Co., J.P. Morgan, Deutsche Bank Securities, Barclays, Credit Suisse and Allen & Company LLC (...)" (Snap Inc. Website - Investors, 2017).

In only 15 days, the change of the IPO's price brings the group an offering valuation in about $0.2 billion and the group's valuation change from $26 billion to $29 billion. The shares are non-voting ones, meaning that the shares do not reserve the right to vote essential matters for the group due to the founder E. Spiegel and the co-founder Bobby Murphy intention to keep decisions "private" (control of 44%). The decision integrates the risk factors of the filing.

### The IPO day

On the 2nd March of 2017, the operation is anticipated as the biggest tech IPO in nearly 2 years. The first trading day ends with a share price of $24.48 (rise of 44% compared to $17) varying between $23.50 and $26.05. The day after it saw an increase of 10% to the previous session ending with $27.00. This may be explained by the high demand demonstrated before (from the investors perspective an appealing stock) and the participation from the media firm NBCUniversal that "disclosed a $500m stake" (The Guardian, 2017).

Accounts made, the group made $2.6 billion and the intermediates nearly $800 million (a valuation twice Facebook and 4 times Twitter, according to Bloomberg). The money was therefore mainly used to invest in R&D (where we see a significant increase from 2016 to 2017), since the total costs increased and the Net Income more than duplicated negatively (see *graph 7, 8 and 9*).

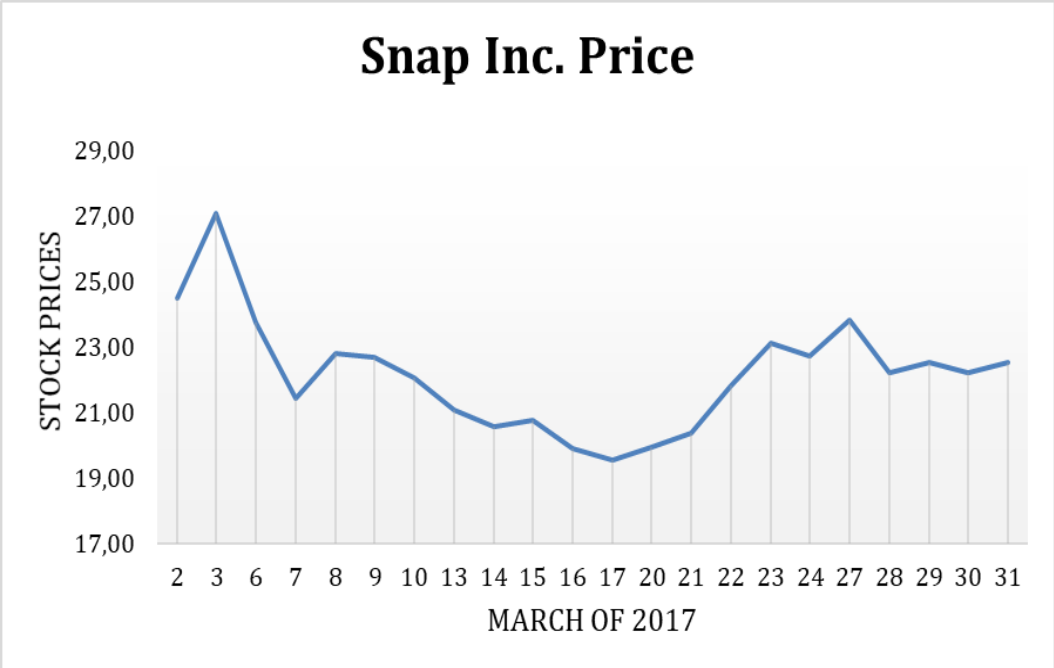
The investors attached a price tag of nearly $30 billion to the group and Wall Street indices were recommending "Buy" positions to the investors - advice of buying the shares in the short-term. The things were, apparently, going in the right way to Snap Inc. However, and like in every successful story, a few critics remained skeptical. The general concerns were (Management Study Guide, n.d.):

- Young and inconstant target that quickly changes from one company to another and, consequently, a reduction of external intentions to advertise in their social network;
- No patents or copyrights of their main features, bringing a high level of "easy copying" from the competitors as seen before with the Instagram example;

- High number of "Day Traders", which brings shareholders characterized by "inexperience" or sentimental behavior that only look forward to "get rich fast, reflecting the false health of Snap Inc.;
- Considerable high volatility, since the share price rose 44% and 10% in the first two days of trading, despite major investors prefer stable stocks;
- "popular" instead of "profitable";
- No power reserved to the shareholders with the sale of non-voting shares and
- Low number of daily active users compared to major competitors such as Facebook (including Instagram) and Twitter, which would bring an idea of false superiority.

Two weeks after, the share price was already falling and representing a price of $21 (see ***graph 4***). This occurred after the initial euphoria, large amount of day traders and consecutive notes from analysts and banks that affirm that the "stock is going to be incredibly volatile because there is so little information about the companies track record and it is difficult to extrapolate to the future" (The Washington Journal, 2017). In the same month, Facebook launches the "Facebook Stories", following Instagram update back to 2016: the share price decreases in around 11.60% to end with $20.19.

***Graph 4*** *– Share price during the first month after the IPO*

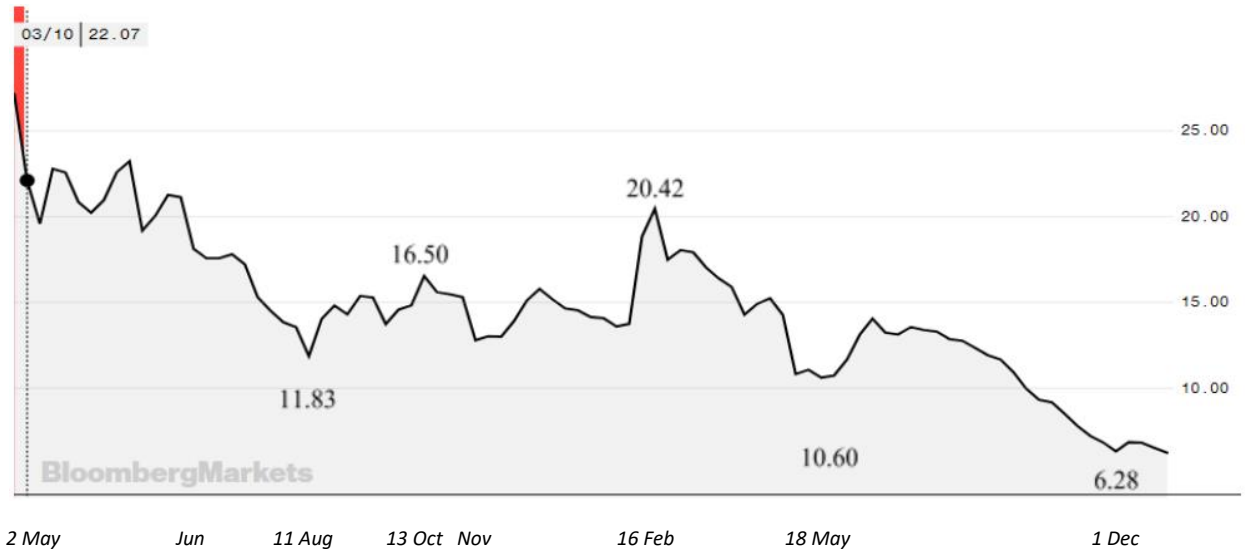



The story continues and in June of 2017, the CitiGroup downgrades Snap Inc. price/valuation and shareholder position in the market from "buy" to "sell". In July of the same year, Morgan Stanley

(one of the IPO's underwriters) reports a note where it explains that they made a "mistake about Snap Inc. capability to innovate and develop the business" and "Instagram became more aggressive competing for Snap's advertisement" (Bloomberg, 2017). These two negative events brought to Snap a decrease of nearly $10 in their share price in August of 2017 (see ***graph 5***).

From August to mid of October, Snap shares saw an increase of $4.67. This comes after some positive recommendation from the top banks, ending with Credit Suisse analyst Stephen Ju raising his prediction Snap's price to $20, according to the "increased user engagement on the company's flagship Snapchat messaging platform" (Zacks, 2017). Also, the Wall Street researcher Piper Jaffray "published a favorable note" and "its analysts did reveal data suggesting that Snap is crushing its competition in a key age category" (Recode, 2017).

***Graph 5*** - Share price of Snap Inc. since the IPO's date



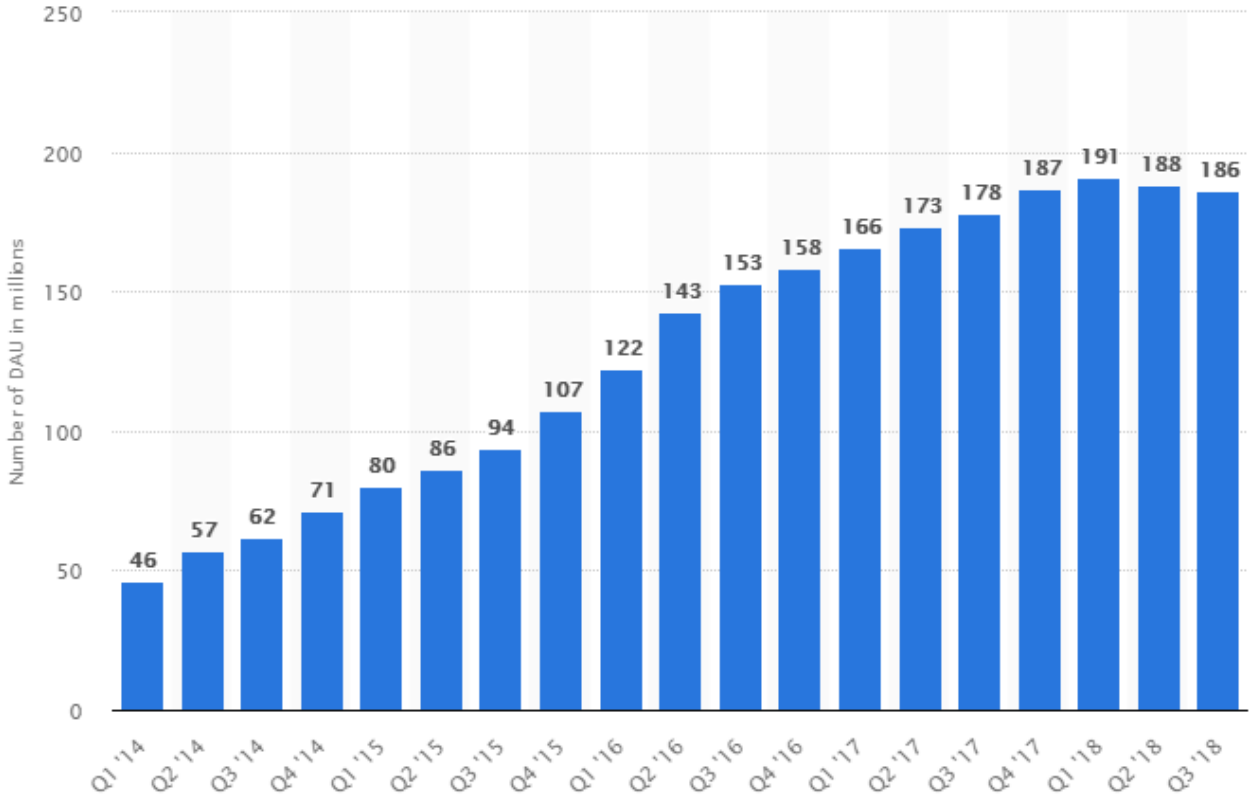

*Source:* ***Bloomberg***

Following ***graph 5***, we can see another fall until the end of November 2017 to end with a price of $12.97 (previously $16.50) because of lower earnings in 3rd quarter compared to the market predictions: the net losses reached $443 million ($319 million compared to the same period in 2016) and losses of $0.36, but the market predicted $0.33 (S&P Global Market Intelligence, 2017). Another reason is the $39.9 million in charges related to excess inventory and cancellations of purchase commitments of the new Spectacles. The last period of 2017 ends with a rise in the price due to Snap plans to "redesign the messaging application to make it easier to use" (CNN Business, 2017).

A new year arrives and in the first two weeks of February the price rises $6.70 because of the reported results that beat Wall Street's estimates: sales climbed to $286 million in the fourth quarter of 2017

(increase of 72% from the previous year) and added 8.9 million daily active users (see ***graph 6***) - CNN, 2018. Because of laying off 100 engineers and earning/users miss against the estimates, Snap Inc. reported revenues of $230,7 million ($14.2 less million) and reduction of 19% compared to the Q4 of 2017. The share price in the end of March 2018 shows $10.60 (CNN and Markets Insider, 2018) - see ***graph 5***.

***Graph 6*** – *Number of active Snapchat users per 4 months*



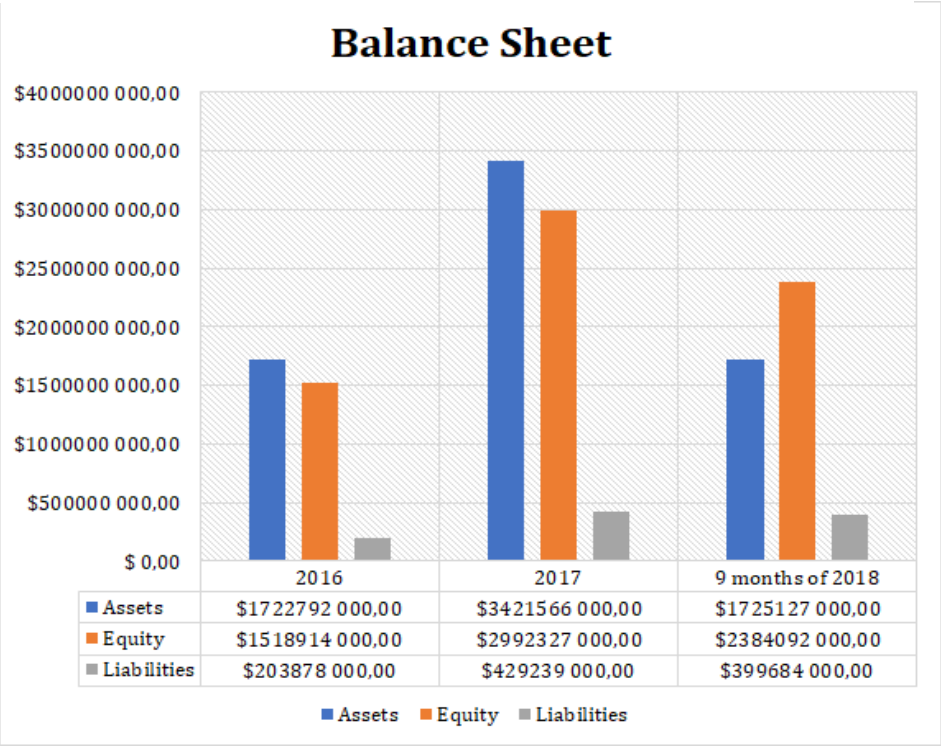

*Source:* ***Statista***

Despite several attempts to develop and update their services/products, the mid of November brings another setback. An investigation is reported by the media concerning the official prospect: allegedly, Snap Inc. reported incomplete information before the IPO (Jornal Negócios, 2018). The year of 2018 nearly ends with an average minimum historical price of $6.30.

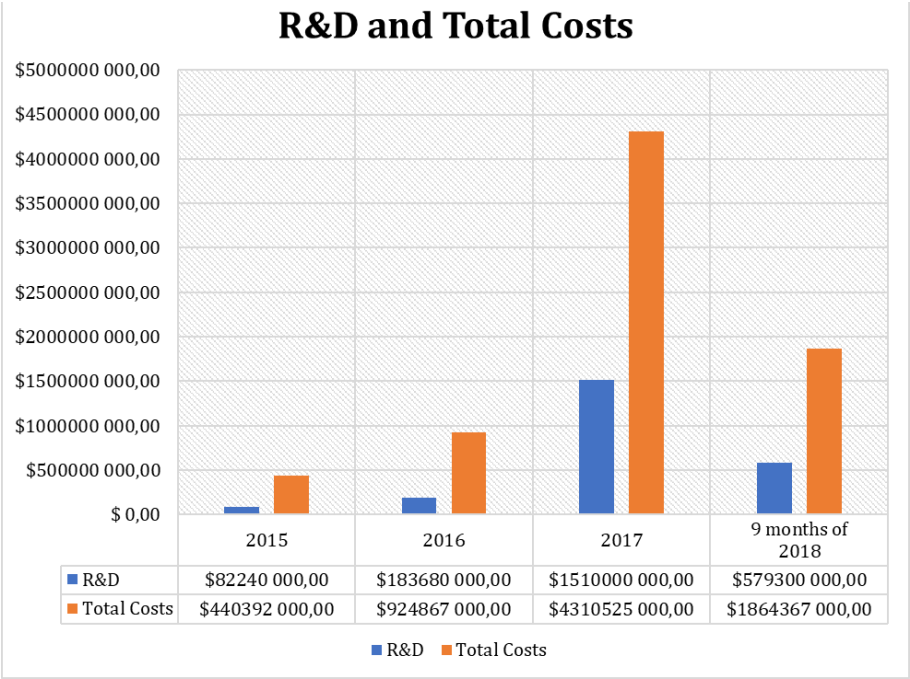
On the investors' perspective, Jim Cramer advices to the non-existence of a bargain regarding the price. He says that "Snap's growth is evaporating before our very eyes" since "the most worrisome thing about the Snapchat parent is its cash generation" (CNBC, 2018).

*(**NOTE:** See **graphs 7, 8 and 9** to the generalized Snap Inc. financial data)*

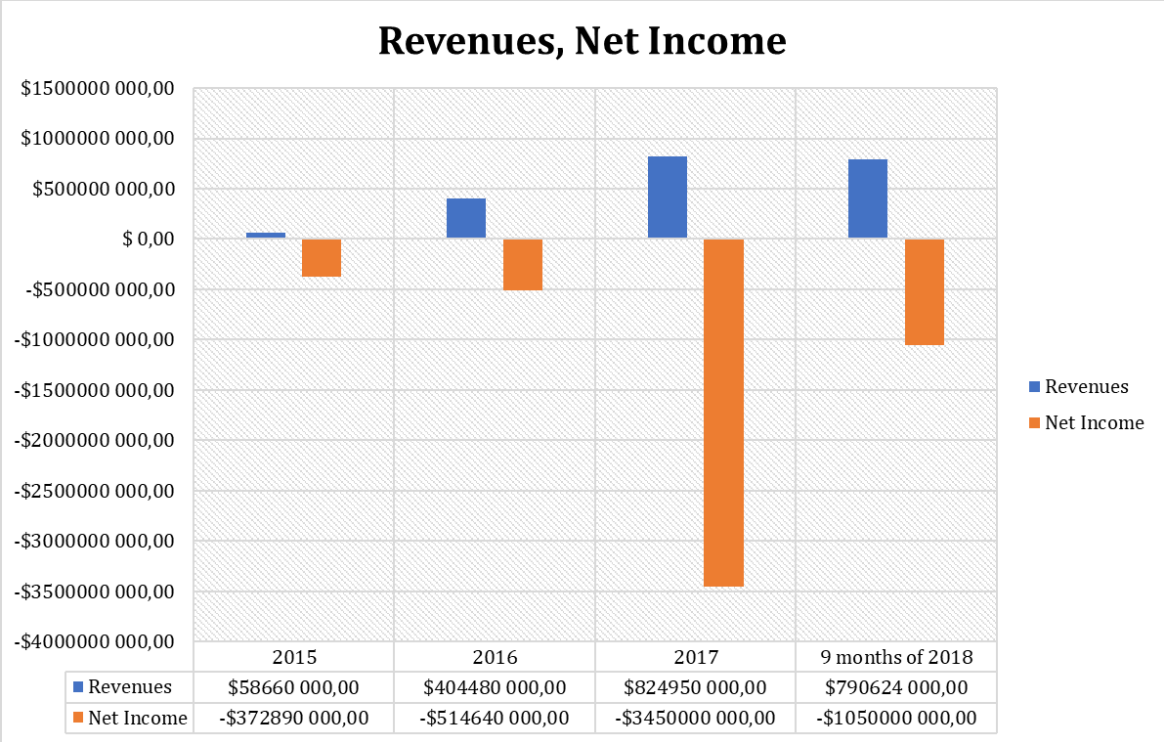
*Graph 7 – Balance Sheet of Snap Inc. for 2016, 2017 and Q1 to Q3 of*




*Graph 8 – R&D and Total Costs of Snap Inc. for 2016, 2017 and Q1 to Q3 of 2018*



*Graph 9 – Revenues and Net Income of Snap Inc. for 2016, 2017 and Q1 to Q3*




| | 2015 | 2016 | 2017 | 9 months of 2018 |
|---|---|---|---|---|
| Revenues | $58660 000,00 | $404480 000,00 | $824950 000,00 | $790624 000,00 |
| Net Income | -$372890 000,00 | -$514640 000,00 | -$3450000 000,00 | -$1050000 000,00 |

## 6.5 Snap Inc. vs market

In this section, we will analyze and compare the trend of SNAP.N (Snap Inc.'s listing name) relatively to the S&P 500 index (1). We decided to utilize S&P 500 as a benchmark since in this index are included the major 500 companies of the NYSE, ranked by market capitalization. At the time of the IPO, the company should have been part of this group, but the border of S&P Dow Jones Indices LLC decided to exclude it from the index companies that issue different classes of shares, among which is Snap Inc. Nonetheless, this index is still extremely meaningful and representative, given the similarities by market capitalization and size that Snap Inc. shares with the other companies, part of the S&P 500.

The analysis is carried out from the second of March, the day of SNAP.N's IPO. In the first graph (see ***figure 10***, based on Exhibit 1 in Appendix) it is possible to see the first-month trend of SNAP and the market. The former outperformed the latter only on the first two days when it obtained a return of 44% and 10.7% compared to a market return of -0.59% and 0,05% respectively. Nonetheless, given the massive size of the first-day return (historically second only two Twitter performance of 72.84% during an IPO), it is possible to see how the cumulative return given by SNAP.N is continuously above the cumulative market return for the first month. This means that an

investor that bought its shares during the IPO would have made a perfect deal, also if he afterward sold the shares at the end of the month when he would have obtained a +38.9% cumulative return.

*Figure 10 - First month daily return*

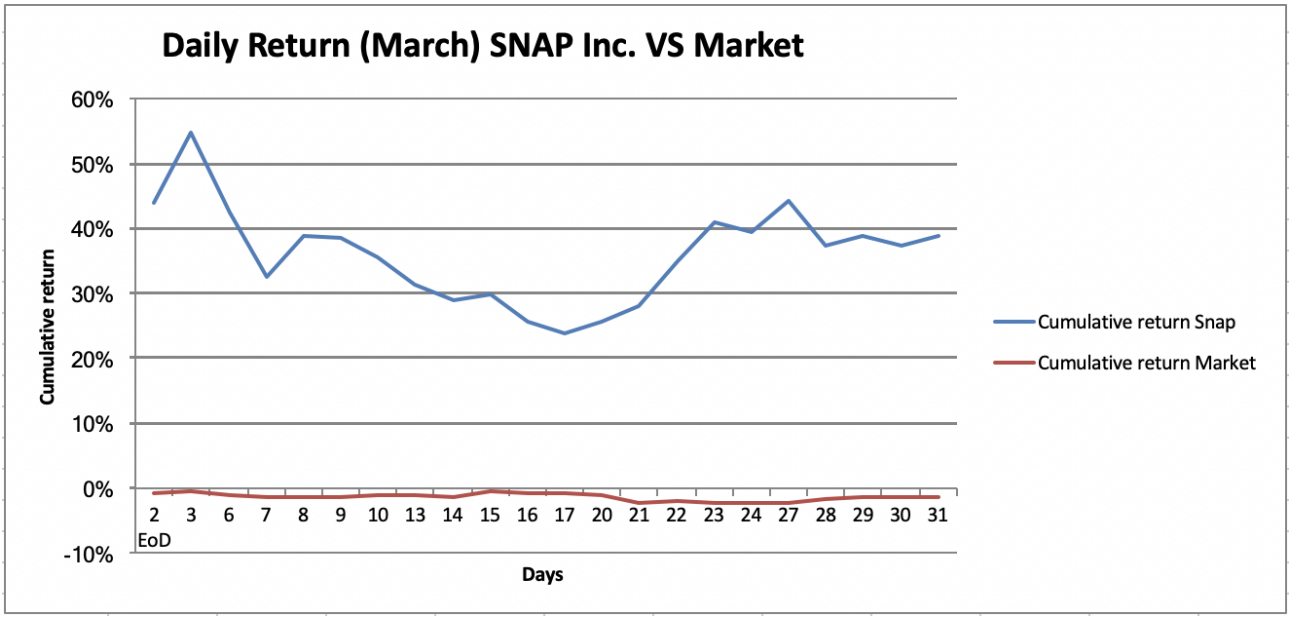
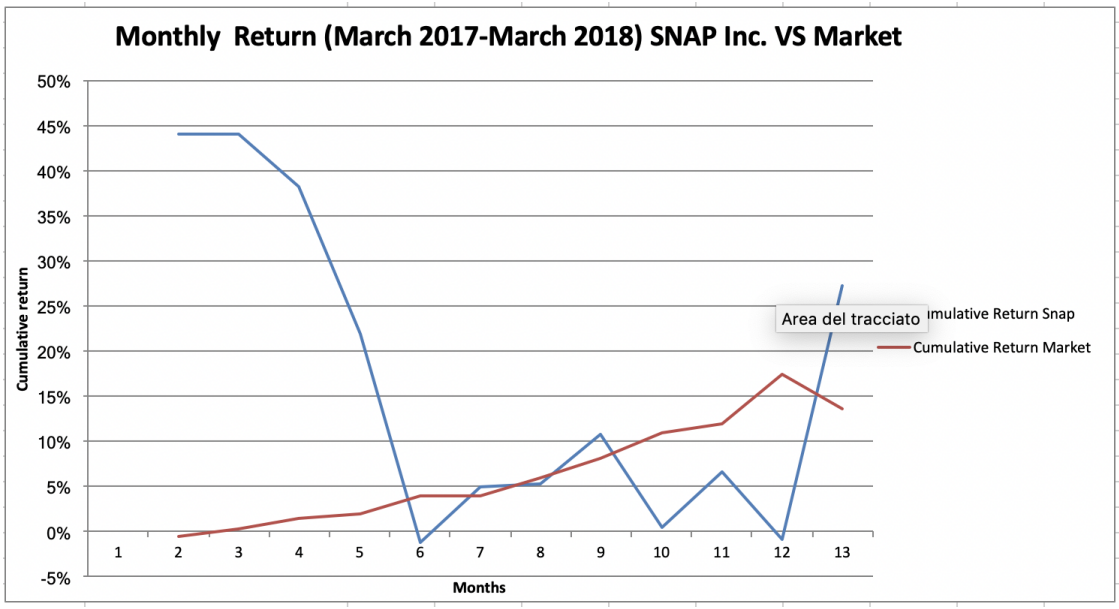



*Figure 11 - First-year monthly return*




In the second graph (see ***figure 11***, based on Exhibit 2 in Appendix) it is shown the first-year performance of SNAP compared to the market. It is clear how in this case the trend is different. The share price of the company plunged between June and July, and then again was subject to another downfall between November and January, when it reached a cumulative return of -0.90%. After this negative figure the company considerably recovered, and on March 2nd of 2018, it accomplished an

above-average performance of 27.21% cumulative return per share, compared to a yet bright YTD performance of the market (+13.61%). In spite of this, it is clear that the whole analysis is strongly influenced by the unexpected performance of the IPO, without which SNAP.N would have been an underperforming title after one year from its quotation. At the time this section is being written (26/11/2018), SNAP.N is valued on the market at the price of $6.5 (Bloomberg, SNAP: US), with a one-year return of -50.23%, compared to a +4.36% 1 Year return of the S&P 500.

## 6.6 Discussion and considerations

It is possible to say that this analysis not only confirms but also exaggerates the evidence reported above in Chapter 5. Regarding the short-term performance, represented by the end-of-the-day share price after the IPO, the initial return was of 44%, compared to 8.08% (*Figure 2*), therefore way above the average return an IPO's participant would expect. On the other hand, while statistics say that on average the long-run return turns out to be -19.92% (*Figure 3*), SNAP reported a long-term return of -50.23% based on the last available price of $6.5 per share (26/11/2018).

These data can be also reflected upon in terms of active and passive management (Pedersen, 2018), as discussed at the end of Chapter 5. It is possible to say that active traders intelligently understood that the title was underpriced, and they took advantage of it. In fact, since the IPO was underpriced, it had also been oversubscribed by traders, and not every passive trader was able to buy the shares he necessitated. Therefore, once in the aftermarket the price went up, active traders simply sold their shares to the passive traders that still had to restore their portfolios.

Clearly, while active traders gained a noticeable return and saw all their efforts in gathering information rewarded, passive investors did not make a good deal, since they still hold the stock and the price is now at its all-time low.

# 7. Conclusion

To conclude, the IPO allows a company to increase its capital by getting listed on the Stock Exchange. As shown, there might a positive relationship between the number of offerings in a given period and the wealth of a certain economy. However, several additional aspects influence the number of company going public.

In addition, the IPO process presents advantages such as the ease to find investors as well as reputational effects. Though, the management has to keep in mind that different risks may be faced, for example the loss of privacy, control and the elevated costs of listing the firm.

When looking at IPO performances, it becomes clear that on average the short-run performances are much better than the long-run performances. This is mainly due to the fact that most IPOs are underpriced, which gives the possibility to make money on the short-run by buying shares during the IPO and selling them in the aftermarket. Also, active investors do research to find underpriced IPOs and oversubscribe the order books, resulting in passive investors not getting the amount of shares they wanted. Active investors will be compensated for doing research by having the opportunity to sell their shares to passive investors in the aftermarket for a higher price.

Snap Inc. decided to go public and do an IPO based on the group's perspective to increase capital, create brand awareness, get better talent inside and increase founder prestige. The group before the IPO constantly reported improved results and, after rumors, the IPO occurred. After the IPO, in terms of results, the group struggled to meet expectations, resulting in a fall of the share price since. Finally, it has been discussed how the analysis conducted in Chapter 5 regarding short and long-term performance corroborates with the case of Snap's IPO.

# 8. Appendix

***Exhibit 1*** *- SNAP First month daily return*

| DATE (March of 2017) | SNAP | MARKET (S&P500) | Return Snap | Return Market | Cumulative return Snap | Cumulative return Market |
|---|---|---|---|---|---|---|
| 2 SNAP.N guide price | 17 | 2367,87 | - | - | | - |
| 2 EoD | 24,48 | 2381,92 | 44% | -0,59% | 44% | -0,59% |
| 3 | 27,09 | 2383,12 | 10,66% | 0,05% | 54,7% | -0,54% |
| 6 | 23,77 | 2375,31 | -12,26% | -0,33% | 42,4% | -0,87% |
| 7 | 21,44 | 2368,39 | -9,80% | -0,29% | 32,6% | -1,16% |
| 8 | 22,81 | 2362,98 | 6,39% | -0,23% | 39,0% | -1,39% |
| 9 | 22,71 | 2364,87 | -0,44% | 0,08% | 38,6% | -1,31% |
| 10 | 22,07 | 2372,6 | -2,82% | 0,33% | 35,7% | -0,98% |
| 13 | 21,09 | 2373,47 | -4,44% | 0,04% | 31,3% | -0,94% |
| 14 | 20,58 | 2365,45 | -2,42% | -0,34% | 28,9% | -1,28% |
| 15 | 20,77 | 2385,26 | 0,92% | 0,84% | 29,8% | -0,44% |
| 16 | 19,89 | 2381,38 | -4,24% | -0,16% | 25,6% | -0,61% |
| 17 | 19,54 | 2378,25 | -1,76% | -0,13% | 23,8% | -0,74% |
| 20 | 19,93 | 2373,47 | 2,00% | -0,20% | 25,8% | -0,94% |
| 21 | 20,38 | 2344,02 | 2,26% | -1,24% | 28,1% | -2,18% |
| 22 | 21,82 | 2348,45 | 7,07% | 0,19% | 35,1% | -1,99% |
| 23 | 23,13 | 2345,96 | 6,00% | -0,11% | 41,1% | -2,10% |
| 24 | 22,74 | 2343,98 | -1,69% | -0,08% | 39,4% | -2,18% |
| 27 | 23,83 | 2341,59 | 4,79% | -0,10% | 44,2% | -2,28% |
| 28 | 22,21 | 2358,57 | -6,80% | 0,73% | 37,4% | -1,56% |
| 29 | 22,55 | 2361,13 | 1,53% | 0,11% | 39,0% | -1,45% |
| 30 | 22,23 | 2368,06 | -1,42% | 0,29% | 37,5% | -1,16% |
| 31 | 22,53 | 2362,72 | 1,35% | -0,23% | 38,9% | -1,38% |

***Exhibit 2*** *- SNAP First year monthly return*

| Date | SNAP | MARKET (S&P500) | Return Snap | Return Market | Cumulative Return Snap | Cumulative Return Market |
|---|---|---|---|---|---|---|
| IPO day | 24,48 | 2381,92 | 44% | -0,59% | 44% | -0,59% |
| 28/04/17 | 22,55 | 2384,2 | 0,09% | 0,91% | 44,09% | 0,32% |
| 31/05/17 | 21,21 | 2411,8 | -5,94% | 1,16% | 38,15% | 1,48% |
| 30/06/17 | 17,77 | 2423,41 | -16,22% | 0,48% | 21,93% | 1,96% |
| 31/07/17 | 13,67 | 2470,3 | -23,07% | 1,93% | -1,15% | 3,89% |
| 31/08/17 | 14,51 | 2471,65 | 6,14% | 0,05% | 5,00% | 3,94% |
| 29/09/17 | 14,54 | 2519,36 | 0,21% | 1,93% | 5,21% | 5,87% |
| 31/10/17 | 15,34 | 2575,26 | 5,50% | 2,22% | 10,71% | 8,09% |
| 30/11/17 | 13,78 | 2647,58 | -10,17% | 2,81% | 0,54% | 10,90% |
| 29/12/17 | 14,61 | 2673,61 | 6,02% | 0,98% | 6,56% | 11,88% |
| 31/01/18 | 13,52 | 2823,81 | -7,46% | 5,62% | -0,90% | 17,50% |
| 28/02/18 | 17,32 | 2713,83 | 28,11% | -3,89% | 27,21% | 13,61% |

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