Department of Business and Management

MSc in Corporate Finance

Course of M&A and Investment Banking

IPOs and Direct Listings: ideal characteristics to opt for the second method

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Academic Year 2021/2022

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Abstract

Direct Listings, from 2018 onwards, when the music streaming giant Spotify decided to pioneer a new and unusual way to go public, have soared in popularity and have attracted since then great interest from both market participants and external parties. They present in fact unique features and elements that mark a significant distinction to the widely utilized IPO process.

The goal of this research is to identify which companies would look as particularly suitable to undergo such new variant of getting listed. IPOs and Direct Listings are very complex and different, with the latter not being appropriate for every firm pondering over the choice to go public. Consequently, a certain specific company profile has to be present in order to justify and support the decision to avoid a traditional IPO.

Thus, more than displaying and showing from a theorical standpoint which of the two processes would look more appealing and convenient, the goal is to point out what kind of company would have more incentives, given its unique features and objectives, to opt for this emerging alternative way. To reach this research goal, several aspects will be taken into account and analyzed, from share price performance and volatility, through the Investor Education process up to Dilution and the pricing methodology.

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Chapter 1

1.1 What are Direct Listings? Introduction

Direct Listings are a relatively new phenomenon in financial markets, having made their first appearance in 2018, amid on the one side harsh critics and skepticism and on the other one support and enthusiastic remarks that hailed them as a long-awaited revolutionary approach. This totally different approach to get access to the markets divided, and still does as of today, the financial world as undeniable advantages and positive aspects are compared to the issues and risks that might be encountered, being as well a rather new and "unexplored" practice. With the term "Direct Listings" we are in fact referring to an innovative way of accessing public capital markets for companies seeking to avoid some of the issues and nuisances that have been linked to traditionally Investment Bank led IPO processes. They have been gaining a lot of popularity and public interest in the last 3 years as more firms welcomed and adopted them, being increasingly perceived as a way of escaping some usual IPO related practices that have always been deemed, not only by the companies but also their investors, as annoying and unpleasant, to say the least; the system to bring a company public was in fact, according to many, flawed and characterized by structural problems that penalized systematically shareholders in particular. And as the voices became louder in pointing out and highlighting what hadn't been working for a long time in traditional IPOs, Direct Listings were devised and put into practice, as they appeared to constitute an efficient alternative to overcome these shortcomings. They distinguish themselves for meaningful aspects like the issuance of new shares, the pricing methodology, the topic of lock-up agreements as well as investor education, just to name a few of them. The concept of Direct Listings thus appears appealing to companies and its stakeholders for a variety of reasons which go well beyond the greater speed and straightforwardness of the process, as the name itself suggests; it is in fact of fundamental importance to underline from the start that the advantages, as well as issues and disadvantages, span across a much wider range of aspects than the name implies.

The goal of this work is to start by providing a comprehensive overview of the Direct Listing process and contextualizing it in the current financial environment. Afterwards, the aim is to dig deeper into the empirical differences with traditional IPOs and, more than showing which of the two processes looks more appealing to companies and their shareholders, point out which are the ideal characteristics

and features that a company should have in order to pursue a Direct Listing. Direct Listings in fact, just like any other process, are not meant for every kind of company as there are certain aspects and features that would make them preferrable for some rather than others. In chapter two this exact point will be thoroughly addressed.

The success and public attention Direct Listings have been experiencing is however mainly due to a widely known firm that chose for the first time to think outside the box and, after carefully evaluating its needs and current situation, came up with an alternative way of getting listed on a stock exchange. This company is Spotify, the music streaming giant from Sweden, that was the first in April 2018 deciding to go public in a way substantially different from the regular IPOs that had taken place until that moment; it got listed on the NYSE and it inaugurated in a sense a new season of listings characterized by unique features and procedures. At the base of Spotify's decision there was the intention of being innovative and take some risks to achieve beneficial effects, in particular for all those employees and investors who had been with the company for a long time. However, the skepticism and doubts cast by the SEC and other involved parties were consistent at first, and it took a great amount of work to get past them and convince them that especially the company's financials and various disclosures would have been reported in the exact same way of a traditional IPO, as Spotify's CFO Paul Vogel declared[1]. In the end the process turned out to be a great success also thanks to the specific characteristics of the company that made possible this new way of getting listed. Spotify's was the perfect test case and first of a series of companies following suit and adopting the same procedure to bypass some elements associated with traditional IPOs. These firms belong all to the most innovative spectrum of the tech sector and the wide majority of them has gone public on the NYSE; among them figure for example Slack, the messaging software devised to improve communications in businesses, Palantir, providing software to store and analyze data, Roblox, an online platform where people go to play or create themselves games as well as Coinbase, the popular crypto exchange based in the USA. In total there have been 13 DLs up to the time of writing with 8 settling on the NYSE and 4 on the Nasdaq; only 1 chose the LSE[2]. In fact, if before Direct Listings had only been performed on the NYSE or the Nasdaq in the USA, in June 2021 London-based money transfer Fintech company Wise decided to go public taking this alternative route on the LSE. It concluded

[1] https://www.slush.org/article/doing-things-the-spotify-way-the-road-to-direct-listing/

[2] https://www.barrons.com/articles/direct-listings-vs-ipo-paths-to-going-public-51638305261?tesla=y

the successful listing day with a valuation of almost £9bn[3] and British authorities hoping it will pave the way for other similar companies.

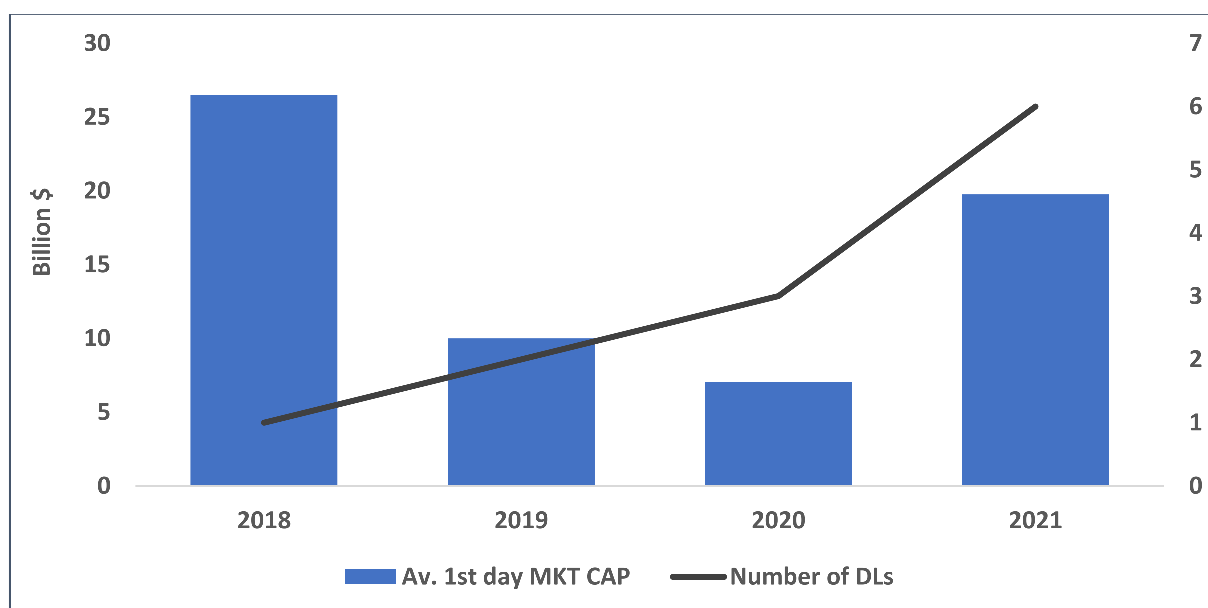

Figure 1 Number of Direct Listings and average 1st day market cap

The graph above highlights the steady increase in the number of Direct Listings over the years as well as, on the left axis, the closing day market capitalization of the companies going public in this way, calculated as an average for each year.

1.2 How do Direct Listings work? Characteristics and Functioning

Characteristics

As previously mentioned, Direct Listings were born and conceived from the start as an alternative option to the classic IPO process that every company wanting to be publicly traded had to undergo until 2018. Accordingly, they possess many notable elements of distinction that will be presented on a general level in this section, before being analyzed more in depth in chapter two with the aid of empirical evidence and data.

[3] https://www.ft.com/content/811dacb5-a2ed-4208-9b93-41522f3b032b

Broadly speaking, a Direct Listing doesn't consist of an underwritten offering where newly issued shares are first bought by a syndicate of banks and then resold to selected institutional clients, but instead it is only a secondary offering such that no new capital is issued; if traditionally the process of going public implied the issuance of new shares, which were first bought by the banks leading the process and then sold for a profit to clients of their choice, now it is not the case as no primary offering happens. Accordingly, the company going public doesn't obtain any new capital to invest and use in its operations. In this way one of the most significant reasons firms have traditionally had to go public, namely obtaining new capital to finance growth and expand, ceases to be present with this alternative method. Here no shares are created but it is given the chance to all insiders, like investors and employees who own stocks, to cash out immediately by selling their part. The Direct Listing process has been thought exactly to remunerate those who have been invested from the start by allowing them a quick exit opportunity and route to liquidity without any restriction or lock-up period; traditionally in fact, IPOs have been embedded with lock-up agreements in the range of 6-12 months forbidding insiders to sell. The rationale is that if everyone were to sell as soon as the stock started trading, the selling pressure would be too big, affecting negatively the stock price and its volatility: so, the aim of these agreements is to stabilize the share price. Thus, what has often been described as an event providing liquidity to insiders in reality responds only partially to this statement, as some time has to go by before they're allowed to free up their investments. Moreover, this feature has often had a significant impact on the investment returns of early-stage investors like venture capital firms, for which even a 6 months difference can have a major effect on the return of the capital employed on account of their limited partners.

Direct Listings have drawn the attention also for the different role of Investment Banks. It would be incorrect to state that Investment Banks don't play any or an insignificant role, but what stands out is rather how smaller this role has become. The company undergoing this untraditional path still relies on one or more affirmed financial institutions to help it navigate many important parts of the process; from the investor education, with the preparation of the equity story to convey and all the relative marketing materials, until the listing day on the trading floor of the chosen exchange. But without any doubt their weight has gotten smaller as well as the leverage they have traditionally had. In order to completely understand this new phenomenon it is necessary to go over the functions that banks have had until today before analyzing their new roles.

In a traditional IPO the role of Investment Banks can be divided in two phases, namely a private and a public one. On average the entire procedure lasts about 6

months but it really depends on the specific case and on how well the company is prepared in the first phase.

1) In the private phase banks undertake a series of tasks which can be seen as a sort of preliminary preparations which are necessary and important in order to set up correctly the entire procedure. They usually start by carrying out an accurate Due Diligence, taking care of all the legal documents and developing the investment case that will help sell the company's securities to the investors. It is a backstage phase without any contact to external parties. At the same time initial valuation models are being built with the aim of understanding the true value of the shares and getting an initial idea of what a reference price could be. Usually, more than a single specific price, a price range is developed.

2) The following public part is dominated by the direct contact with potential investors and happens once research materials have been successfully prepared and are ready to be presented. It is initiated with a thorough Roadshow and Investor Education process where, over the span of some weeks, numerous meetings with investors in different countries are organized. The goal is to transmit and spread the equity story, highlighting why an investment in the company would make a compelling case, as well as enabling management to develop lasting relationships with investors. Here, a lot of time and effort is spent by the management, as well as by the banks organizing it, across relevant markets in the world to make sure that all potential investors have the chance of getting to know the company and really understand the business. It is important to notice that already during the Investor Education process talks concerning the offering size and valuation start going on.

   Following the crucial Investor Education procedure, the next part consists of the creation and filling of a book of orders where every interested investor submits an order with the price and quantity he would be willing to buy. The parties invited by the banks to submit their bids are funds or high net-worth individuals, with retail investors being granted no access to the securities. The final price will be a function of the demand registered and will be adjusted to the upper or lower end of the range according to the results displayed by the Bookbuilding activity. In this way this is a crucial moment of an IPO as it is the time the final share price is obtained; once the price is derived, shares start to be allocated to bidders chosen by the banks that have led the Bookbuilding activity. Here, the goal would be theoretically to allocate securities to those shareholders who have intention,

for instance backed by a solid track record, of keeping them with a long-time horizon in order to better support the company's long term plans and goals. However, also choosing some of them with a shorter time horizon could be of use, as their early selling could help provide liquidity in the first days and thus create a new market for the firm going public. It is meaningful to point out, as previously mentioned, that the shares allocation actually means their sale, as the syndicate of Investment Banks serves as underwriter buying and then reselling the shares issued. The choice to operate in a syndicate responds to the necessity of distributing and minimizing risk; compensation for assuming this risk is that the price at which banks resell the shares they purchased is higher than the one they bought them at. In this way a profit is ensured. Moreover the underwriting effort can be either a firm commitment, where a specific amount of profit is ensured to the firm going public through the sale of shares or, alternatively, a best effort commitment where no proceedings amount is guaranteed.

Having shed light on the key functions of Investment Banks in a traditional IPO process, there are substantial differences to their role in the relatively new Direct Listings. There appeared to be in fact relevant issues connected to their functions that prompted the change initiated by Spotify in 2018. Besides the high fees that are retained by financial institutions to carry out the underwriting activities as well as taking care of all the other phases, many doubts have been cast concerning a potential conflict of interest these banks seemed to face. The Bookbuilding activity as well as the share allocation, are in fact structured in a way such that the banks might be tempted to pursue their clients' interests more than the ones of the company going public, that on this occasion is also their client. The banks have had in fact total discretion in choosing to which bidders allocate the shares, with limited saying on the side of the company, and have traditionally priced the securities at a discount; the goal was to cause a modest appreciation on the first trading day to ensure some gains to their clients. It is in fact often the case that these institutional clients are those with whom Investment Banks running the process traditionally do business with, thus having developed well established relationships with them. The resulting underpricing phenomenon, which will be analyzed in detail in chapter two as a key differentiating element with Direct Listings, is thus widespread; notable have been many first day "pops", with shares appreciating significantly over short periods of time and often being misunderstood by the public and media covering them. It is in fact one of the biggest myths in IPOs that the larger the first day price appreciation, the more successful the initial offering has been. Meaningful first day appreciations surely

hit the headlines but show that the IPO was mispriced at the expense of the company. There have been many popular cases of dramatic mispricings of this kind like for instance Lemonade, an insurance tech company whose shares soared 139% on the listing day in 2020; the company had sold its 11 million shares at 29$, thus obtaining around 300 million in new funds, but had left on the table more than 400 million based on the 69$ closing price[4]. A similar case always in 2020 happened to the popular company AirBnB that saw its stocks close at 144.71$ when they had sold them at only 68$ to the underwriters; the home rental firm could have gathered more than double the funds that instead went into new investor's pockets[5]. This means that huge amounts of money have been left on the table by shareholders and this has happened because of a pricing mistake. Of course, there are also other market dynamics that might contribute to cause a first day "pop", starting from a very high demand from the public; being in fact the supply of shares trading on exchange limited to a certain percentage of the total, an excessive interest and demand could result in a steep increase in price over a short period of time. And these examples that have been mentioned are only two popular ones among many others; Professor Jay R. Ritter from University of Florida estimates that in 2021 $28.65 billion have been left on the table, calculated for each IPO, as difference between first day closing and offer price multiplied by the number of shares offered[6]. For these reasons among others the process seems to be somewhat opaque and not straightforward, thus highlighting the necessity of offering a valid alternative.

In Direct Listings Investment Banks still play a role and provide great support in various phases although their leverage and power has significantly decreased. In particular, the public phase has become very small, or even almost non-existent as compared to classic IPOs. There is not anymore a formal bookbuilding roadshow with continuous meetings and talks going on with investors; instead it has been replaced by an Investor Day where the company itself invites investors to learn more about them on a one-to-many basis. Of course, there will also be meetings one-to-one with the most affluent and significant investors, although there is no order placement, as no shares are being sold. During these meetings as well as during the Investor Day, the management will be accompanied by its advisors who are still Investment Banks, helping them to sell the story and develop the right relationships. They also provide their advanced experience and expertise in preparing all the marketing and legal materials that will be utilized. However, the amount of information presented is less considerable and the

[4] https://www.cnbc.com/2020/07/02/tech-ipos-getting-mispriced-as-lemonade-and-agora-double-in-debuts.html
[5] https://www.reuters.com/article/airbnb-ipo/airbnb-valuation-surges-past-100-billion-in-biggest-u-s-ipo-of-2020-idUSKBN28K261
[6] https://site.warrington.ufl.edu/ritter/files/IPOs-Underpricing.pdf

meetings are less intimate than during extensive IPO roadshows. Spotify for instance, the first corporation opting for this alternative road, conducted its Investor Day on March 15th 2018 with its complete leadership team, through a live public stream viewable around the world. Unlike IPOs, where only the CEO and CFO usually participate, Spotify's main representatives were all present. Striking was especially the enhanced transparency compared to the traditional roadshow targeting only institutional; here everyone, retails and institutional alike, was on the same floor and granted access to the same information. The virtual meeting lasted just more than a couple of hours and none of the Spotify's appointed financial advisors took part, with the company thus relying exclusively on its Investor Relations Team's ability to deliver the message they wanted to convey. Additionally, a selected financial advisor will play an important role also on the trading floor and will work closely with the Designed Market Maker (DDM) to ensure that the process runs as smoothly as possible.

Moreover, adopting this new approach, there is an element whose importance has to be underlined, namely the necessary filings with the authorities. Also with a Direct Listing shares need to be registered with the SEC, for what concerns the US. A S-1 form is in fact adopted to register the securities and it will be commented and reviewed by the SEC; the timing and relative disclosures are approximately of the same entity as a traditional IPO. What constitutes a difference are the forward-looking communications the company is entitled to make. In IPOs, prior to the registration and successive listing, corporations have very limited ability to provide forward financial guidance due to liability concerns: choosing this kind of process they have to rely on the research analysts of the banks assisting them, who will develop their own financial models addressing future perspectives of the company. On the contrary in Direct Listings there's no such problem with company guidance being made available for all investors and thus having the potential to be a significant catalyst to draw the public's attention.

The last piece of the puzzle that makes up for a huge difference in Direct Listings is represented by the pricing methodology; as explained before, since no Bookbuilding activity takes place, there is no opportunity to arrive to the share price relying on registered demand in the form of each investor's quantity and price order. Price is on the contrary determined through a live auction that happens on the first trading day. Every insider has in fact the right to immediately sell his shares, without having to wait for the exipiration of a lock-up period. Accordingly, the equilibrium price will be set where live demand and supply meet. It could take more hours on the first trading day before the market maker is able to identify a level where the two encounter. What could be a great help and proxy for the initial

trading price is the one that occurred on private transactions in secondary markets, although there is no guarantee that the two will be even close; evidence shows that all companies pursuing a Direct Listing carefully analyzed the private transactions that had been going on for some time, in order to get a better idea and an approximation for the initial price. In Spotify's case the reference price conveyed by the company and the exchange one day before the listing was the same as the last price showing up in secondary transactions; in Slack's case it was instead very close to the volume-weighted average price (VWAP) of the recent secondary trading activity. That's why it is advisable to keep track of the secondary activities going on for at least some months before the planned Direct Listing, in order to have already some prior price discovery. In this way, there is in Direct Listings a truer price discovery where many buyers and sellers come together and an equilibrium price is established; whereas in IPOs there is limited supply with only a small part of the outstanding shares offered to buyers, namely the newly issued shares as the others are subject to lock up agreements. Thus, volume is key in Direct Listings, and it can be a factor why the process isn't successful or doesn't run smoothly; the larger the volume of buyers and sellers coming together the more authentic the price discovery. Of course, there are some risks and uncertainties associated with this more natural and potentially accurate way of pricing shares; first of all there is the liquidity concern that can be ensured only by a sufficient number of shareholders selling their shares. Summing up, this new pricing methodology results in higher transparency and equality among all different market participants. This aspect has been highly valued by many companies like for example the popular crypto exchange Coinbase, conducting a Direct Listing in April 2021. Brian Armstrong, founder and CEO, stated that the decision to bypass the conventional IPO procedure had been taken because he wanted the price to be a true market price and not something set behind closed doors; this, according to him, perfectly embodied the spirit of cryptocurrencies and his willingness to achieve more financial freedom[7].

Having presented the main elements of a Direct Listing, the following table sums up the key differentiating points with an IPO.

	Direct Listing	**IPO**

[7] https://www.cnbc.com/video/2021/04/14/coinbase-ceo-on-the-choice-to-go-public-through-a-direct-listing.html#:~:text=There's%20not%20really%20a%20wrong,was%20set%20behind%20closed%20doors.%E2%80%9D

Offering	Secondary	Primary but can have a secondary part
Lock-up Period	Absent	6-12 months
Investor Education	Investor Day	Intensive Roadshow
Price Discovery	Live Auction	Bookbuilding
Share allocation	Retail and Institutional	Institutional only
Investment Banks Role	Advisors	Advisors and Underwriters

Table 1 Differentiating elements between IPOs and Direct Listings

Practical Functioning: evidence from Slack

On a practical level it is very interesting to examine the concrete mechanism through which a price is identified and shares start trading, as well as the role of the Designated Market Maker. Three main phases can be identified prior to the price discovery and start of the stock trading: they are all important parts of a Direct Listing process although in the end it's going to be the live auction that will set the price. Here they are presented with the help of the case of Slack, a software company in the US.

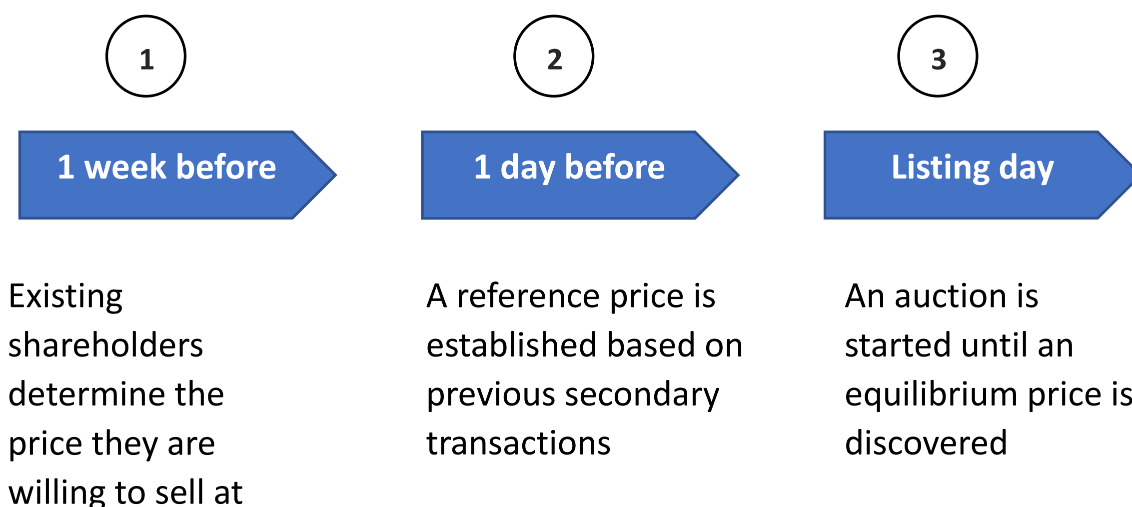

Figure 2 Phases to establish a price

In order to ensure a smooth and linear process, usually in the week preceding the listing day talks go on between the financial advisors (Investment Banks) and the shareholders to start gaining insights on who would be willing to sell upon listing, and at which price. It is in fact of key importance to gain a preliminary understanding of what the selling pressure will be on the first trading day and if enough liquidity will be ensured. At the same time, it is the financial advisors' duty to gather information on the buying interest present on the market and to provide the Market Maker accurate details about the company's current equity ownership. The thorough analysis of the latest Capitalization Table represents an important element to focus on. After this assessment, the day before the listing, the stock exchange and the financial advisors will make public a reference price for the stock, determined by examining the most recent history of private transactions in secondary markets. The Market Maker, working alongside the leading financial advisor, will consider this price in connection with determining the opening public price. However, this exercise might have little or no relevance for the opening and subsequent price as it is very difficult to forecast with precision future market demand; accordingly, not excessive relevance should be placed on private sales prices, although they can serve as a proxy or initial approximation. As the image below shows these are the private share prices for Slack, grouped on both a quarterly and monthly basis, concerning the year 2019, that have been taken into account by the Market Maker to determine an initial reference trading price. In the case of Slack, going public on June 20th 2019 on the NYSE, the reference price was set at 26$ per share the evening prior to trading.

	Per Share Sale Price				Number of Shares Sold in the Period	Number of Shares Outstanding (Period End)
	High		Low			
Annual						
Year ended January 31, 2019	$	23.41	$	8.37	9,382,888	500,945,001
Quarterly						
Year ended January 31, 2019						
First Quarter	$	8.37	$	8.37	1,205,454	458,259,049
Second Quarter	$	15.50	$	14.00	312,104	460,744,948
Third Quarter	$	13.79	$	10.71	6,048,141	499,263,366
Fourth Quarter	$	23.41	$	17.25	1,817,189	500,945,001
Monthly						
Year Ended January 31, 2019						
July	$	—	$	—	—	460,744,948
August	$	10.71	$	10.71	4,185,501	494,056,811
September	$	11.91	$	11.91	1,548,640	497,210,557
October	$	13.79	$	13.79	314,000	499,263,366
November	$	22.00	$	22.00	75,000	499,315,136
December	$	22.00	$	17.25	154,500	499,806,957
January	$	23.41	$	21.00	1,587,689	500,945,001
Year Ended January 31, 2020						
February	$	22.00	$	22.00	210,000	501,542,049
March	$	26.00	$	21.00	2,374,376	502,136,716

Table 2 Slack history of secondary transactions[8]

The last part of the price determination is the one where an auction starts and both buyers and sellers adjust their orders, until the moment when a price is discovered and the stock starts trading.

[8] https://www.sec.gov/Archives/edgar/data/1764925/000162828019004786/slacks-1.htm

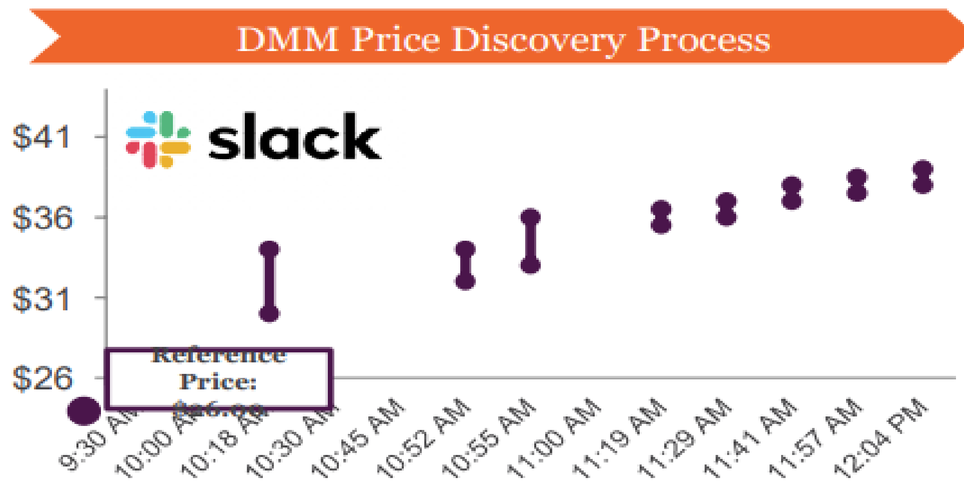

Figure 3 Slack price establishment within the live auction[9]

In the case of Slack the Market Maker (NYSE) had to observe supply and demand for many hours before the indications narrowed and the initial trading price of 38.5$ was chosen. Its main duties could be summed up with the following three:

1) Work with the leading advisor in establishing a reference price prior to the listing
2) Open the stock at the right price
3) Keep price continuity supplying, if necessary, its own capital to compensate for temporary disparity between supply and demand. Since a stabilization agent like an Investment Bank is not present, it is the Market Maker's duty to perform this activity. In IPOs in fact, it would have been Investment Banks to carry out stabilization activities that could involve contrasting price volatility through purchases or dealing with higher than expected demand by dumping additional shares; this is the so called greenshoe option that consists in selling an extra block of shares to increase supply and keeping the price from rising too abruptly.

Direct Listings represent, as seen, an interesting alternative to the established IPO process around which lately some negative sentiment has been aroused, mainly because of structural problems that have been favoring some participants over others and that have caused to a certain degree a lack of transparency. Although the basis and sense of both procedures is similar, there are significant differences

[9] https://www.freewritings.law/wp-content/uploads/sites/24/2020/12/Becoming-a-US-Public-Company_The-New-Three_Track-Process.pdf

that bring along advantages with regards to some aspects and disadvantages for what concerns others. Summing up, key reasons to go for it are the following:

- Going public without the company having to sell new shares
- Providing immediate liquidity to existing shareholders without diluting them
- Providing equal access to all buyers and sellers, both retail and institutional
- Carrying out a true market driven price discovery

Accordingly, choosing one method over the other is a company's specific choice that cannot be generalized and strictly depends on the single entity's characteristics and goals. This very last point will constitute the objective of the empirical research conducted in chapter two where, with the aid of practical evidence, the ideal features needed to opt for a Direct Listing will be shown and highlighted.

1.3 The investors' and banks' perspectives: evidence from both worlds

Observing this alternative process from the eyes of an investor, both already a shareholder or a new one wanting to purchase the company's shares, there are undeniably some interesting advantages, as they have been mentioned in a section above; among them, assuming the perspective of existing shareholders, figure for example the lack of dilution, as it is only a secondary offering and no new shares are issued, as well as the absence of a lock-up period where the possibility of selling their securities, and thus obtaining a financial return, is frozen for a certain period of time. Also, assuming the perspective of a new investor, a Direct Listing would for sure enable him to participate in the share allocation with the same "rights" and priority level as larger institutional investors who, in a traditional IPO, would receive a preferential treatment by the Investment Banks assisting in the process.

But probably, between the two investor types, the former, namely the shareholders, would be the ones benefiting more from a Direct Listing. And it is particularly among them that the push for a change in the way of going public has been increasingly strong. It is especially for early investors like Venture Capital firms who got involved with their share at a very early stage of the corporation, and that have participated in all the financing rounds that have occurred over time,

that this kind of exit could make a big difference. Venture Capitals are organizations that aim at discovering start-ups with great potential, investing in them through time and then cashing out either by directly selling their stake to another party or by an IPO. They typically operate on a 5-10 year horizon and in the US, where all Direct Listings except for one have happened, they represent a meaningful pillar of the economy and possess accordingly great influence. It is in fact particularly in the US that many VCs have loudly expressed their favor for this alternative route for a variety of reasons. For them in fact, not being exposed to a typical 6 month lock-up agreement is incredibly beneficial; although it would be comprehensible to argue that such a time doesn't make up for a big difference, it actually does in term of their returns. They invested in the company many years before and even a 6 month period could represent a huge difference for their limited partners that rely predominantly on that metric to value their performance, just like competitors and the rest of the market do. Just to provide an example, imagining an hypothetical investment period of 7 years for a VC, where 100 is invested at time 0 and 150 is obtained at the investment exit, an apparently small difference in the annualized rate of return could actually mean a lot. With a 7 years timeframe the annualized rate of return would be 6% while, adding a 6 month lockup period, thus with an exit at 7.5 years, the return would be 5.5%; a significant difference in a highly competitive and crowded sector. In this way it is of vital importance for VCs to exit the investment as fast as they can as soon as the company goes public, in order not to deflate their investment returns and thus status and popularity. The other reason why they are expressing their strong preference is the more natural price discovery process and absence of dilution that would significantly reduce their percentage quota. The first day "pop" represents in fact value that could have been captured by them, had they only been able to sell; and in their case this translates into sizable amounts of money being left on the table that, again, mean lower investment multiples and rate of returns, that are the key metrics upon which their work is evaluated. So for the professional investors who have been in the company for many years and that base their business on their investment results, these features really mean a lot. Notable have been the declarations of famous venture capitalists like Bill Gurley and Andreesen Horowitz supporting the rationale behind Direct Listings and pushing for a widespread change. Bill Gurley in particular, popular venture capitalist at Benchmarck, has even hosted events across the country trying to convey his message and move as many executives as possible: in 2019 for instance, he managed to gather about 100 CEOs of late stage private tech companies and around 200 other attendees like CFOs, venture capitalists and fund managers at an event in San Francisco called: "Direct Listings: a simpler and superior

alternative to the IPO"[10]. The name of the event itself perfectly depicts his position on the matter.

For what concerns banks instead, it is undoubtedly true that, should a major shift away from IPOs take place, they would see their revenues decline as a chunk of their typical fees in the process would disappear. Particularly because a meaningful portion of the compensation they get from helping a company go public comes from the underwriting fees, which, with this alternative, would not of course be present. However, besides pondering over mere compensation elements, it is interesting to observe how banks are reacting towards this new phenomenon; are they considering Direct Listings as a new business opportunity or are they redirecting their efforts and interest elsewhere? So far there have been many banks involved in the new process as the graphs below show.

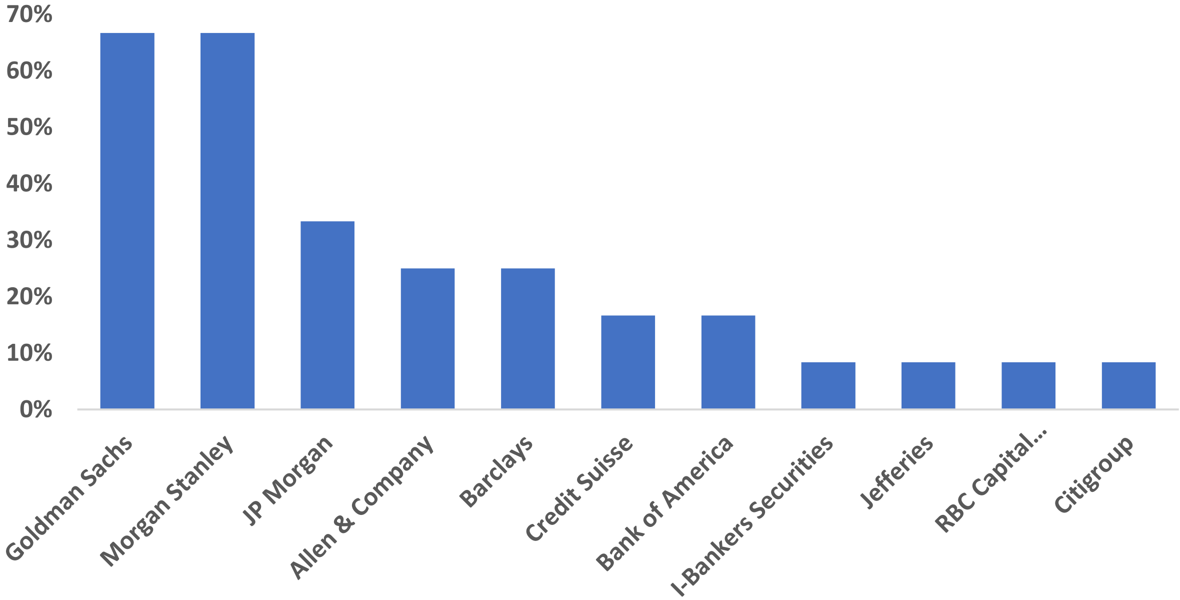

Figure 4 Percentage of Direct Listings where banks have taken part[11]

[10] https://www.cnbc.com/2019/10/06/bill-gurleys-plan-to-move-from-tech-ipos-to-direct-listings.html
[11] CNBC News, SEC Filings, Personal Analysis

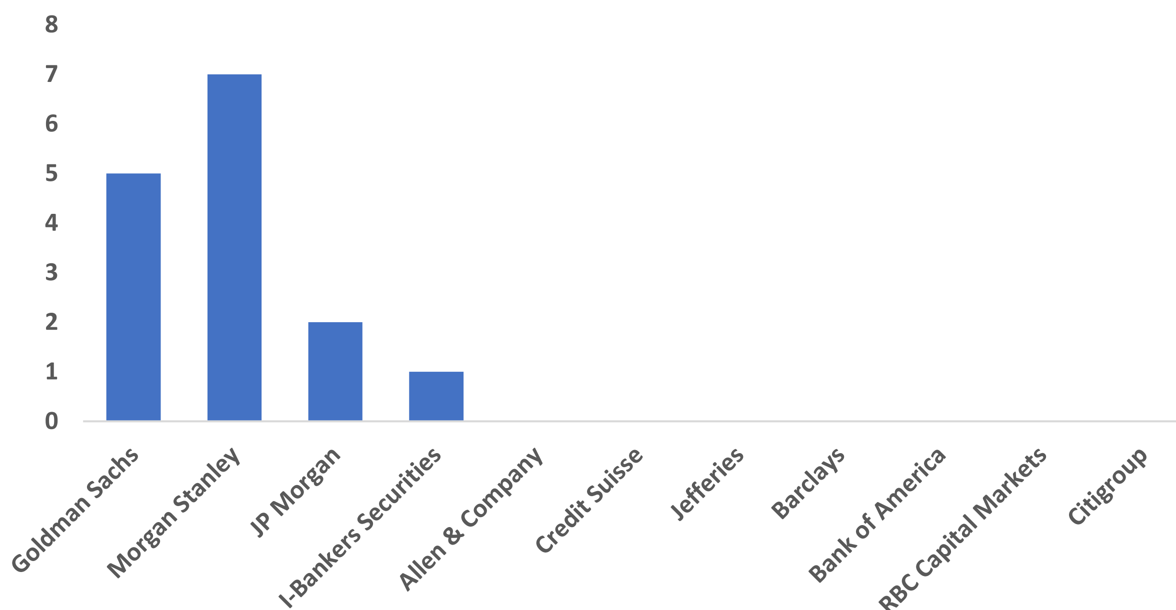

Figure 5 Number of Direct Listings where banks have served as leading advisor[12]

Starting from the first one, it highlights in which percentage of Direct Listings these Investment Banks have served as advisors while on the second one the number of times they have respectively served as leading advisor is shown. Assisting as leading advisor means being entrusted with more responsibility and control over the entire process and having to work in close contact with the Market Maker. Looking at the practical evidence, there are two banks who have taken part in most Direct Listings and thus have gathered more experience around the process, namely Morgan Stanley and Goldman Sachs. The former in particular has acted 7 times as leading advisor. Moreover, what stands out about this data, is also the fact that for all the first 5 Direct Listings, involving in the order Spotify, Slack, Watford H., Asana and Palantir, it has always been appointed as leading advisor. For this reason, it could well be argued that it possesses a first mover advantage. Right behind in terms of experience gathered over the years lies Goldman Sachs. It is as interesting paying attention to how "closed" in a sense the sector is for banks; naturally, the low number of Direct Listings has greatly contributed to it, but at the same time especially for what concerns the role of leading financial advisor it is assuming the traits of almost a monopoly.

Banks are surely acknowledging the presence of a rising trend where they will face harsh competition from other financial institutions to gain a spot in each process. For this reason, it's important for them to position themselves for the years to come. At Morgan Stanley, pioneer of managing a Direct Listing process,

[12] CNBC News, SEC Filings, Personal Analysis

the banker Colin Stewart has recognized that there are many elements and broader trends supporting this new way of going public, that will likely face growth in the future. Among others he mentions how they had been noticing since some time structural aspects in the markets anticipating this shift[13]. He mentions for instance how the part of the company that is being sold in IPOs has steadily decreased over time in the last decade, and that applies especially for tech companies which, so far, have been the ones exploiting Direct Listings. He adds how firms are used to getting listed at later stages after raising enough capital in many previous financing rounds on private markets, in order to ensure business continuity for a good amount of time. From there the necessity of raising additional capital has dwindled lately. So, also the observation of financial markets in the latest years could have yielded some proof of major changes starting to be underway.

1.4 Direct Listings contextualization: connections with trends shaping the financial sector

The recent spread of Direct Listings among companies involved in the tech sector, besides being due to some evident advantages for companies and investors that have been mentioned, has for sure a relationship with some underlying global trends of primary relevance that are and will keep shaping the financial sector worldwide with all likelihood. These trends are intertwined with larger scale social and demographic changes underway and could further boost the adoption of Direct Listings at the expense of traditional IPOs, thus influencing many companies' and investors' plans.

The first related macro trend we have been observing for a while consists of the disintermediation in financial services; talks have been going on from the nineties but particularly starting from the 2008 financial crisis, with doubts being arisen concerning the efficiency of financial markets. The usefulness of financial intermediaries has been questioned and in many cases, this has led to cut the middleman, or one the middlemen, from a transaction. A strong accelerator of this trend has been the always stronger diffusion of the Internet over the past decade. In particular, this technological breakthrough has enabled to make financial transactions and services more straightforward, easy and less time consuming. It isn't any more necessary since many years to make several phone calls to place an order on a stock exchange but instead it can be comfortably done through a

[13] https://www.morganstanley.com/ideas/what-to-know-about-direct-listings-from-a-banker

click, cutting many intermediate brokers who would have each retained a fee; this is already a very basic and simple example of disintermediation that has significantly simplified investor’s lives. Other more recent and nascent disintermediation practices can be identified in peer-to-peer lending or blockchain technology and cryptocurrencies, just to cite a couple of them. The former allows two parties to get involved into a loan agreement, where one is willing to provide initial capital with the pledge from the other to repay it with interests at a certain time horizon: the peculiar element Is that the process is run with no bank intermediation, but instead it is agreed by the two private parties directly. The latter, cryptocurrencies, thanks to the blockchain as being a public ledger where information can be accessed and validated by the network, allow users to exchange money or get involved in normal various contracts (the so-called smart contracts) without utilizing the services traditionally provided by a bank but, on the contrary, exploiting the unique characteristics of this disruptive technology. However, this doesn’t mean of course that no more intermediaries are necessary but surely the number has decreased over time and will likely keep doing so. In the wake of the ongoing disintermediation trend in the financial sector, the choice for a company to carry out the transition from private to public not through a traditional IPO, can be interpreted as a way to reduce the intermediation of the Investment Bank and instead arrive to the listing price in a more direct way, as the result of an auction where demand and supply spontaneously meet. Naturally, the auction will still take place on an exchange and the Investment Bank will still play a role especially in the investor education process as well as on the listing day on the trading floor; however, a chunk of the intermediation activity of the Investment Bank has been eroded and maybe this won’t be the only one in a near future.

Another clear trend that has given a boost to the Direct Listing method is the democratization of finance; with this expression we are referring to the always bigger participation of retail investors to many of those activities that, until a little time ago, they were excluded from. Many of those inaccessible markets and financial transactions are now available for everyone thanks to FinTech disruptions. In particular, among younger generations this is assuming the characteristics of a real movement, as the community’s activities on platforms like Robinhood and Reddit demonstrate. What does this democratization of finance have to do with the Direct Listings we have witnessed in the last years? As shown, in a traditional IPO it is the bank who acts as underwriter of the new shares and sells them to their clients. These clients are big funds and institutional investors while retail ones are not granted access to this process; this choice has traditionally been defended arguing that it’s only large investors who can assure a long-term

vision, thus bringing stability. On the other hand, this has often led to doubts concerning the presence of a conflict of interests, as previously explained. Instead, with a Direct Listing, the shares are not allocated to some clients chosen arbitrarily but on the contrary an auction is initiated between those who want to sell shares and those, both retail and institutional, who want to purchase them. The process has been in this way extremely democratized.

There is also a third phenomenon that is taking place globally and can have had an indirect impact on the rise of this alternative way of bringing a company public: Digitalization and Decentralized Finance which are very connected and dependent on one another. Although DeFi is based on the blockchain, while a Direct Listing has nothing to do with it, it can be considered as something that influenced and accelerated this shift from a traditional IPO model. It makes us also reflect on whether the Direct Listing process could only be a first step towards this peer-to-peer network with whom it shares certain values like the dwindling (or absent in case of the blockchain) importance of a central and established node like a bank as well as equality among all market participants, greater speed, lower transaction costs and the willingness of more transparency. This potential comparison doesn't seem too far-fetched also considering the recent issuance of a digital bond on the blockchain by the European Investment Bank; it is the first time that access to the capital markets was gained through this public ledger and it allowed for a much faster process and more transparency. The EIB issued a 100mn bond on a blockchain platform with the help of Godman Sachs, Santander and Societe General as advisors[14]. The specific technique that was used is the tokenization of securities which means the issuance of a blockchain token that is a representation of a real asset. These tokens can be then traded on the blockchain. Extremely insightful is the following phrase, declared by the issuer: "The EIB believes that the digitalization of capital markets may bring benefits to market participants in the coming years, including a reduction of intermediaries and fixed costs, better market transparency through an increased capacity to see trading flows and identify of asset owners, as well as a much faster settlement speed[15]". Striking to say the least, is without any doubt the similarity between the above listed benefits of conducting a public offering on the blockchain and many of the benefits seeked by a Direct Listing as an alternative to a regular IPO. This highlights how the ongoing shift towards Direct Listings shares many values and goals with the blockchain technology and could, for this reason, potentially be only a first step

[14] https://www.eib.org/en/press/all/2021-141-european-investment-bank-eib-issues-its-first-ever-digital-bond-on-a-public-blockchain
[15] https://www.eib.org/en/press/all/2021-141-european-investment-bank-eib-issues-its-first-ever-digital-bond-on-a-public-blockchain

in the direction of this disruptive technology that will likely be exploited to gain access to capital markets, as the experience of the EIB recently proved.

1.5 Other alternative routes to go public

Direct Listings aren't the only alternative way that has been devised to gain access to capital markets; the probably most known road is represented by SPACs that have undergone an authentic boom in the latest years. SPACs, special purpose acquisition companies, have been dubbed as "blank check companies" or "empty shells" because they are essentially publicly listed companies seeking interesting targets and bringing them public through a merger. A SPAC begins with a financial sponsor creating the corporation and working with Investment Banks, serving as underwriters, to bring it public. The cash raised, usually by selling shares at a uniform price of 10$, is then parked in an interest-bearing trust until the right target is found and the transaction is executed. Concerning the timing to announce the merger, it measures on average two years, with the investors receiving back their money if a target is not found over this span of time. SPACs have experienced a breakthrough year in 2020 with, for the first time, more cash raised through them rather than traditional IPOs[16]. There are several reasons why they are a viable option as well as many differentiating elements with IPOs that are worth mentioning. A first interesting element of distinction is embodied by the forward-looking projections and disclosures; with SPACs, since they are technically mergers, the company is entitled to make such communications towards investors with the ability of going in depth into future forecasts. This can result especially useful and advantageous for high growth companies who have a story to convey where the future plan/expectations part plays a big role. Moreover, there is the possibility for investors of organizing several meetings with the company management, in a much more specific way than the one achievable with an IPO; also here it would benefit fast growing young firms needing more marketing efforts to transmit their story and goals. Another interesting element relates to the fact that potentially SPACs are able to raise more capital than an IPO, as there happen to be certain specific mechanisms taking place. In particular, they are often referred to as a "double bite of the apple", instead of a single bite in a conventional process. Concretely, when the target is announced and the two parties, the target and the SPAC, sign a LOI anticipating the transaction, usually a PIPE (private investment in public equity) raise happens. This means that additional investors provide other capital to the SPAC in exchange for a

[16] https://www.goldmansachs.com/insights/pages/top-of-mind/the-ipo-spac-tacle/report.pdf

placement of the shares. Upon the PIPE raise the deal is announced to the markets. The rationale of the PIPE touches three main points. First, it enables more investors to participate in the SPAC, as not everyone is willing to park his money in an interest-bearing trust for a couple of years. Secondly it provides external confirmation and validation that the value the SPAC and the target company have agreed to is the right one. And third, it is an additional opportunity to raise capital. However, a PIPE would mean dilution for existing shareholders who would see their stake diminished because of the entrance of new investors. A last favorable point of this alternative method can be the way the company's valuation is set; since it happens in private negotiations between the two sides, it can be protected from the markets' volatility and ups and downs more than it would happen in an IPO. On the contrary, on the risks side, a SPAC process requires a much less thorough due diligence with the danger of significant problems emerging at later stages. Similarly, the time reduction that would be experienced could result to be very dangerous. Having already touched some elements of distinction between the two, for what regards instead the difference in terms of costs between a SPAC and an IPO, it doesn't stand out a strong argument that would make clear the convenience of one process over the other with respect to this matter.

SPACs, as seen, are another viable way that could potentially be used by companies who want to go public. They come along with their own pros and cons with respect to traditional IPOs, just like Direct Listings. However, being as well relatively recent, they highlight how, in the latest times, the necessity to dispose of multiple alternative solutions to reach the same goal has grown exponentially. For sure new trends and developments in the financial world, and not only, have contributed to this necessity but it is likely that also a certain degree of unsatisfaction towards IPOs from certain market participants has played a role.

Chapter 2: In depth comparison between IPOs and Direct Listings; ideal features to opt for the second method

Over the second chapter a thorough comparison between these two ways of bringing a company public will be presented; it will embrace many topics starting from pure monetary aspects and then moving on towards themes like dilution, Investor Education and the pricing process. The goal, rather than to point out which method appears to be more appealing for companies and their shareholders, is to display and reflect upon the kind of companies for which it would make sense and be beneficial to choose a Direct Listing. As mentioned, they are not in fact meant for every firm pondering over the choice of going public, with their specific needs and characteristics that should be carefully evaluated; shedding light on this very point will be the objective of the analysis. Accordingly, the point-by-point comparison will be accompanied by such considerations and reflections.

2.1 Analysis of monetary factors

Costs of the process: bank fees in both cases

As underlined over the first chapter, one of the often most mentioned pros of opting for a Direct Listing is the significant cost reduction that the company experiences. Although in fact many of the costs that are incurred in an initial public offering are also present in a Direct Listing, there are some meaningful differences starting from the lack of underwriting fees, which have always constituted a significant portion. In this section an empirical comparison between the two fee structures and entities will be produced, accompanied by a theorical explanation and recap of the main costs involved in the process.

Broadly speaking, IPO costs can be divided in two categories according to whether they happen before or after the listing day; pre-IPO and post-IPO ones. For what concerns the former they can be additionally split in direct and indirect. The focus here will be on the pre IPO direct costs as the other two categories are extremely variable and could potentially not always be present; not all companies in fact have to recalibrate business operations and adjust the firm’s structure in preparation of going public, or significantly increase their staffing expenses as

new personnel needs to be onboarded. The first element of the pre- IPO direct costs are underwriting fees, namely the expenses due to a syndicate of banks purchasing the securities and reselling them to their clients, that represent the biggest chunk of the IPO costs. Moreover, they are the main element of distinction in the cost category between traditional IPOs and Direct Listings, as the latter are only secondary offerings. For this reason, it is worth analyzing them in depth and observing their correlation to an important element, namely the offering size. In fact, they are usually calculated as a percentage of this value, which is the dollar amount of the new shares that are issued and offered to the public. This percentage decreases with the increase of the deal value, as well as the involved banks number tends to raise, mainly for complexity reasons connected to larger offerings. According to an insightful report provided by PWC, upon whose dissertation the analysis will be based, the following numbers concerning the underwriting fees have presenteds themselves[17]. The data sample consists of SEC filings for US IPOs on major exchanges between January 2015 and September 2017. From this database were excluded in the order: the ones with best effort underwriting activities (the banks buying the shares are not assuring the company about the price they will be able to get from their clients), IPOs with an offering size smaller than $25 million as well as the ones happening through SPACs. In total 315 IPOs were reviewed (2015=139, 2016=84, 2017=92).

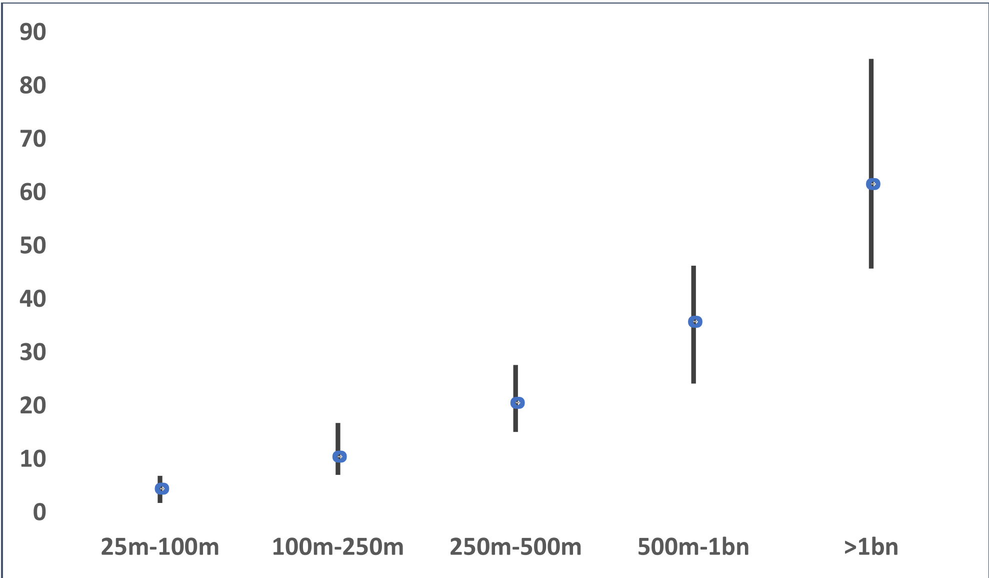

Figure 6 Cost in millions of underwriting fees per deal size including extreme values[18]

[17] https://www.pwc.com/us/en/services/deals/library/cost-of-an-ipo.html
[18] PWC report cited above, personal analysis

The above graph highlights how underwriting fees represent a significant cost that clearly assumes bigger dimensions as the deal's entity increases; the trend demonstrates also an increasing volatility as for bigger offerings the range of possible fees is much wider and more dispersed.

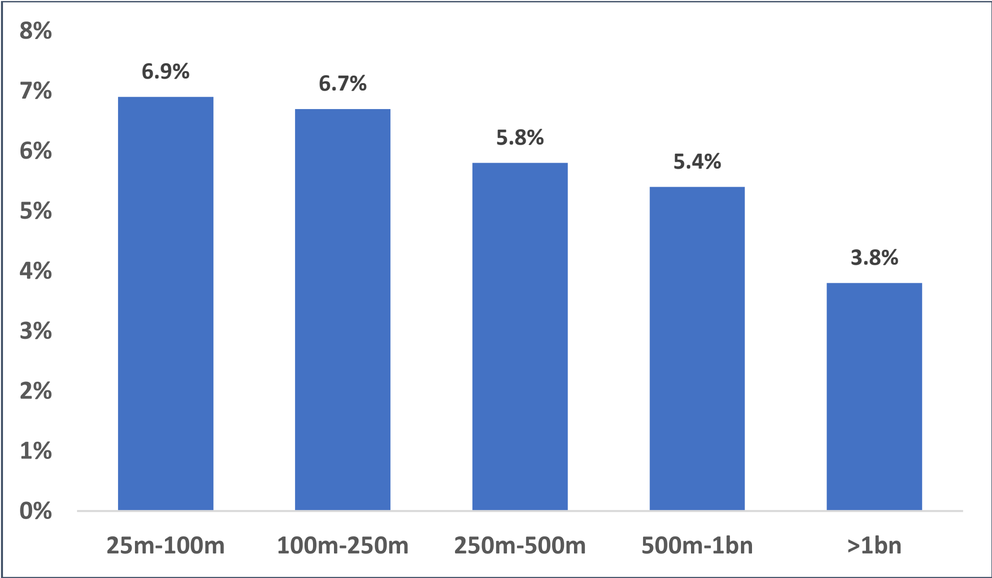

Figure 7 Underwriting fees as percentage of the gross proceeds[19]

Looking at underwriting fees not in pure monetary terms but instead as a percentage of the offering size, they result to be comprised in a range between 6.9% and 3.8%.

After the underwriting fees, what normally stands out to be the second biggest expense in an IPO process is the legal part, followed by the auditing services. Law firms carry out many crucial tasks, starting from Due Diligence to the preparation of the S-1 form filing to be transmitted to the SEC, up until coordinating contacts with the underwriters. Moreover, before going public, a company's financials will need to be audited by an independent recognized accountancy firm, which will imply other costs. Additionally, there are also other expenses ranging from printing to the organization of the roadshow as well as the listing on the actual exchange. The Nasdaq for instance, in order to have securities registered and trading on it, charges an entry fee calculated on the total shares outstanding plus a recurring annual cost.

Thus, if we take into consideration all these expenses it's easy to understand how they can quickly lead to a significant amount of money to be spent by a company

[19] PWC report cited before, personal analysis

undergoing such a process. The following table, realized with data of the PWC report about 315 IPOs, provides the estimated total average cost of an IPO. This result is obtained for different offering sizes.

	25m to 100m	100m to 250m	250m to 500m	500m to 1bn	>1bn
Accounting	0.8	1.1	1.7	1.4	2.4
Legal	1.4	2	2.6	3.1	3
Printing	0.3	0.4	0.6	0.6	0.7
Other	0.5	0.7	1.7	1	2.7
Underwriting	4.3	10.3	20.5	35.6	61.4
Total Avg. IPO Cost	7.3	14.4	27	41.4	70.3

Table 3 Total average cost of an IPO per offering size[20]

In this way the total IPO cost spans on average over a range comprised between about 7 million, for firms with an offering size smaller than 100 million, up to more than 70 million for the biggest ones. As underlined in precedence, the underwriting costs represent the bulk of it, followed by legal and accounting expenses. Concerning the sector, it is known that it is especially financial services, industrial products as well as utilities and mining that tend to sustain higher costs. This is due to the fact that they are usually very large and international organizations who, because of the peculiarity and systemic relevance of the activities they perform, are subject to additional regulations and scrutiny by authorities.

In a Direct Listing the expenses are pretty similar with respect to all the above-mentioned categories except for the one that happens to be the substantially largest; underwriting fees. Here, since no new shares are created, the Investment Banks won't have to get involved in a buying and reselling activity where they assume many risks and face uncertainty, just like they won't perform any bookbuilding and intensive roadshow or stabilization exercises on the trading day. On the contrary, the underwriting fee will be replaced with a much lighter flat advisory fee; they will in fact provide anyway meaningful help to the company, with many tasks concerning for example the marketing and legal sphere. They'll play a role, with their precious suggestions and expertise, also in defining the

[20] PWC IPO report

objectives of the listing, conveying the equity story and gaining insights on likely investors interest and behaviors. Moreover, among the Investment Banks that will keep being involved in the process, there will be one playing the role of leading advisor. It will be this bank (until today almost always either Morgan Stanley or Goldman Sachs, as seen in chapter one) who will work closely with the market maker striving to determine a reference price as previous guidance and then an actual opening price on the listing day. Because of these considerations and remarks, although the bank fee transformed itself from an underwriting into an advisory one, it is still present and not at all to be overlooked, even if of course it has decreased in value.

So, to understand how much the Direct Listing process has become cheaper, the goal is to compare the underwriting fees reported before, classified according to the company deal size, with the new advisory fees that firms opting for a Direct Listing have been paying to banks. For simplicity reasons the focus will be on the last column, the one with an offering size greater than 1 billion, and a sample of three large Direct Listings will be chosen to estimate the advisory fees paid and get what kind of a percentage reduction there has been. The comparison will then take place between 61.4 million (average underwriting fee for IPO offerings greater than 1 billion) and the average advisory fee paid in these three large Direct Listings that can serve as a proxy for all the others. For what regards the other cost categories, no changes can be assumed as they are very similar in both processes; accordingly, the real differentiating variable is the underwriting expense.

Analyzing the respective quarterly SEC filings, the advisory fees paid by Spotify, Slack and Roblox in Direct Listings result to be significantly lower than the average underwriting fee of 61.4 million for the IPOs with an offering size greater than 1 billion.

Company	1st day Mkt cap (bn)	advisory fee (mn)	Avg. underwriting fee in large IPOs (mn)	difference
Spotify	29	35	61.4	-43.0%
Slack	16	22	61.4	-64.2%
Roblox	38	50	61.4	-18.6%

Table 4 Advisory fees paid by three large companies who chose a Direct Listing[21]

[21] Respective company SEC quarterly filings, PWC report cited above

The percentage difference is impressing and measures as an average of the three 42%; this tells us that the banking services in a Direct Listing (pure advisory) are approximately half expensive as the ones offered in a traditional IPO (underwriting and advisory). From here as follows the comparison of the difference in terms of total cost between a large Direct Listing and a large IPO:

	Large IPO	**Large Direct Listing**
Accounting	2.4	2.4
Legal	3	3
Printing	0.7	0.7
Other	2.7	2.7
Underwriting/Advisory	61.4	35[22]
Total Avg. Cost	70.3	43.8

Table 5 Total average cost of an IPO and a Direct Listing[23]

As previously mentioned, the comparison has been produced acting exclusively on the underwriting costs which in a Direct Listing become pure advisory ones. About the other expenses the evidence shows that no significant differences are present since various legal, accounting and registration activities are very similar in both processes. Nonetheless, even a single difference results in a remarkable decrease in final costs.

Underpricing: an indirect cost of IPOs

The phenomenon of underpricing, already explained in chapter one, has been considered one of the most unpleasant and damaging features of IPOs. It directly translates in money that has been lost by the shareholders, or left on the table, and instead gained by the banks' clients who have purchased the securities at a discounted price and then experienced the first day "pop". In this way it is possible to achieve fast and easy profits by selling the recently bought shares on the first

[22] Calculated with the average value of 42% obtained before
[23] PWC report, personal analysis

trading day. The mostly cited purpose of this is to provide banks' usual clients, with whom they have historically worked and will likely keep having relationships, with consistent gains. However, this is not in the interest of the company going public who could have obtained much higher proceeds from the process if only a higher price had been applied to the shares. And consequently, higher proceeds would have meant more opportunities to improve operations and expand the business, having in this way an extremely damaging domino effect on the future of the firm. Thus, it is reasonable to deem the underpricing as an important additional indirect cost of an IPO as it is money lost by the owners of the company and needs accordingly to be accounted for. It is a cost even though it is often hailed by the company itself and the media as something beneficial that can draw a lot of public attention and make the headlines, allowing more people to get in touch and know the firm. This is though one of the biggest IPO myths as there is absolutely no advantage in having a large first day price appreciation. Moreover, underpricing in IPOs isn't a new phenomenon as Professor Jay R. Ritter from university of Florida proves through his first analysis dating back as early as the 80s. Every year in fact there's plenty of IPOs that hit the headlines for the sharp appreciations that the share price experiences on the first trading day. The way to calculate for each initial offering how much money has been left on the table, and so what entity this indirect cost has assumed, is the following: first the difference between the initial day market closing price and the offer price is calculated. It is important to notice that offer price and opening price are two very different concepts, although they are often confused. The former is the price at which newly issued shares are sold to the institutional and accredited investors before the opening bell, while the latter is the price that can be found on the exchange when the stock starts trading. The second step of the computation is to multiply the result found for the number of shares issued.

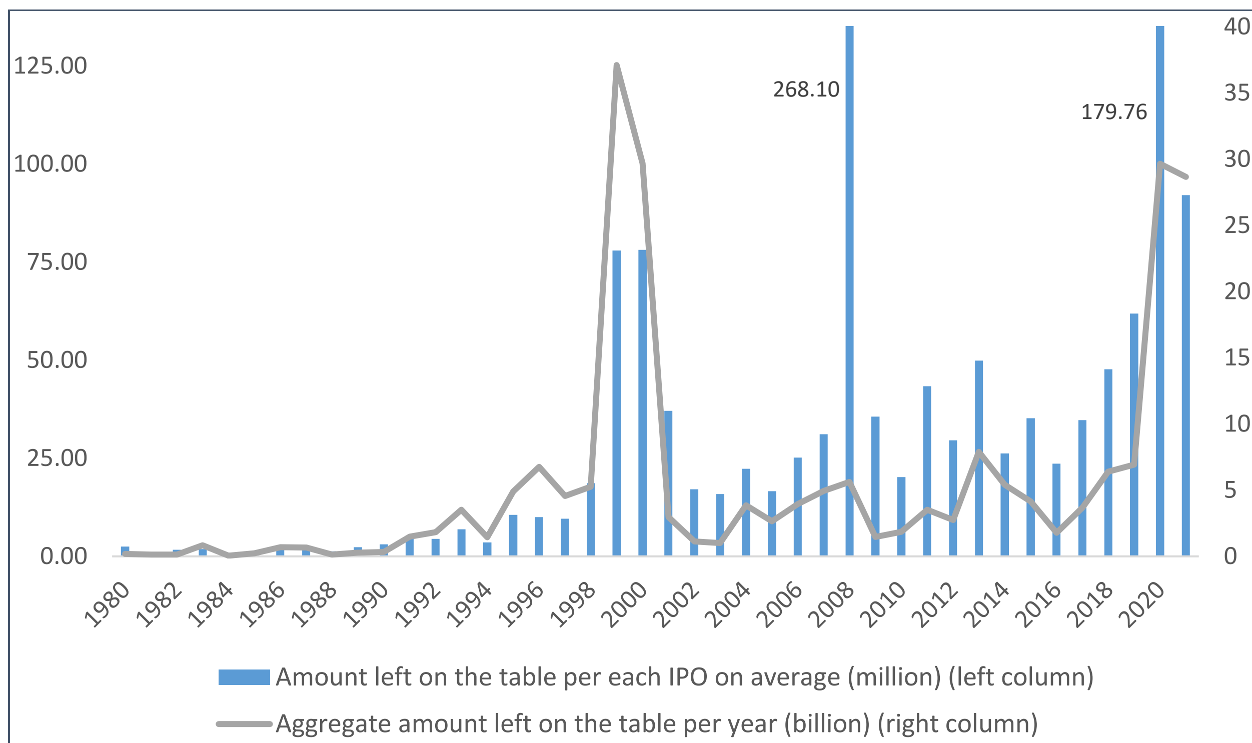

Figure 8 Amount left on the table per year and per IPO on average[24]

The above graph is very useful in analyzing this kind of indirect IPO cost and what its evolution over time has been. Two dimensions are displayed; the grey line depicts the total amount of money left on the table for each year while the blue columns consider how much has been lost for each IPO on average within a certain year. These second values are obtained by dividing the first ones, expressed by the grey line, for the number of IPOs that have happened over the year. It is interesting to notice that historically there have been only two times when the aggregate amount of money left on the table has been in the range of 30 billion annually; one was with the Dot com bubble in the early 2000s, while the second is taking place right now in the last couple of years. A relationship between the two dimensions is observable as the value for each IPO, displayed by the blue columns, follows on average the trend of the aggregate amount, with the exception of 2008. Even in that year characterised by the financial crisis and very though market conditions to bring a company public, a certain number of IPOs has happened. These IPOs, like all the ones before them, have experienced as well a certain degree of underpricing which has resulted in value lost; however it is likely that one, or some of them, have experienced extreme first day price appreciations that have contributed in distorting the calculation of the average. This resulted in the huge spike for 2008. One first main takeaway is how the Dot com bubble divides perfectly in two halves the picture; it marks a turning point as after it both

[24] Professor Jay R. Ritter, Warrington College of Business, personal analysis, https://site.warrington.ufl.edu/ritter/files/IPO-Statistics.pdf

the aggregate and per IPO value increase significantly. The last twenty years have been in fact characterised by a much more severe underpricing phenomenon than the first twenty. The second meaningful takeaway is that the trend has been increasing sharply in the last four years, from 2018 onwards; approximately since when Direct Listings started to appear and make their way to the headlines. This can signify that the appearance of this alternative way for a company to go public might have been prompted and accelerated by the growing entity of this problematic feature of IPOs. There is in fact a very peculiar temporary coincidence between the rise of Direct Listings and the excerbation of this issue; also considering how important this factor has been and how it is perceived as one of the main cons of traditional ways of getting listed, it appears definitely plausible that its sharp increase from 2018 can have given a strong push to Direct Listings. It is also impressive to reflect about how high of a cost this is for a company; in 2021 on average a firm going public through a traditional IPO had to expect to lose, or leave on the table for others to profit, about 70 million while in total the amount gets close to 30 billion. It is however right to make a remark concerning underpricing in IPOs. If on the one side it is true that a first day price appreciation translates into money lost by the company, we also have to take into account what happens in the exact opposite scenario. If upon listing the price drops, then it is those institutional clients who bought the shares who are going to suffer huge losses and not the company. The firm sold the new shares to the underwriters and in this way has managed to secure a certain amount of money, independently from first day market conditions. So, although the empirical data has demonstrated that IPOs have been flawed by underpricing, it is also true that with this traditional process of going public a certain protection is offered in case of downside; it is thus arguable that the first day gains "offered" to the underwriters' clients serve as incentive in case the worst scenario materializes. To conclude, this IPO feature that greatly damages companies if price appreciations occur, ends up protecting them if the opposite takes place.

Professor Jay R. Ritter from university of Florida has also gathered data regarding which banks have particularly underpriced IPOs over the years. The evidence he collected suggests that especially some prominent financial insitutions, found in the vast majority of processes, have had the tendency to cause significant first day price appreciations. The data refers to US IPOs from 2009 to 2019. The underpricing per bank is determined examining those initial public offerings where that bank served as leading institution.

Leading Bank	Number of IPOs	% Average Underpricing
Goldman Sachs	111	33.5%
Morgan Stanley	117	29.2%
Jefferies	42	24.2%
BoA-Merrill	49	23%
JP Morgan	97	22.3%
Citigroup	41	9.7%
Credit Suisse	35	3.3%

Table 6 Number of IPOs and average underpricing per bank[25]

The result is surprising; it's exactly the banks that are found in the majority of IPOs that have underpriced them the most. And the numbers are not minimal but on the contrary they are pretty significant, being in the range of 20-30%. This data underlines even more how widespread the underpricing phenomenon in IPOs is, especially among big and established players. It also prompts a reflection upon the fact that, choosing those institutions who are commonly perceived as being the best a company could possibly work with when going public, doesn't necessarily mean to obtain a high quality service, at least under the respect of pricing the issued shares. The consistency of this data gathered by Professor Jay R. Ritter across the years points out in fact that, more than a coincidence, it's about a systematical and widespread approach of handling the process by banks.

Adding this indirect expense to the direct ones that have been highlighted in the previous section, the difference between IPOs and Direct Listings becomes even more compelling. Accordingly, every company pondering over which method to adopt to go public, reasoning under the perspective of costs and various expenses connected, should keep well in mind this kind of indirect costs, as it can assume big proportions and have consequent effects that cannot be overlooked.

The underpricing phenomenon is not only present in the US but also everywhere else in the world, including Italy. The data gathered by Silvio Vismara of the University of Bergamo shows the number of IPOs happening from 1985 onwards with the average first day returns per year.

[25] Professor Jay R. Ritter, Warrington College of Business

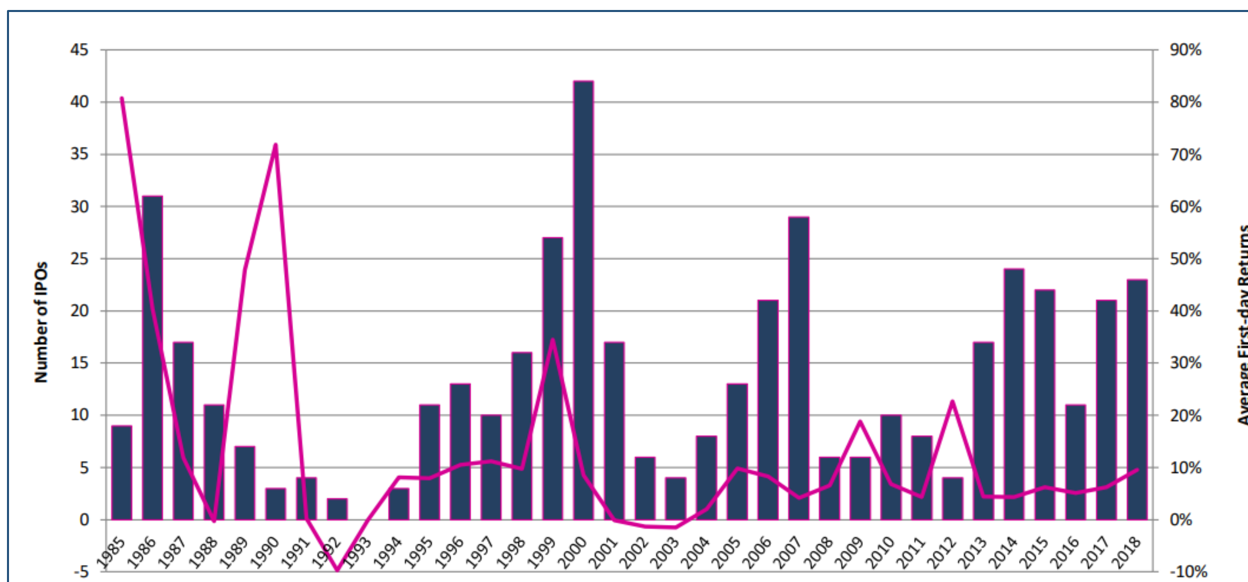

Figure 9 Number of IPOs per year and average first day returns in Italy[26]

Also in Italy the average first day returns easily reach and overcome 10% , pointing out how international and widespread this phenomenon really is.

As stated before, a systematic underpricing of the company's shares, who are then sold at a discount to the banks' institutional clients, has very frequently been connected to sharp first day share price appreciations, where the losing counterpart is the company going public who could have obtained much higher proceeds. An interesting analysis is to compare the mean first day price returns of IPOs over the years with the ones of the Direct Listings that have happened up to date, clearly making sure that there is a time overlap between the two numbers to make sure the analysis reflects similar market and macroeconomics settings; in case the second registered as well first day "pops" they would be of a complete different nature. In the first case, among other reasons as well, they are in fact due to a lower price being intentionally assigned to the securities sold, which provokes a steep and rapid increase over the listing day. Other factors could for instance be either that the free float is intentionally kept very small, so that demand is likely to assume higher proportions than the offer, or that existing shareholders are all prevented to sell their securities through very strict lock-up agreements, as to limit as much as possible selling pressure over the first times the stock is trading. In the second case instead there is no underpricing factor involved but it would be merely due to market dynamics. However, it would be desirable, just like in IPOs, to have a stable or moderately appreciating price over the first day, without extreme behaviours. A steep appreciation or depreciation could also signal that a wrong opening price was determined and that accordingly the market maker and

[26] Silvio Vismara, University of Bergamo

lead financial advisor operated in an incorrect way. Since in fact the price mechanism works through the analysis of live demand and supply forces, establishing the point where they spontaneously meet after usually several hours of observation, it isn't likely to arrive to a very distant true price, if the process is carried out in the right way; the point of following this process, rather than having the advising banks themseleves pricing the securities after thourough contacts with the interested buying parties, is to obtain the as authentic and natural price discovery as possible. At the same time, in case the price rose sharply, the shareholders wanting to exit their investments and selling their shares at the opening price, could have obtained much higher proceeds; it is a similar situation to the one of IPOs, although with many differences due to the specifics of the processes. If in the traditional process a strong price appreciation means money left on the table by the company, because there is also a primary offer component, with Direct Listings it simply means money left on the table by the selling shareholders who, had they waited slightly longer, could have exploited the price increase. It is only, as underlined many times, a secondary offer. In the following table the average first day returns of IPOs and Direct Listings have been analyzed. For what concerns the IPOs, the data provided by Professor Jay R. Ritter has been utilized; here the mean first day return has been classified as equal or proceeds-weighted. In the second case clearly greater importance has been assigned to those IPOs where the companies going public raised higher proceeds. For the Direct Listings, given their nature, there is no such distinction. There is however a fundamental difference in the way these returns have been calculated. In the former case, with IPOs, it is computed as the difference between first day closing price and offer price (where the offer price is the one the underwriting banks buy the shares from the company at) while in the latter it's the difference between first day closing and opening price. The returns calculated in these two manners reflect respectively what's been earned by buyers who bought from the issuers (underwriters) and selling shareholders. For both kinds of returns a final weighted average is displayed to account for the years where most listing activity was focused.

	IPOs		**Direct Listings**
	Mean First-Day Return		
	Equal-weighted	Proceeds-weighted	Equal-weighted
2018 (134 IPOs) (1 DL)	18.6%	19.1%	-10.2%

2019 (112 IPOs) (2 DL)	23.5%	17.7%	3.6%
2020 (165 IPOs) (3 DL)	41.6%	47.9%	-6.4%
2021 (311 IPOs) (6 DL)	32.1%	24%	0.12%
Weighted Average	30.36%	27.49%	-1.78%

Table 7 Comparison between IPOs' and Direct Listings' first day returns per year[27]

Looking at the data gathered, the difference between IPOs' and Direct Listings' mean first day returns is notable. Considering only the equal-weighted returns for comparability reasons, on the one side for the traditional method they have been very high, always exceeding 20% with only one exception. On the other side, they have been significantly lower with even negative values on two occasions. Although in fact in 2018 there happened to be only one Direct Listing, Spotify, which registered a negative return, the same happened also in 2020 with this time three Direct Listings taking place. And last year, in 2021, with six companies going public through this procedure, the average return was almost exactly equal to zero. The final averages difference is accordingly huge; slightly above 30% for IPOs and slightly negative for Direct Listings. The data shown proves that no systematic first day price appreciation phenomenon is present with this alternative method. This represents an additional confirmation that the live auction can be deemed as an effective way to get to a real price that reflects true market dynamics and interest among investors. Thus, it can be safely assumed by a firm pondering over the choice to get listed that a Direct Listing will imply an opening price very close to the real one, being determined relying on live market forces and not on buying interest from a limited group of institutional investors.

2.2 Share price performance and Volatility

Share Price Performance

Having observed that Direct Listings entail significantly lower costs, both direct and indirect, to carry out the process, now the aim is to find out whether they have

[27] Professor Jay R. Ritter, Warrington College of Business, MarketWatch, personal analysis https://site.warrington.ufl.edu/ritter/files/IPO-Statistics.pdf

been as beneficial also under the perspective of financial returns. For this reason the performance of the share price will be analyzed concerning the Direct Listings that have happened up to date. Besides looking at their returns in absolute terms, two indexes will be used as benchmarks; the S&P 500, being a proxy for the overall american economy, and the Renaissance IPO index. The latter is an index that allows investors to hold the largest and most liquid companies that have recently undergone an IPO. At quarter rebalancings new IPOs are included while older members are excluded. Examples of its current holdings are Uber, Snowflake, Airbnb and Zoom. In order to assess the financial returns that shareholders investing in Direct Listings have been able to obtain, these two benchmarks will be adopted; the second in particular can provide a direct and very insightful comparison with the most recent IPOs' performance. In fact, besides comparing the costs involved in the two different processes, for shareholders and companies it is of vital importance to have an understanding of whether there will be differences in terms of financial returns when choosing one over the other. In order to answer this question, as a first step the performance of the Direct Listings will be shown through the help of two graphs, but without yet the two benchmarks selected, which will be added later in the analysis. Two companies will be left out of the process; Slack, which has been aquired by Salesforce on june 21th 2021 and it's thus no longer trading, as well as Watford Holdings that chose to delist its shares which are thus as well no longer available on exchange.

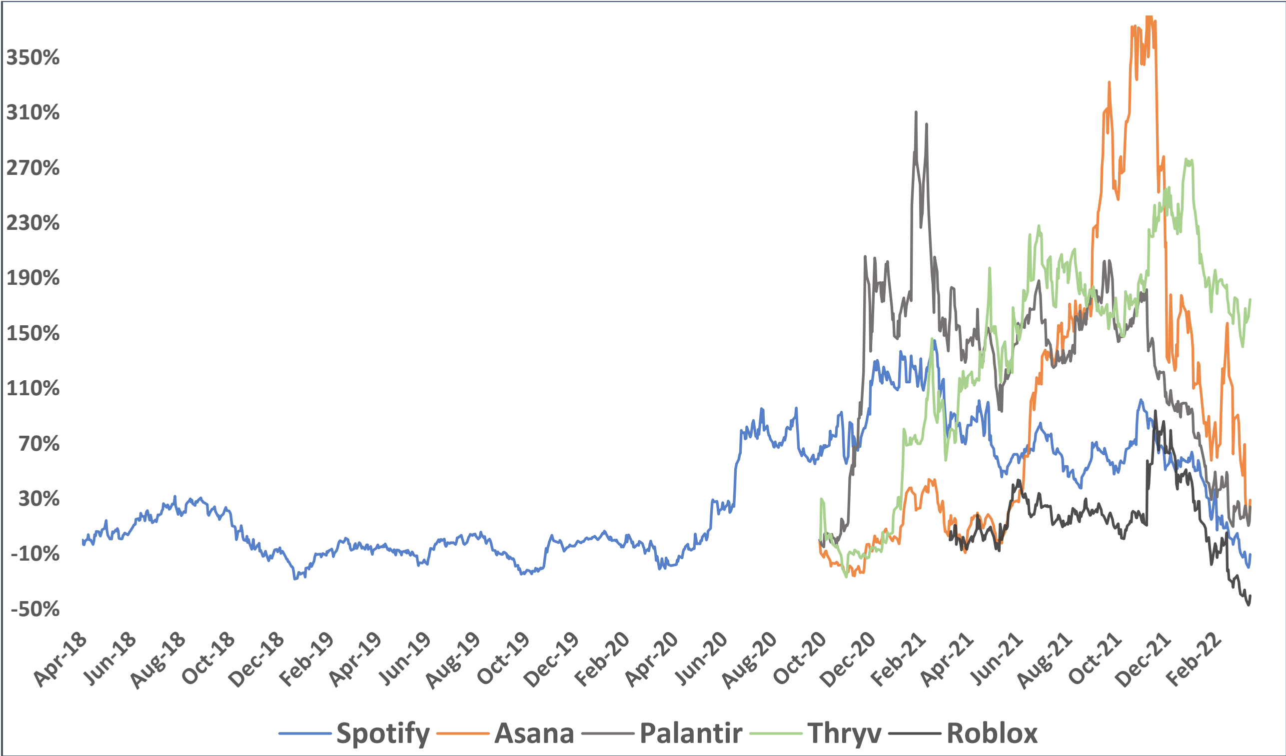

Figure 10 Cumulative returns part 1[28]

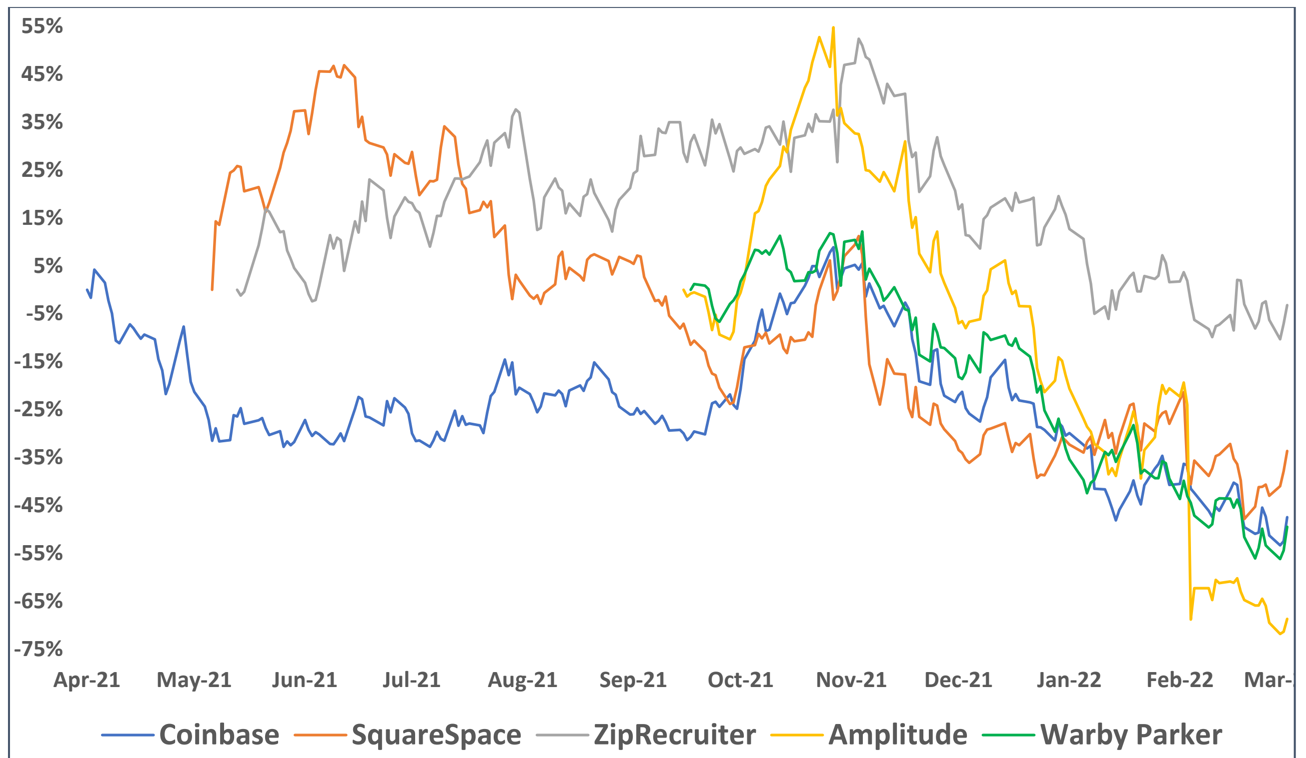

Figure 11 Cumulative returns part 2[29]

The two graphs exhibit a striking difference concerning the returns of the Direct Listings that have been analysed. The former takes into consideration the first 5 Direct Listings that have occurred, starting with Spotify in April 2018 through Palantir, Asana and Thryv, respectively in September and October 2020, up until Roblox in April 2021. They have all produced, since the moment of going public, excessive returns with in particular Palantir and Asana reaching the area of +300% in a very short time. With the only exception of Roblox, they have all at a certain time exceeded +100% in returns, which is an incredible performance for a stock, especially if we consider how short these amounts of time have been. The second group of 5 Direct Listings that have been observed registered instead more modest returns, although compared to the broader market they are surely notable. Of these 5 companies, 3 managed at a certain time to reach the area of +50% in return, while Coinbase and Warby Parker lagged behind, remaining prevalently in negative territory. However, there are not only company specific reasons that have determined and influenced the share price performance over time; a huge role was in fact played by events and market phenomenons on a much larger scale. Accordingly, to better explain the drivers behind these performances it is

[28] Bloomberg Data, personal analysis
[29] Bloomberg Data, personal analysis

necessary to look at the broader picture. When companies like Palantir, Asana and Thryv went public in September and October 2020 the overall market sentiment was very positive and in an upward trend; moreover interest rates were at an all time low. The Federal Reserve in fact in March 2020 with the outbreak of the Covid-19 pandemic had decided, in order to support the collapsing economy, to decrease significantly the federal funds effective rate (FFER), which is the rate commercial banks charge each other for overnight loans necessary to meet reserve requirements, as they are obliged to keep a certain percentage of their deposits in a safe account. This rate went from 1.58% in February 2020 to 0.09% in October 2020[30] when these 3 Direct Listings happened, which are by the way the ones registering the highest performances. Such a low rate means on the one side very low costs to borrow capital for both companies and private citizens in the country, while on the other side higher company valuations. When in fact assessing the intrinsic value of a company and discounting the future expected cash flows, a lower interest rate means a higher present value. That's the rationale behind usual stock price decreases when interest raises are announced. As just said the market and broader economy situation at the time supported very high valuations and multiples; a great indication of this is represented by the S&P 500 PE ratio. It indicates how many times the earnings the market is willing to pay for the index. After having swayed approximately between the values of 20 and 25 in the period from 2017 to early 2020, it sharply increased up to 39 on December 1st 2020[31]. This data perfectly explains how the market supported and participated in extreme price increases over very short time frames, like it happened for Palantir or Asana. Moreover, at the time, the focus was also predominantly on growth stocks belonging to the tech sector, just like the ones opting for a Direct Listing, that benefited from strong public attention and interest, unlike the value side of the spectrum that was not at the center of the picture at the time. There are in fact numerous examples of incredible bull runs of stocks of companies in the tech sector, from clean energy to artificial intelligence and space, just to cite a few of them. After the Covid-19 outbreak until early 2021 they registered exceptional performances. All these elements mentioned, from the overall positive market sentiment, extremely low interest rates, great attention over growth stocks as well as high company valuations, perfectly supported the case for the Direct Listings happening in 2020, which, as seen, registered incredible returns; Spotify as well, going public much earlier in 2018, registered the peak of its returns since the listing in the period of time across the end of 2020 and the first months of 2021. With all likelihood big fortunes were created for the investors who decided to take part in them.

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[30] St. Louis Fed Economic Data

[31] Nasdaq Data

The picture is instead somewhat different for the Direct Listings shown by the second graph; their timing refers in fact to 2021. The first half of the year for Coinbase, SquareSpace and ZipRecruiter while Amplitude and Warby Parker public offerings took place in September. Although some of these companies managed to obtain respectable returns, it is particularly from November that the situation precipitated for all of them, with even returns in the range of 100%/200% being wiped out over a couple of months. This is mainly due to large macroeconomic events that totally changed the economic environment. First of all the fear of inflation started to loom over the economy with the CPI increasing every month in a sustained way from around April 2021. It was however for the first time in October 2021 that it surpassed the 6% threshold, raising in a month of 6.2%[32]. Since then the month over month raises have only grown. As an answer, financial markets, which in the end are anticipation markets, started to discount possible interest rate hikes that the Federal Reserve could have adopted to curb inflation. Interest rate increases are deemed to be negative for the stock market as they compress the value of future discounted cash flows, thus reducing company valuations and bringing down stock prices. At the same time, in November 2021, the news of a new Covid-19 strain spread itself very quickly, causing panic and doubts among investors who started fearing new lockdowns and harsh measures. Consequently, some days of panic selling characterised the markets. Looking at both graphs, the sharp return decreases are well visible and have only gotten worse with the recent news of a war between Russia and Ukraine in eastern Europe. For these reasons, what it is displayed in terms of Direct Listings returns from November 2021, is in a sense not due to the specific companies but, on the contrary, it is connected to the global macroeconomic and geopolitical picture which has been driving the markets lately. The evolution from November 2021 is thus very difficult, if not impossible, to analyze focusing on the specific companies, their characteristics, businesses and future prospects. However, what can be concluded only by the observation of the graphs, before adding in the analysis other external benchmarks, is that all companies undergoing a Direct Listing, with very few exceptions, have managed to score impressive returns at least over the short term, before the market turmoil at the end of 2021. Then, surely, to account for the differences in returns of companies going public in the same moment, there are company specific elements. An example is given for instance by Amplitude and Warby Parker where the first managed to obtain a short term return of about 50% while the other declined almost immediately in negative territory.

[32] St. Louis Fed Economic Data

The analysis will go on taking into the picture the two external benchmarks previoulsy mentioned, namely the S&P 500 and the Renaissance IPO index. The table displays the company's returns, with different time horizons (3 and 6 months as well as 1 year from the direct listing date) and the ones of the two benchmarks, calculated on the same timeframe to make the comparison. It then reports the company's over or under performance with respect to both indexes. For example column 6 has been calculated with the data from columns 4 and 5; the company's return over 1 year has been compared with the S&P 500 return over the same period to understand the presence of over or under performance with the perspective of the firm. This comparison with the benchmark index, in case the company had gone public since a more limited span of time, has been realized over a 3 or 6 months period. For example Coinbase has gone public since less than a year at the time of writing; accordingly, its returns have been calculated over 3 and 6 months. To understand Coinbase's over or under performance, the company's 6 months return has been compared with the indexes' 6 months returns, derived over the same time clearly. And with the expression same time, as said before, here we mean the 6 months following the Direct Listing of the popular cryptocurrency exchange.

Company	**3M**	**6M**	**1Y**	**S&P 1Y** (6M or 3M if company data is missing)	**Over/under performance** (company perspective)	**IPO Ren. 1Y** (6M or 3M if company data is missing)	**Over/under performance** (company perspective)
Spotify	13.2%	18.7%	-3.5%	9.9%	-13.4%	10.68%	-14.2%
Asana	1.1%	-5.3%	260.6%	28.1%	232.5%	23%	237.6%
Palantir	164.2 %	132%	153%	28.1%	125%	23%	130%
Thryv H.	24.4%	118.8%	175.6%	28.9%	146.7%	20%	155.6%
Roblox	30.9%	26.4%	-40.3%	9.2%	-49.5%	-36.5%	-3.8%
Coinbase	- 29.9%	-20.8%	/	7.6%	-28.4%	2.5%	-23.3%
Square Space	-2.9%	-15.6%	/	14.15%	-29.7%	17.5%	-33.1%
Zip Recruiter	15.9%	40.4%	/	9.5%	30.9%	6.2%	34.2%
Amplitude	1.4%	/	/	9.7%	-8.3%	-10.9	12.3%

Warby P.	-10.2%	/	/	10.9%	-21.1%	-8.9%	-1.3%
Average	20.8%	36.8%	109%	/	38.5%	/	49.4%
Median	7.3%	22.5%	153%	/	-10.8%	/	5.5%

Table 8 Returns comparison between Direct Listings, S&P 500 and IPO Renaissance Index[33]

As seen before with the graphs, the company's returns have been remarkable generally speaking, with only few exceptions. Given the presence of significantly extreme values it is more appropriate to utilize the median as a better indicator than the average, which could be distorted by these outliers. Anyway, looking at the returns on a 3 month horizon, only 3 out of 10 firms have performed badly scoring negative returns; the median lies by 7.3%. On the 6 months' timeframe again 3 out 8 companies this time, as for Amplitude and Warby P. who went public very recently no data is available, had negative returns with the median assuming the value of 22.5%. For what concerns instead the returns over 1 year, the data for only 5 companies is available; it is characterized by extreme values in both directions as some exceed +150% while Roblox reported very negative performance (-40%). The situation appears somewhat different if we examine the returns comparing them with two benchmarks. Starting from the S&P 500 returns, calculated on the same timeframe as for the respective companies in order to make the comparison effective, a picture split in half emerges. On the one side there's companies like Asana, Palantir, Thryv and ZipRecruiter who have significantly outperformed the index. On the other hand, there's 6 firms who have instead moderately underperformed it, like Coinbase or Spotify just to mention a couple of them. Summing up, out of 10 firms, 4 have overperformed the S&P 500 while 6 have had a lower result. The median lies accordingly at -10.8%; had we considered the average it would have been remarkably positive but that's due to the influence of some extremely positive outliers who can somewhat distort the picture. For what concerns the IPO Renaissance Index, containing the most recent IPOs, the takeaway is similar as 5 firms have overperformed it and 5 had worse returns. The median is in this way better than with the S&P 500, as it is 5.5%. Also the negative values, regarding the companies that underperformed it, are way more contained than the positive ones who instead assume very high values.

However, even though here in the second case the median is positive, suggesting that the Direct Listings had a better performance than the companies undergoing an IPO and being grouped under the index, it can't really be highlighted a consistent better financial result: the number of them overcoming the index's returns is exactly equal to the one of those who lagged behind. Also for the S&P

[33] Bloomberg data, personal analysis

500 the situation is not crystal clear in one direction. Nonetheless here it can be concluded, thanks to the analysis of two elements, that the Direct Listings have underperformed the most popular American index. The first aspect is that we have a negative median (calculated on each company's over or under performance) slightly exceeding -10%, and to this we can add the fact that, out of 10 firms, 6 have had worse returns than the index; in this way the majority of Direct Listings has performed worse than the benchmark over the same periods of time.

Share Price Volatility

After having shed light on the returns that these companies have experienced, what can be said regarding the volatility of the stock prices of the corporations who chose to go public through a Direct Listing instead than a conventional IPO? As a good volatility measure the standard deviation was chosen as well as the beta, with reference to the overall market. Starting from the first, the following table reports the standard deviation for every firm, calculated on daily returns; the timeframe with regard to which the daily returns have been calculated is either 1 year or 6/3 months after the Direct Listing day for those happening very recently. The standard deviation of daily returns tells us in which range from the average the dataset is comprised. The higher it is, the more a certain stock is risky. To give a practical example, if the average of a stock's daily returns over a year is 2% and the standard deviation happens to be 4%, this means that it can be reasonably expected that the daily returns will be comprised in a range between -2% and 6%. The comparison between the firms opting for a Direct Listing and the S&P 500, in terms of respective standard deviations, can be seen as a comparison with the overall market while the second, with the IPO Renaissance Index, can be perceived as a comparison with the average value of the companies recently undergoing an IPO. The second metric, the beta, was calculated taking as benchmark the S&P 500 who serves as a proxy for the overall market. This indicator can be defined as the measure of the systematic risk, meaning the risk that cannot be diversified away, and it is an expression of the correlation between an asset and its chosen benchmark; a beta of 1 indicates a perfect correlation among the two while a value greater than 1 suggests an amplification of the asset's movements. The following procedure was adopted to calculate the beta; the starting point were always the daily returns of the companies and the index itself. Then the covariance of the two was calculated, followed by the variance of the benchmark. The final formula, applied to get the beta value, was covariance divided over variance.

Company	SD 1Y (6M or 3M if company data is missing)	Beta 1Y (6M or 3M if company data is missing)	S&P SD 1Y (6M or 3M if company data is missing)	IPO Ren. SD 1Y (6M or 3M if company data is missing)
Spotify	2.58%	1.26	0.97%	1.46%
Asana	3.89%	1.13	0.87%	1.99%
Palantir	5.28%	0.8	0.87%	1.99%
Thryv H.	5.14%	1.07	0.87%	1.99%
Roblox	5.57%	1.76	0.91%	2.32%
Coinbase	3.55%	0.86	0.72%	1.62%
SquareSpace	3.64%	1.73	0.64%	1.46%
ZipRecruiter	3.60%	1.6	0.66%	1.51%
Amplitude	4.18%	2.27	0.90%	2.15%
Warby P.	3.59%	1.23	0.88%	2.17%
Average	4.10%	1.37	/	/
Median	3.76%	1.24	/	/

Table 9 Volatility comparison between Direct Listings, S&P 500 and IPO Renaissance Index[34]

The analysis displays both measures of risk, standard deviation and beta, as being pretty high; a sign that these stocks belong to the growth spectrum of the tech sector and thus are characterized by higher levels of volatility. The average value of the standard deviation is just above 4% while the one for the beta is 1.37. The former shows that the daily returns can be reasonably expected to be comprised in a range of +/- 4% from the average while the latter highlights a significant amplification of market movements in these stocks'prices. They are in this way very risky. The standard deviation of the S&P 500, calculated over the same period, results to be significantly lower, as it could obviously be expected from an index representing the broad market. The standard deviation of the IPO

[34] Bloomberg data, personal analysis

Renaissance index is instead somewhat halfway between the one of the Direct Listing companies and the one of the market. Also this data was perfectly foreseeable as it is an index whose daily returns are subject to smaller movements than the ones of the single stock prices. The conclusion is that the stocks of the companies undergoing Direct Listings are very risky, as can be noticed from both the standard deviation of daily returns and the beta.

However, to make the analysis more complete, also the data of a champion of some companies undergoing an IPO will be taken into examination; in particular, a number of 20 companies carrying out an IPO from around 2018 onwards will be chosen and analyzed. The criteria for the selection will be the belonging to the growth spectrum of the tech sector as well as a similar business and activities, in order to be consistent with the ones choosing a Direct Listing. The sectors they belong to are for instance the following, with in brackets a company in the same field who undergone a Direct Listing: gaming (Roblox), Data management and analytics (Palantir and Amplitude), SaS (Asana and Thryv H.), Music streaming (Spotify), work related (ZipRecruiter) ecc. Of these companies the standard deviation of daily returns in the year after the listing day will be calculated; the goal is to compare the average for the IPOs with the one for the Direct Listings to see if the choice of the process has had an impact on the riskiness of the stock. The number of 20 seems a sufficiently large proxy to have a trustworthy average of the risk measure.

Company	Standard Deviation 1Y post IPO
Tencent Music	2.83%
Snowflake	3.81%
Dropbox	3.14%
Cloudflare	4.11%
Exasol	3.54%
upWork	3.28%
Cardlytics	4.44%
ZoomInfo	4.08%
BigCommerce	5.88%

Company	Standard Deviation 1Y post IPO
Mongodb	3.07%
Playtika	2.92%
Duck Creek T.	2.87%
Anaplan	3.66%
Alterix	3.25%
Fiverr	4.62%
Super League G.	5.9%
Sumo Logic	4.48%
Braze	6.18%

Unity	4.12%
Average	3.67%
Median	3.67%

Sprinklr	4.64%
Average	4.16%
Median	4%

Table 10 Peers group volatility measures[35]

As it can be seen, the firms chosen belong to the same sectors of the 10 undergoing a Direct Listing and can be considered as well growth tech stocks. From Snowflake, Sumo Logic, Exasol, Mongodb and Alterix that are data management companies and peers of Palantir, through Braze, ZoomInfo and Cardlyitcs providing software targeting marketing activities that are comparables of Thryv H., up to Fiverr and Upwork providing services concerning job offers and workplace and thus very similar to ZipRecruiter. In the same way companies like Unity, Super League G. and Playtika are involved in the gaming segment just like Roblox for what concerns the Direct Listings. To give another example, Anaplan, Duck Creek and others specialize in providing SaS, just like Asana does. Tencent Music was selected as comparable for Spotify.

The result is that the average of the daily returns' standard deviations for these 20 companies, relatively to the year after their IPOs, is 3.9%. For the 10 Direct Listings examined the value lied at 4.1%. They could for this reason be deemed a little more risky but at the same time it is true that the difference between the two numbers is not very large, but on the contrary minimal; thus it cannot really be stated that the choice of the Direct Listing process entails more risk than opting for an IPO, always taking into consideration similar companies who belong to the growth spectrum. Also, the number of 20 firms, used to get to the average final value, seems to be sufficiently large to arrive to a reasonable estimation, especially because, as underlined, they are active in the same businesses as the ones who chose a Direct Listing and they as well went public over the same period; in fact only companies doing an IPO from around 2018 onwards were selected. The two groups are accordingly perfectly comparable.

At this moment the first answers to the thesis question, namely what should be the ideal characteristics of a company deciding to go for a Direct Listing, can be formulated, at least with reference to the costs, returns and risks topics. Starting with the first, the result is very clear with a significant saving achievable through this innovative process; the main difference comes in fact from the absence of an underwriting fee that instead is replaced by a pure advisory fee, which is much smaller. The empirical analysis yielded a saving of about 50% compared to the corresponding traditional IPO process, only in terms of direct expenses.

[35] Bloomberg data, personal analysis

Moreover, the underpricing phenomenon contributes to increase the amount of money saved; in IPOs first day pops have been frequent and consistent. Only in 2021, on average, a company doing an IPO had to expect to leave on the table 70 million. Thus, summing up direct and indirect costs (underpricing) this leads to a meaningful difference. As a conclusion, only looking at the cost factor, firms wanting to save as much money as possible from the process of going public, seem particularly suitable for a Direct Listing. Going on with the second point, the analysis was conducted calculating the returns for all the Direct Listings that have happened until today for time intervals of 3 and 6 months as well as 1 year. These 1 year returns were then calculated also for two benchmarks, namely the S&P 500 and the IPO Renaissance Index, where the former serves as a proxy of the overall market and the latter of the companies recently undergoing an IPO. The evidence shows that the Direct Listings' returns have underperformed the ones of the S&P 500; 6 out of 10 Direct Listings had worse results than the American index. Moreover the median value of over/underperformances between the two (with the company perspective) lies at -10.8%. With regards instead to the IPO Renaissance Index, it is an equal situation with the same performance being registered. 5 firms registered better returns while 5 had worse results. The median here instead lies in very low positive territory; not enough to depict a clear picture. So, the first conclusion is that Direct Listings don't shine in terms of financial performance, which should be kept in high consideration by both companies and their shareholders, who might consider other alternatives. For this reason they don't necessarily seem appropriate for especially those companies who want to put great emphasis on financial returns for shareholders and keep financial performance as the most meaningful indicator of success. Concerning the second topic, namely the risk, the analysis was conducted first on an absolute level and then through a comparison with the risk measures of similar firms recently having IPOs; the time line these measures were calculated is 1 year after going public. In absolute terms companies choosing Direct Listings are pretty risky with the average standard deviations of daily returns exceeding 4% and also Betas being north of 1.3. However, comparing them as explained with similar recent IPOs, no bigger risk is displayed. The comparison of the two averages is in fact extremely close. Accordingly, a company pondering over the choice to get listed through a Direct Listing doesn't have to take into account more risk or volatility than it would have with a traditional IPO. Thus, Direct Listings are not for firms characterized by being more risk tolerant than others. These are the main conclusions concerning the risks and returns of this practice as well as, consequently, the characteristics of the companies choosing them.

2.3 Dilution from both the company's and investors' perspective

Direct Listings, as it has been explained in chapter 1, represent only a secondary offering with no new shares being created. On the contrary, all the existing shareholders who want to sell their securities on the first trading day are authorized to do so. Since no new shares are issued, there is no dilution for the current owners of a corporation, unlike it usually happens with an IPO. Here instead the newly issued shares have the effect of reducing the percentage ownership of the firm of its various shareholders who will in the end see their respective quotas decrease. The analysis of the topic of dilution will first assume the company owners' perspective and then the one of the firm itself. For the former, the comparison between IPOs and Direct Listings, with regards to this theme, is of easier interpretation as it's them who typically suffer the most from the issuance of new shares. For the latter it is instead more complex as, on the one side, companies' management teams act in the best interest of the owners but, on the other side, by choosing a Direct Listing, they give up on new capital being raised that could be employed to finance growth.

A good starting point is to better explain the implications of dilution in the eyes of those who own the stocks. Increasing the number of outstanding shares can usually happen in several different ways, with IPOs being only an example of them. There are in fact lots of financial instruments that have the peculiarity of being convertible, meaning that can be transformed into equity upon request and if certain conditions are met. Typical instruments of this kind include, among others, convertible bonds and preferred convertible stocks. Also on a time basis, the IPO represents only a single moment of those when dilution can happen; on the road to go public, a company typically faces many financing rounds where new capital is raised. From the initial seed round up to series E/F or even later, at each milestone new capital flows in and investors get diluted. However the dilution might take place, the effects are similar; first of all, as a direct consequence of the ownership quota reduction, the shareholders have less voting power in meetings. There are in fact certain quotas that have to be respected in order to be able to exercise control or, at lower levels, even participate in specific meetings and decisions. Thus, especially for the biggest shareholders, this can have an important impact on their position within the company. Another relevant consequence is the reduction of the earnings per share, at least in the immediate or short time frame; on a longer run, if the raised money is used wisely to fuel the

company's growth, the earnings growth can overcome the increase in shares outstanding and accordingly result in higher earnings per share. Usually what happens when this indicator decreases because of dilution, is that the share price declines as well since the markets perceive the share as less valuable given the reduction in earnings. There are in this way many consequent effects of dilution that have larger implications. It is thus clear that shareholders are better off without new shares being issued and dilution being caused. This reasoning applies in particular for those early investors like Venture Capitals who went through all the different financing rounds and already suffered from dilution as new funding was raised at successive stages. For them it is of great advantage to avoid a new dilution round with the initial public offering.

For what concerns the company's perspective, as mentioned before, the picture is more complex. If for the shareholders the lack of dilution that there happens to be in Direct Listings is surely a positive aspect, the same cannot necessarily be stated for the companies. Avoiding to issue new shares means not having a capital inflow that could be beneficial for the business and fuel future growth. Not all companies can afford that. It appears evident that those who choose to get listed with this alternative way must have either no need of additional capital and/or have sufficiently high cash reserves to face upcoming expenses and financing necessities. What is the evidence from corporations who didn't raise additional cash? In order to understand the ideal characteristics for a company to do a Direct Listing, concerning the topic of dilution (which, under the perspective of the firm, means no new capital issued), some elements of those who already went public in this way will be analyzed. The idea to be empirically proven is that a firm opting for this alternative public offering doesn't need additional capital and has sufficient cash reserves to operate comfortably. Accordingly, the following elements will be analyzed for the Direct Listings that have already happened:

1. The time between the last financing round and the Direct Listing
2. Money raised on the last financing round
3. The cash on hand, according to the Balance Sheet, at the latest available filing
4. The approximate time that the cash on the Balance Sheet would have been sufficient to cover (measured on operating expenses)

The first point, namely the time distance between the last financing round and the Direct Listing is very important because the shorter it is the more it conveys how the company thought of replacing the usual capital raise of an IPO with a financing round. It is not always the case that a company chooses to carry out a funding

event before the Direct Listing as it could also do that, for instance like Coinbase did, right after the initial public offering. The second value that's been taken into consideration is the size of this last financing round to understand how much money they decided to get before going public. The values were obtained thanks to Crunchbase, a database specialized in startups and venture capital activity. Moving on, to obtain the value of the cash on hand, the latest financial statements will be utilized; they are usually available under the form of an S-1 registration statement filed with the SEC just before the Direct Listing. Thus, the amount of cash refers to the latest period covered by financial statements before the public offering. To give an example, in the case of Palantir who went public on September 30th 2020, the latest available information on the cash position dates back to June 2020 at the time of the semiannual report. Similarly for Coinbase, who got listed in mid-April 2021, the last information on the cash position coincides with the 1st quarter report on March 31st of the same year. The same applies also to Squarespace who went public in May 2021. There is thus no perfect match between the cash position and the moment of the Direct Listing but it is anyway a good indication. This indicator is likely the most significant as it really gives an idea of the company's liquidity position and its ability to conduct operations. For what concerns the 4th point, the following calculation will be made; to understand approximately how much time the available cash would have been sufficient to cover expenses, the amount of liquidity is divided by the latest annual operating expenses available (typically selling, general and administrative expenses as well as R&D). The assumption is that in the immediate future these expenses would remain the same, or at least stay very close to the current level. Naturally, for simplicity reasons, other expenses like for instance financing ones as well as one off or extraordinary costs haven't been taken into account; so it's important to specify that this analysis doesn't intend to be extremely accurate but instead provide a good estimation. By doing this operation we can understand if the company's cash reserves would have been enough to cover a good amount of time, so that no new capital raise with the Direct Listing was necessary.

Company	Time from last financing round to DL	Amount raised	Cash available at latest filing before DL	Approximate time covered by cash (op. costs)
Spotify	4 months	/	477mn	~4 months
Asana	3 months	200mn	331mn	>1 year

Palantir	3 months	960mn	1497mn	>1 year
Thryv H.	/	/	/	/
Roblox	2 months	520mn	893mn	~1 year
Coinbase	1 month after the DL	1.25bn	2bn	>1 year
SquareSpace	2 months	300mn	200mn	~8 months
ZipRecruiter	7 months after the DL	550mn	135mn	~6 months
Amplitude	3 months	150mn	292mn	>1 year
Warby P.	1 year	120mn	260mn	~1 year

Table 11 Last financing round and cash available[36]

Proceeding with the analysis of the empirical data gathered, the first element observed is the time that has gone by between the company's last financing round and the Direct Listing. The majority of the firms have conducted a funding stage little time before going public while only two of them preferred to raise capital through a post public offering round. It is in fact not infrequent to see capital being raised post IPO; here both Coinbase and ZipRecruiter chose this way. The former immediately after the Direct Listing raising a considerable amount of money, exceeding 2 billion, while the latter some time after through the issuance of debt instruments maturing in 2030[37]. All the others, as said, decided to replace the conventional issuance of capital of an IPO with a financing round very close to the listing date, in order to face their financing needs. The median value among these companies lies at 3 months before the listing day. Exclusively Warby Parker went through the last funding stage as a private entity one year before. Thus, the tendency is clear, with the great majority of them receiving money from investors little time before becoming a publicly traded company. Also looking at the amounts raised in the last financing round before the Direct Listing, what emerges is that they are pretty consistent. However, they are very different among them because of course they reflect the specific company's needs and plans, and cannot for this reason be respectively compared. For several of these firms in fact they

[36] Crunchbase for the last financing round date and the amount raised, SEC filings for the cash on hand, personal analysis for the last column
https://www.crunchbase.com/, https://www.sec.gov/edgar/searchedgar/companysearch.html
[37] https://www.crunchbase.com/organization/ziprecruiter/company_financials

represent a moderate to significant portion of the latest year's revenues, as reported in their Income Statements. It's the case for example of Coinbase, ZipRecruiter, Amplitude and Palantir where the amount raised is very close or even overcomes the revenues registered in the previous year[38]. For others, like Squarespace it is more modest compared with the latest sales. Looking at all of them, the first group, namely the one characterized by very consistent amounts raised compared to the respective firms' dimensions, clearly prevails. The probably most significant value for the purpose of the analysis is expressed by the 4th column of the table and it consists of the cash balances these companies had. In order to get to these numbers, the latest financial statements before the Direct Listings were examined. This value, in combination with the last column, actually tells us if the companies needed to further dilute their shareholders with an IPO, to get additional cash to run the operations and grow, or if they could go public without issuing new shares. In fact, besides looking at the mere cash balances, what strikes the most is how much time they would have been able to operate relying on their reserves. This estimate has been calculated based upon the last annual operating expenses these firms reported in their financial statements; these operating costs include SG&A expenses as well as R&D. The premise is that it is reasonable to expect that these costs will stay at a close level also for the short-term future. Accordingly, by dividing the cash available with the last reported annual operating expenses, we can get an understanding of how much time the firm could have operated under normal conditions, without contemplating possible one off or extraordinary eventualities. Again, it is important to underline that, by considering only normal operating expenses, this analysis has the aim only to provide an estimation. The timeframe derived from the data suggests the need that they had to raise additional capital. The data obtained highlights in the majority of cases a capacity to sustain normal operating expenses for a period around or even larger than one year. This aspect really sheds light into the financing necessities they had, which of course with all likelihood has played a major role in the choice of the listing process. They didn't in fact feel the utility of additionally diluting existing shareholders in exchange for additional capital that they did not need to conduct operations. What Spotify's management declared at the time of the listing can be cited as an insightful example. Barry McCarthy, chief financial officer of the company, whose liquidity position was considerably good, expressed how not being able to raise capital with the Direct Listing wasn't necessarily a bad thing when you could do it just before the listing

[38] Wall Street Journal financial statements section

or right after, under better terms if the business had performed well in the meantime[39].

Concerning the ideal characteristics that companies opting for Direct Listings should have, the takeaway here is relatively straightforward. When pondering over which process to adopt in the transition from private to public, the theme of dilution, and so capital raise in the eyes of the company, should be carefully addressed. If the decision to prefer a Direct Listing over a traditional IPO is made, the firm needs to possess the following characteristics:

1) It needs to raise capital in a last financing round a relatively short time before the listing; the reason is in order to be sure to have enough cash to operate comfortably for a discrete amount of time. Or, alternatively, do it right after the Direct Listing, just like Coinbase did. The fact that all the companies analyzed went through this last funding event in close proximity of the listing (median value is 3 months before), makes this aspect a very important one for those who are considering taking the same route. Accordingly, they should carefully examine their likely future cash needs and proceed with organizing a financing round not too far. Also looking at the entity of the capital that was raised, this activity should be taken very seriously by Direct Listing candidates and planned in advance. In the end, in fact, the lack of capital raise of this alternative procedure has to be substituted in another way, which the empirical evidence gathered suggests being a close and sizeable funding round.
2) In addition to what's been mentioned in point one, Direct Listings candidates need to have strong Balance Sheets. In particular they need to to be very well positioned under the perspective of cash held. As shown before in fact, all the companies were able to cover their operating expenses in the majority of cases for a time close or larger than one year, relying only on their cash balances. The robustness of their Balance Sheets is thus a requirement that successful candidates have to possess. Of course, their solidity under this respect can be enhanced through the very last financing round but they need to at least have a good basis as starting point.

Summing up the content of this paragraph, Direct Listings don't appear suitable for those companies that need to raise new capital with the public offering and/or have weak Balance Sheets in terms of cash position. Under such conditions in fact, the lack of new capital with the Direct Listing would cause serious

[39] https://www.inc.com/guadalupe-gonzalez/spotify-cfo-direct-listing-ipo-slack.html

difficulties to the business continuity. Moreover, it is especially true for this kind of corporations that one of the main reasons to go public through an IPO is being able to obtain money from investors in exchange of newly issued shares. Accordingly, a Direct Listing, because of its main peculiarities, wouldn't make much sense for them. Instead, on the contrary, they seem to perfectly represent a good choice for those firms having carried out, or planning to do so, a financing round of significant entity little time before the listing and displaying relatively strong cash reserves; these don't have the need to cause further dilution to their shareholders.

As a final comment to this paragraph that addressed the topic of dilution with the aim of pointing out which kind of companies would be the best possible candidates, it's significant to mention the latest developments on Direct Listings. After many back and forth proposals, on May 19 2021 the Securities and Exchange Commission approved a modified version of the Direct Listings; if until that moment the process had been conceived only as a secondary offering, with no new shares being issued and new capital being raised, the authorities allowed a revised version consisting of a Direct Listing together with a primary offering. Thus, this new regulation would allow a capital raise concurrently with a Direct Listing on the Nasdaq Global Select Market and the NYSE. It's a hybrid way as not only the company sells its shares (primary) but also its shareholders (secondary). The first difference with a purely secondary offering is represented by the reference price; before it was determined jointly by the Designated Market Maker and the leading financial advisor based upon the company's secondary transactions history and it was meant to be no guarantee of the stock's opening price. Now, in case of a primary Direct Listing, the company has to submit a price range on the filed S-1 statement for the shares it's offering. Similarly to what usually happens with IPOs. The reference price will coincide with the lowest value of this price range. After establishing a reference price, on the day of the auction there are new rules as well. The company will have to submit an order, called a Company Direct Listing Order (CDL Order), for the securities it intends to sell; at least on the Nasdaq it is a market order where no price is specified. The price will be in fact obtained in the live auction. It's important to notice that a primary Direct Listing is allowed to execute only at a price that is close to the range specified by the company in its filing; it must be comprised in a band which is at or above a level that is 20% lower than the low end of the price range and at or below a level that is 20% above than the high end of the price range. If these requirements are not to be met, the stock exchange is required to postpone or

reschedule the offering. Initially, the price determined in the live auction had to be included in the declared price range, in order for the process to be valid. However, after Nasdaq filed a new proposal asking for more price flexibility, the new conditions were granted by the SEC. For what concerns the NYSE the rules are moderately different, starting from the kind of order the firm is required to submit; if on the Nasdaq it's a market order, here it’s a limit order and the way it’s called is Issuer Direct Listing Order (IDO). It also covers the total amount of the shares sold and its limit price corresponds to the lower end of the declared price range. Lastly, there is an important requirement to take part in a primary Direct Listing; the value of the unrestricted publicly held shares before the offering, combined with the market value of the shares to be sold by the company on the listing day, has to be equal to at least $110 million. This value is calculated using a price equal to the low end of the price range disclosed in the registration statement.

These hybrid Direct Listings, consisting of both a primary and secondary offering, are deemed as the new frontier of this innovative way to go public and have been hailed as the Direct Listings 2.0. They would combine the advantages of a Direct Listing with the opportunity to raise cash, and they represent a natural evolution of a process that tries to improve the way it works as well as overcome the associated shortcomings. However, no one has yet attempted to follow this even newer path, so that for the empirical evidence we still have to rely on only the standard procedure.

Direct Listings and Venture Capital backing

As it was underlined in the previous section, as well as over chapter one, dilution is a serious issue to keep into consideration, not only for the company but also for the shareholders. For the former, it relates to the fact that no new capital is being issued to further finance growth and future business plans; accordingly, as just demonstrated, in order to be an eligible candidate, the company needs to possess certain characteristics like having just carried out a last significant financing round and having a particularly strong balance sheet, to be sure to cover operating expenses for a good amount of time. For the latter it has implications in terms of maintaining the same ownership of the company, as well as other not so secondary aspects like voting power for instance. For investors another element that plays a

major role when evaluating the advantages of a Direct Listing over a conventional IPO, is represented by the absence of lock-up agreements and thus the chance to sell immediately their securities. This is especially true for an important category of investors, namely Venture Capital firms. They are very frequently present since the very early stages of promising start-ups and bring together their capital and expertise to enhance growth. Very often, as already mentioned with the example of the prominent venture capitalist Bill Gurley, they have been on the first line to advocate for a shift from the Investment Banks led process. This is because they are among the ones who would benefit the most, for example from the absence of dilution and strict lock-up agreements. Accordingly, for a firm about to go public, the presence of many Venture Capitals among its shareholders could have a more or less significant impact on the choice of the procedure. The goal of this paragraph is exactly to analyze the correlation, if present, between a high number of VCs and the companies going for a Direct Listing. On theory in fact, for the reasons expressed before, it appears likely that Direct Listings are positively correlated with firms backed by high number of VCs. For the research question, namely the ideal characteristics that a company should have to opt for this innovative procedure, this is relevant because it could signal that those firms that are backed by many VCs are more likely or have a more compelling reason and case not to choose a normal IPO. In this section this very question will be addressed.

The analysis will thus proceed by establishing a comparison between the IPOs and Direct Listings that have happened up to date, with respect to this theme. The percentage of IPOs from the year 2018 onwards that have been backed by VCs will be compared with the one of the Direct Listings that have as well received support from this peculiar category of investors, before going public. Comparing the two values that will be obtained should yield an estimation of whether Direct Listings tend to be preferred in case VC backing is present. As a consequence, if the result proved to demonstrate the theorical thesis that has been formulated, this feature could be added among the others gathered until now, in order to draw the perfect profile of a suitable Direct Listing candidate. Professor Jay R. Ritter, whose expertise has been used as source also in other parts of the dissertation, gathered the data concerning the amount of IPOs that have received previous support from VCs. For what concerns Direct Listings instead, the information has been mainly derived through Crunchbase and for simplicity reasons the presence of VC backing has been considered only if one or more major investor of this kind

was present. Small VCs have not been taken into account; the popular platform and database about private and public firms doesn't in fact mention small ones.

In the following table, for every Direct Listing taking place from 2018 onwards, the presence of VCs has been reported, including for completeness also the names of these investors.

	VCs	**Names**
Spotify	yes	Manhattan Venture Partners, Goldman Sachs Investment Partners
Watford	no	
Slack	yes	Social Capital, GV, Kleiner Perkins, Thrive Capital, Softbank, Dragoneer Investment Group, General Atlantic
Asana	yes	Manhattan Venture Partners, Silicon Valley Bank, Generation Investment Manager
Palantir	yes	Kortschak Investments
Thryv	no	
Roblox	yes	Andreessen Horowitz, Index Ventures, Meritex Capital Partners, Altos Ventures, Dragoneer Investment Group, First Round Capital
Coinbase	yes	Tiger Global Management, Institutional Ventures Partners
Squarespace	yes	General Atlantic, Index Ventures, Accel
Ziprecruiter	yes	Institutional Venture Partners
Amplitude	yes	Sequoia Capital, GIC, Institutional Ventures Partners, Battery Ventures, Benchmark
Warby Parker	yes	T. Rowe Price, Tiger Global Management, General Catalyst, Durable Capital Partners

Table 12 Direct Listings and Venture Capital backing[40]

The result is that out of 14 Direct Listings, only 2 haven't received precedent backing from major VCs. The only companies who didn't receive financing from significant exponents of this investors class are Watford Holdings and Thryv

[40] Crunchbase

Holdings, who are also smaller and less popular compared to the others. Without looking at the differences across the single years, it can be concluded that 83% of the Direct Listings have concerned firms who had as shareholders important VCs, which, again, might have influenced or represented a somewhat strong reason to opt for this method. The following graph displays the numbers year by year for both options of going public. For example, the two percentages for 2018 express how many companies had received VC financing; the totality of those choosing the innovative method and 67% of those selecting the traditional one to get listed.

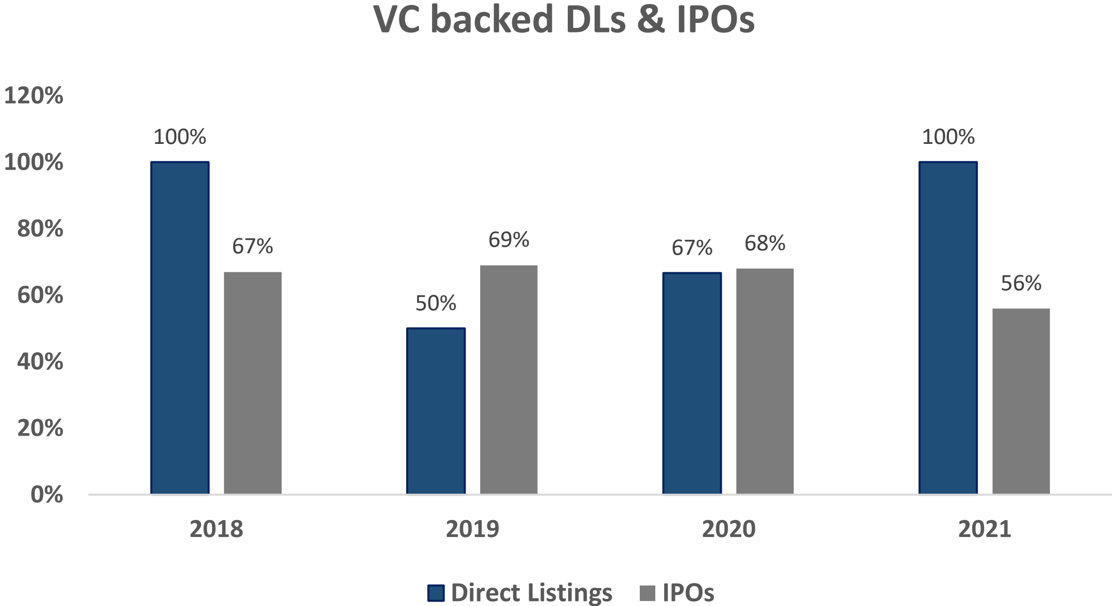

Figure 12 Comparison between VC backed Direct Listings and IPOs[41]

The graph displays how Direct Listings have shown higher VC backing than IPOs, especially in 2018 and 2021. For the other 2 years the values are pretty similar. However, these averages don't count the specific amounts of listings happening every year, so that the same weight is always applied even though the majority of Direct Listings is concentrated in the latest times. For instance in 2018 that 100% value refers only to Spotify. Thus, the picture might be slightly distorted. For this reason, it is more accurate to derive a final weighted average of all the years for both processes, where the weighting considers the amount of listing activity going on in every period. Doing so, a higher relevance will be assigned to 2020 and particularly 2021 for Direct Listings if we consider their distribution over these 4 years (2018=1, 2019=2, 2020=3, 2021=6). The IPOs have clearly much higher

[41] Professor Jay R. Ritter, Warrington College of Business, Crunchbase, Personal analysis

numbers (2018=134, 2019=112, 2020=165, 2021=311). After carrying out the calculations the weighted averages are respectively 83.35% for Direct Listings and 63% for IPOs. This result confirms the hypothesis that had been done from a theorical standpoint, namely that a larger presence of VCs can have a moderate to strong impact on the choice of the process, as they are one of the counterparties set to benefit more from a change. The difference among the two values found is not remarkably high but at the same time it cannot be overlooked.

As a conclusion to this section, a new feature can be added to depict the perfect profile of a suitable Direct Listing candidate, besides the ones that have already been singled out. Companies with a high VC backing might be incentivized and have a stronger case to refuse a traditional IPO. These investors would in fact stand out to benefit a lot from the absence of dilution and lock-up agreements. Accordingly, the firm might be more prompted and have more interest, acting for the benefit of its shareholders, to pursue a Direct Listing. And the empirical evidence seems to support this statement.

2.3 The role of the Investor Education; are Direct Listings suitable for companies with a low popularity and a weak brand?

After having explored first pure monetary factors associated with Direct Listings, like its direct and indirect costs, share price performance and volatility, as well as having dealt with the topic of dilution, now the attention will be turned to another significant difference between the two processes: the theme of the investor education. It is an activity that has traditionally covered a very high degree of importance in all stages of a company's life and in different contexts and continues to do so for good reasons. Every company in fact needs to convey its story to investors explaining what its objectives, mission, vision and future accomplishments are it intends to carry out. Thus, it's about transmitting the whole story on why that company stands out from the others and why an investment would be a great opportunity for them. And this happens on a continuous basis from an initial stage, when it is still a start-up and needs to conduct the first financing rounds, up to the moment of getting publicly listed. Here in particular, the investor education activity has played a meaningful role in IPOs. The investment banks advising in the process have typically spent much time and efforts in organizing the so-called roadshows where intensive meetings

with institutional clients take place. Direct Listings have instead assumed a completely different approach with regards to this topic. In the following section the differences will be examined, and special attention will be dedicated to analyzing the ideal characteristics of a candidate for a Direct Listing, relatively to this theme.

Investor Education and Roadshows have been reserved an important spot in the usual IPO process as they represent the crucial moment of approaching investors and conveying them the key traits of the company. They can be formally defined as a concentrated marketing effort that typically begins shortly after a preliminary prospectus is filed, lasts one to two weeks, and consists of a number of live meetings between the management and prospective investors[42]. Over this time business and financial aspects are discussed in depth as well as the proposed offering and planned use of the proceeds. This last element, namely the proposed offering, applies only to the so-called Deal Roadshows where securities are offered. In fact, another kind of Roadshow exists; the Non-Deal Roadshow where there is no planned equity or debt securities offering but it is only an instrument to attract new investors, revamp the company's story or reveal future objectives. From a legal perspective in an IPO process, the Roadshow can be started only after a registration statement has been filed with the authorities; however, on a practical level, it seldom takes place before a preliminary prospectus has been made available for investors. As mentioned before, it is a detailed marketing presentation made up of slides and/or multimedia material to strengthen the investment case. The format and size tend to vary a lot although what's pretty standard in the industry are both the procedure to create it and the main information that the management and the underwriters (who, purchasing the shares and reselling them later, want to undergo as little risk as possible and thus have a high interest that the right investment story is transmitted) want to make sure are covered in it. Starting with the former point, the Roadshow presentation is usually realized by the underwriters who will prepare a first draft and then work closely with the issuers to improve or modify it, according to the feedback received. At the same time, also the legal departments have an important role as there are many regulations applicable, and potential liability for statements and expressions used in the presentation may ensue. Once the marketing presentation has been prepared and approved by all parties involved, the Roadshow commences; it's the lead underwriting banks who organize and plan its details as

[42] https://www.freewritings.law/wp-content/uploads/sites/24/2018/11/IPOs-Follow-On-Offerings-Road-Shows-and-Earnings-Guidance_FAQs-on-Pub....pdf

well as it is not infrequent that they actively participate in the meetings with prospective investors. Over these meetings, moving on to the second point, the main goal is to make sure the investors get to know well the company, its unique characteristics that make it stand out from the competition as well as the future plans it has. The main points that have been traditionally addressed in Roadshows can be summed up with the following:

- Company's history key milestones
- Information about the management team
- Historical financial and sales performance
- Mission and vision
- Future goals and objectives
- Potential growth and projections of various kind
- IPO's targets and use of proceeds

The range of information targeted is very wide and can be divided in a part relative to the past and what's already been achieved by the company and a more forward-looking section. In the latter, interesting forecasts and timelines to reach certain goals are disclosed, and they result to be very appealing for investors as they are able in this way to get a real sense of what future awaits the company. What's also very important for them is to personally meet the management team, as otherwise they could be reluctant to invest. An ideal Roadshow would be concluded with a high interest registered by the institutional investors that took part. Already during this couple of weeks in fact talks start going on about shares allocation and the price at which the different investors would be interested. The precise and in-depth buying interest will then be formally registered with the bookbuilding activity that will allow to establish a price range. The performance of the successive bookbuilding phase will be a mirror of how successful the Roadshow has been. It is crucial to convey the right story and highlight the company's main points and elements that make it stand out, especially for those that are not so known to the wide public. The powerful marketing tool which is the Roadshow has accordingly an informative and educational purpose towards investors, that couldn't be fulfilled in any other way; this is particularly true for those firms planning to go public which are not that known and popular. For them, thanks to the help of the underwriters assisting in the process, this is a unique opportunity to reach and establish meaningful connections with accredited investors, that could potentially become their supportive and long-term oriented shareholders.

Direct Listings have totally revolutionized the approach towards the Investor Education process and the Roadshow. Surprisingly, the latter is not anymore

present and the Investor Education has instead been condensed into one main event; the investors' day that is held directly by the company. This embodies perfectly the functioning of Direct Listings where no new shares are issued; as a consequence, there is not anymore the purpose of winning institutional investors who will be allocated a part of the new securities, buying them from the underwriters. Now companies only pursue the goal of spreading their story and making themselves known, to make sure that there happens to be enough buying interest on the first trading days. However, they do it in a much less intensive way than a two weeks Roadshow characterized by frequent meetings with potential investors. An investor's day is instead organized, and it typically happens online. As outlined in chapter 1, it is an event open to everyone, both retail and institutional, and it's managed directly by the company going public. Of course, the advising banks will still provide their useful help in various phases and will counsel the company on how to best "sell" their compelling investment case.

Nonetheless, what stands out is that a company with a low brand awareness and popularity wouldn't be able with a single investor's day, held online, to really attract interest and win investors. It is in fact simply not enough to convey its entire value proposition and peculiarities, if it's not already well-known. And this applies especially for institutional investors who require one-on-one, or at least in small groups, meetings in order to be fully convinced and prompted to trust the management's vision and open a position. They are in fact usually a category of investors that receive and examine on a daily basis huge quantities of materials and presentations promoting one company or the other; accordingly, they can't be possibly reached through an online event of a couple of hours, like in the case of Spotify, where the company addresses retail investors as well. The exception to this statement can be represented by those companies that benefit from high brand awareness and recognition and that don't particularly need to promote themselves, as everyone is already perfectly aware what is their active business and what differentiates them from the others. An example of this kind of companies is exactly the previously mentioned Spotify that in 2018, when it carried out its Direct Listing, had emerged as the leading digital music service provider. Everyone in the sector, and not only, knew it thanks to the high global brand awareness that it enjoyed. What also contributed to its status and popularity was the remarkable user diffusion, as it already counted millions of people making use of its services, and the social engagement, with very high search rates and attention as the data from Google Trends shows[43]. All these elements combined

[43] https://trends.google.com/trends/explore?date=2014-01-01%202022-04-02&geo=US&q=spotify

make up for a perfect case where the use of a Roadshow was not needed to reach all the potential investors. On the contrary, a single investor's day was enough to direct and focus the attention on their upcoming listing as well as to revamp some key sales talking points that made them already stand out.

Thus, the objective of the following analysis is to evaluate the popularity of the companies who performed a Direct Listing. The aim is to understand if, given the absence of a thorough Roadshow, it can be chosen also by firms that don't necessarily enjoy high brand awareness, user diffusion and social engagement. The absence of an intensive Investor Education process seems in fact on a theorical level as a significant limitation for those companies that belong to the opposite group of Spotify, just to name one. Here as follows the empirical evidence will be gathered. The question is whether or not the observed data will match what on a theorical level appears evident. In order to assess their popularity and brand strength these elements will be taken into consideration:

1) Unique business proposition and mission
2) User adoption and diffusion
3) Brand awareness and recognition
4) Venture Capital backing

The first one relates to how special and different from the competitors a company's business and mission is; on average in fact, the more a certain company differentiates itself from the others and proposes something unique and revolutionary, the more it is likely that it will be well-known and popular in its sector. A firm like Coinbase, a cryptocurrency exchange based in the US, offers something completely different and original with respect to what there had been on the market until that moment, for instance concerning the digital payments industry. Roblox, who went public in March 2021, described itself as a site created by gamers for gamers. It offers something that cannot be found in any other similar company; the mission consists of offering an immersive platform that allows its users to develop and/or play millions of 3D games, having the chance to interact and relate with others in countless ways. And there are many examples of this kind among the Direct Listings up to this date. This first aspect will be combined with the user adoption and diffusion relatively to the services offered. It is clear in fact that as its services are adopted by an always increasing number of people and on an always larger geographical scale, the notoriety will soar as well. Already a significant presence of these two elements would make a case for a renounce of an intensive Roadshow and Investor Education process. Moreover, if also a strong brand awareness is present then it is easy to comprehend why the

companies mentioned throughout the research have chosen to opt for a Direct Listing, where little emphasis is placed upon reaching out to new investors and spreading the investment story. For what concerns the brand awareness, among others, also the social engagement will be considered, as shown by the data provided by Google trends. The last point relates to the support that they have received throughout their lifecycle from Venture Capitals. Since it can be affirmed that they all belong to the tech sector, the role played by VCs is a major one; in fact, in this fast moving and highly competitive sector, the companies that have received financing from the most prestigious VCs tend to be much more known by all kinds of investors. Receiving the support from a top VC, like for instance Andreessen Horowitz or Sequoia Capital, is an automatic form of validation and incredible source of advertisement. Accordingly, these early-stage financiers can have a direct impact on the company's needs to reach out to investors and engage in an intensive Investor Education activity.

The analysis will now proceed by examining in depth these four factors for a sample of six companies in order to provide an answer to the research question of this paragraph. These six companies have been chosen in different sectors and making sure that they were diverse in terms of characteristics and features.

Spotify: in April 2018 it was positioned as the largest global music streaming subscription service. Their mission was to provide users with a highly customizable and effective music search and discovery engine, allowing at the same time artists to display their works. Launched in 2008, by the time of the Direct Listing they counted 159 million monthly active users and 71 million premium subscribers. These numbers, according to their estimates, were almost double the ones of their closest competitor. Their services were in this way widely spread with very high numbers of people relying on them on a regular basis. Regarding their geographical presence they were available in 61 countries and further expanding[44]. Their brand awareness was as well considerable also looking at the data provided by Google trends, which shows how, on the search engine, the attention for the word Spotify was very high and constant through time. It is calculated on a relative basis with the value of 100 representing the highest possible interest. Spotify was almost the entire time above 50.

[44] SEC S-1 Form Spotify February 2018

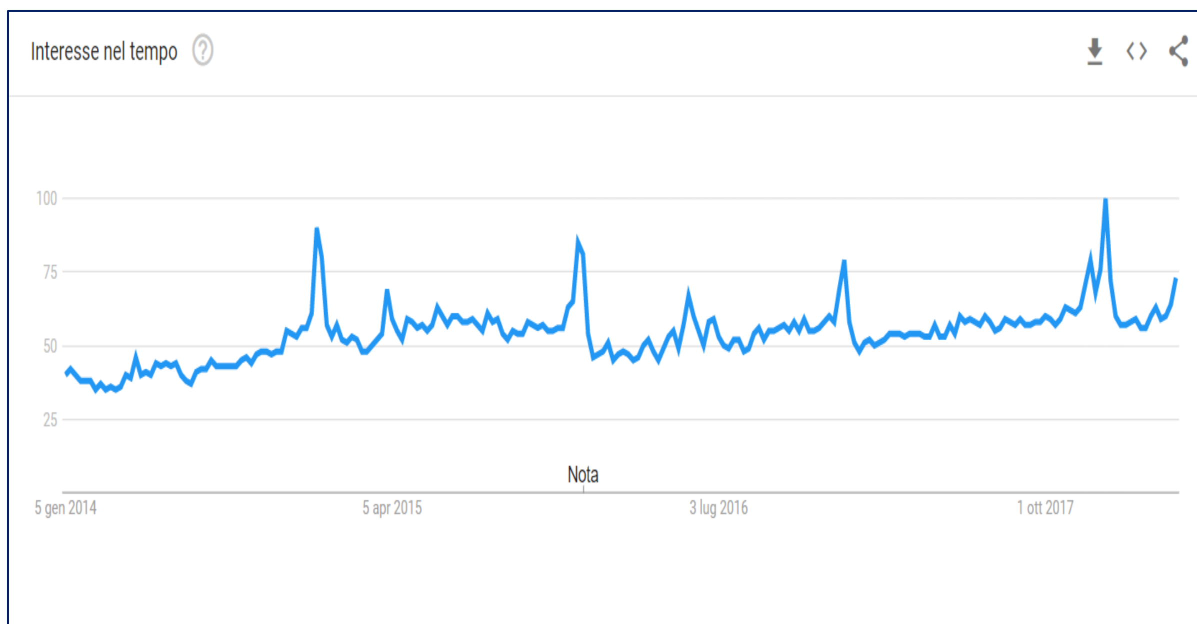

Figure 13 Spotify interest over time[45]

Spotify scores pretty well in all the three categories which have been under examination, making it a reality with a very strong brand, well-known business and story as well as a large user base. Among its most prominent VCs, backing the music streaming giant well before 2018, figure Goldman Sachs and Manhattan Venture Partners.

Palantir: It is a very singular company founded in 2003 in the Silicon Valley. They were first active assisting US government agencies in counterterrorism and cyber security operations, providing cutting-edge platforms for complex data management and analysis. They developed strong ties with national entities vital for the security and functioning of the entire country. They were in fact positioned from the start as a company helping organizations to work in times of stability as well as of crisis and uncertainty. They later started to serve also commercial institutions, always keeping the focus on companies and not retail customers. Just before going public, they were working with 125 important institutions and companies, in the US and allied countries. Their software had in fact been adopted across 36 different industries and more than 100 countries[46]. Palantir was accordingly deemed as a gem of the tech sector, especially for its active involvement in very delicate themes for the western world. Its software platforms were becoming part of the organizations they served and they had a strong support from governments. Besides a unique business proposition and mission, as well as high user adoption and diffusion, they also had a good brand awareness and

[45] Google Trends
[46] SEC S-1 Form Palantir August 2020

recognition. To this had contributed the eccentrical figure of the CEO, Alex Karp, who had often made statements that had hit the headlines. Thus, across the tech sector the name of Palantir had become popular, with often polarized visions on the company that helped to spread even more the values they stood for. Moreover, they had been backed over time by popular VCs that as well supported and advertised the company's mission; they are for example Founders Fund and Manhattan Venture Partners. However, Palantir hasn't received support only from VCs over its several financing rounds; important companies like Sompo Holdings, one of the three main Japanese insureres, or Revolut, have invested in the software provider.

Roblox and Coinbase: Roblox and Coinbase will be presented together as they both realized a business idea that was not to be found with any other company. Thus, they share their being extremely well-known among investors after having hit the lines for their disruptive and future oriented goals. As previously mentioned, Roblox had the goal of providing an immersive platform where gamers could create and/or play countless 3D games, relating and connecting with others. It addressed both children and adults who could apply their creativity and earn from gaming. At the time of the Direct Listing, they were displaying impressive numbers; more than 36 million people were coming every day to their platform with around 7 million active developers[47]. Key traits of their platform were the identity of every user, thanks to the use of avatars and other features, the chance to access it from anywhere, the immersive and involving experience, the huge variety with more than 18 million available contents and the contact with other players. It offered something unique that no other gaming company or platform had yet brought to the market. Accordingly, it benefited from a soaring notoriety not only in the US but also in many other parts of the world: in September 2020 its users came from 180 different countries. Also concerning the brand awareness and recognition it was notable throughout the time, before and after the Direct Listing, as the data from the United States show. Adding up to make a perfect case for an absence of a thorough Investor Education there is the support received from VCs of the caliber of Andreessen Horowitz and Altos Ventures.

[47] SEC S-1 Form Roblox November 2020

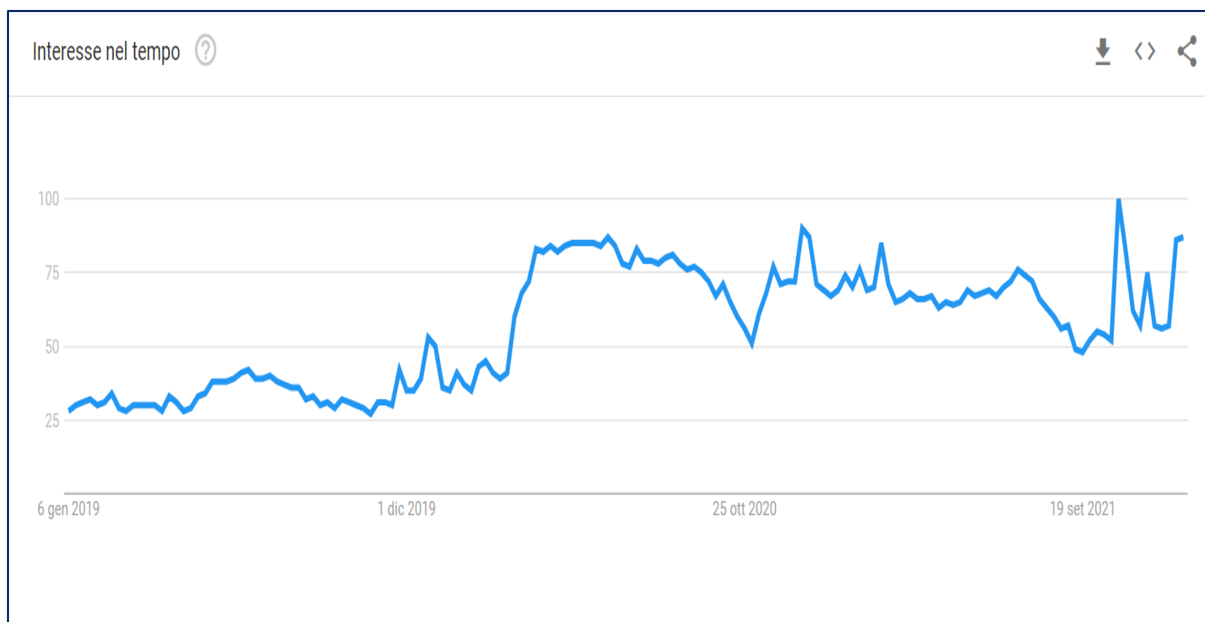

Figure 14 Roblox interest over time[48]

Coinbase instead has been hailed as the first regulated cryptocurrency exchange, with its headquarters in the US. It started in 2012 as Bitcoin, the first digital asset, emerged, and it has the mission of creating an open financial system for the entire world. The platform they developed allowed at the time of the listing more than 40 million people, among which 7000 institutions, to take part in the nascent crypto economy[49]. And their user base represented an incredible amount of countries, with their popularity soaring everywhere in the world. They definitely benefited from a stellar brand and reputation for their unique vision of the future.

Just like Spotify, Palantir and Roblox, there are other examples of this kind among the companies that chose to opt for a Direct Listing; Coinbase and Slack for instance had very similar original features and elements that made them one of a kind companies. Other firms instead were less known and popular, with a less strong brand and investors' appeal. Here as follows two cases of this second category are analyzed.

Amplitude: it's a product analytics service that enables companies to better understand consumers' behaviors and improve business outcomes. They have developed special instruments and tools that provide precious insights on key metrics like user retention, conversion and engagement. The main goal is thus to connect the dots between products and business, by analyzing data generated by products as well as in-product behavior. When they got listed, they were serving 1200 clients globally, among which 26 of the Fortune 100[50]. Moreover, their

[48] Google Trends
[49] SEC S-1 Form Coinbase February 2021
[50] SEC S-1 Form Amplitude August 2021

analytics tools had been ranked often as first in their category and in the first places for what concerns software in general. Key differentiating points that set them apart from the competition were: being the market leader in product analytics, owning many proprietary technology and models as well as offering a one-stop-shop for corporations. Although in fact they weren't as popular as the companies examined previously, like Spotify or Coinbase, within their sector and business they were the market leaders; Amplitude at the time was the leading product analytics firm in the industry and thus had its specific sector focus and client segment. It wasn't one general analytics tools provider just like many others but, on the contrary, it was the market leader. Moreover, they had secured in different financing series the support of VCs like Sequoia Capital and thus enjoyed a high attention from investors, attracted by the notable financiers of the company. Those are the reasons why it was possible for Amplitude to bypass an intensive, time consuming and costly Roadshow.

Warby Parker: one of the probably least known firms between the ones undergoing a Direct Listing. Since their founding in 2010 their business consists of producing high-quality glasses, lenses, eye exams and vision tests. Today it's a fast-growing business in the United States with a multi-channel access to clients. Unlike the other examples seen before, they lack a unique and singular mission and business proposition, namely one that couldn't be found elsewhere. There are in fact plenty of eye companies that are active in the same sector and carry out comparable activities. One probable key trait that could serve as differentiating element from the competition is their constant innovation and attention to technological aspects, from the materials adopted to the design. However, besides lacking moderately this first element of the three analyzed, they had a good client base and presence across the country. They counted 145 stores and slightly more than 2 million active consumers[51]. Moreover, Warby Parker was not an international firm at the time of the public offering as it was physically present only in the US and in Canada; they of course covered other markets through online orders but did not have any physical store. Even if their market was not huge, they had a very positive brand awareness and recognition, coupled with a strong customer loyalty. The data from Google trends shows in fact how the word "Warby Parker" had been of strong interest over the time from the start of 2019 to the end of 2021; the level of interest had maintained itself always above the mark of 50, just like the first graph seen for Spotify. Concerning the VCs being invested in the firm, no particularly notable names stand out.

As seen from the analysis of these six companies, that have been selected as a proxy for all the ones that went through a Direct Listing process, they all enjoyed

[51] SEC S-1 Form Warby Parker August 2021

high notoriety and popularity, at least within their respective industries, at the time of going public. The factors analyzed that have contributed to this status are many and range from having a unique business as well as a large user basis and geographical diffusion up to a high brand awareness and strong VC backing. The result is that all of them were very well-know. Some, like Roblox and Coinbase, had more prominent and singular features that would surely draw more attention and make almost nonexistent the need to spread their story and investment case among investors, as everyone in the space had come in contact with them. They had in fact developed businesses that were completely different from everything else available on the market. Many others didn't have this one-of-a-kind investment story but at the same time had a combination of elements that, united, made up the perfect case to opt for a Direct Listing, with regards to the theme of this paragraph. These are a strong brand, with a high awareness and recognition over time, a large client base not only in numerical terms but also from a geographical standpoint, as well as other advantages like backing from prestigious VCs that surely had helped them to come under the spotlight. Considering all these points together, gathered from the practical experience of those who went through a Direct Listing, it can be concluded that this new way of going public is suitable only for those companies being well known and enjoying high visibility. This can be measured for example through the help of the factors mentioned in the entire paragraph. What stands out from the analysis is that, giving up on the undoubtedly significant benefits of an intensive Roadshow and Investor Education process, set up with the aid of the advisors, is not meant for everyone thinking to get listed. Not having enough interest and liquidity on the first trading days because of a lack of attention from investors, can in fact result in costly damages, especially with regards to the reputation of the firm. Accordingly, before deciding to avoid this intensive investor focused phase and substitute it with a single Investors Day, held online, multiple factors should be thoroughly analyzed to determine if the company can afford it. Direct Listings, under this respective, and not meant for those needing to make themselves known and attract investors. The main takeaway from the practical evidence is in fact that companies not enjoying a solid reputation, having a strong affirmed brand and offering their services to a large and diversified client base should not bypass the important Investor Education typical of IPOs, as it would bring many benefits to them. Only companies with situations similar to the ones presented can recognize how the IPO procedure wouldn't bring them any added value, with reference to this topic, as they are already popular and attractive for investors; for them a Direct Listing would be a viable option.

2.5 Pricing methodology

History of secondary transactions

This paragraph will be focused on the analysis of the pricing methodology of the two different ways of bringing a company public. On the one side, with IPOs, the price is determined through the bookbuilding activity and the establishment of a price range, according to the quantities of shares and the prices that the respective institutional investors would be willing to pay. On the other hand, with Direct Listings, the price discovery happens in a more natural way on the first trading day, with the opening price being chosen as the spontaneous meeting point between demand and supply. Having already explained the technical mechanisms of these two pricing methodologies in chapter one, here the focus will be on the aspects and elements a company opting for this innovative method should have.

The first point that will be addressed, in relation to the pricing activity, is represented by the history of secondary transactions that every company possesses. They are in fact meaningful in determining the reference price for the live auction and thus play a role in the pricing of a Direct Listing. Theory largely states that from the reference price a good estimate of the opening price of the auction can be derived; here the goal is to analyze the difference between the two prices, understand from that the importance placed by the process on past secondary transactions and thus the ideal features that an eligible candidate should have in relation to this topic, as it has been done in the rest of the dissertation. Not all companies have in fact a very complete and accurate record of past private transactions, with some not having it at all; the question is then if only those who have it could decide to opt for a Direct Listing.

On a general level, activity on secondary markets is deemed to be positive for a variety of reasons. Developing a well-structured, transparent and efficient marketplace for trading of private companies' shares should be a goal of every corporation. It provides in fact enhanced liquidity, increased visibility as well as perception of quality of business and brand with customers, suppliers and employees[52]. Other interesting advantages include the following: an improved use of equity compensation, as it's a way to offer employees a way to cash out on their share remuneration, without having to wait for a distant IPO. The opportunity to improve the cap table and board operations, as unhappy and short-term shareholders can be effectively replaced by longer-term and more committed

[52] https://www-cdn.law.stanford.edu/wp-content/uploads/2019/11/milanesi_wp46_.pdf

ones. Moreover, it also serves the purpose of having a fast and reliable valuation and option pricing methodology. In a Direct Listing, where there is no roadshow and bookbuilding activity, the examination of the precedent transactions on secondary markets represents a great way to get a first indicative reference price. Usually, this price will be communicated by the leading financial advisor and the market maker the day before the official listing. Although there is no guarantee that this reference price and the opening one will coincide or even be close, it is a good proxy and indicative measure for the shareholders willing to sell and the investors wanting to purchase the shares. How important is this reference price and accordingly the history of the company's secondary transactions? One way to determine it is by observing the difference between the reference price and the opening one, for the Direct Listings that have happened up to date. If the two are in fact very close on average, then it means that the secondary activity is relatively important; in this scenario it would be advisable for a company pondering over the choice of a Direct Listing to make sure that it has a rich history of buys and sells over secondary markets. If the empirical evidence gathered pointed to the opposite scenario, namely that the reference price doesn't hold particular relevance in the process, then it would mean that Direct Listings good candidates can also not have an active history of secondary transactions behind them. Thus, the following analysis answers to the research question of identifying the key optimal traits to prefer a Direct Listing over a traditional IPO. For every company undergoing a Direct Listing the existing secondary transactions have been analyzed; they are in fact reported on the S-1 Form filed with the SEC just before going public. Usually, they report the private share sales for every precedent year and in some cases also on a quarterly or even monthly basis. Of these secondary activities, the high and low prices have been inserted into the second and third columns of the following table. They refer to the year precedent to the Direct Listing. Then the reference and the opening price have been reported, where the former, as said, is established by the leading financial advisor and the market maker based on the previous secondary trades, and the latter is the one observed on the exchange the first trading day. The last column is probably the most significant as it displays the difference between the opening and the reference price; it is the analysis of this data that conveys us whether a complete and accurate history of secondary transactions is actually a necessary feature to choose a Direct Listing. The opening price is in fact purely determined by market forces and it is the point of contact between demand and supply. The reference one is instead fixed relying exclusively on past secondary transactions. Accordingly, a high average percentage difference among the two would suggest that what happened in secondary markets bears very little relevance for a Direct Listing. This is important to understand which company is better suited to opt for this

innovative way, for what concerns the theme of this paragraph, namely the pricing methodology.

Company	High	Low	Reference P.	Opening P.	Difference
Spotify	132.5	90	132	165.9	25.6%
Slack	23.41	8.37	26	38.5	48.5%
Asana	25	13.04	21	27	28%
Palantir	8.5	4.19	7.25	10	38%
Roblox	/	/	45	64.5	43%
Coinbase	28.83	28.83	250	381	52%
Squarespace	68.42 (limited history)	68.42 (limited history)	50	48	-4%
ZipRecuiter	6.36 (limited history)	6.36 (limited history)	18	20.71	15%
Amplitude	25	20	35	50	43%
Warby Parker	24.53	24.53	40	54.05	35%
Thryv H.	10.17 (limited history)	10.17 (limited history)	12.4	14	12.9%
Watford H.	/	/	25.26	25.26	0%
Average	/	/	/	/	28%

Table 13 Importance of secondary transactions to establish an initial price[53]

[53] SEC S-1 forms for high and low secondary prices, CNBC for reference price, MarketWatch for opening price, personal analysis

Overlooking the differences between the respective companies' high and low secondary prices as well as their different reference and opening prices, whose entity clearly depends on the specifics of each of them, what strikes is the last column, central for the analysis. Across the Direct Listings examined, there happens to be a consistently larger opening price than the reference price; the average difference lies at 28%, which is a significant value. Thus, the main takeaway is that the history of previous secondary transactions concerning the company's shares, in the end doesn't cover much importance in establishing the final opening price. In fact, unlike what the literature states, the difference among the two values is simply too big to justify that a firm, in order to be eligible for a Direct Listing, needs to have a complete and accurate history of secondary transactions. Possessing one can for sure give a hint about the area where it is likely that the auction will price the shares, even though practical evidence shows that this hint is pretty vague and not much relevant. Accordingly, eligible companies must not necessarily have behind them much activity in secondary markets; it is for sure recommended to have one also for many other reasons, as previously stated, but it's not a condition to choose this process. For instance Squarespace, Ziprecruiter and Thryv Holdings had very limited secondary trades before getting listed and this hasn't represented an obstacle. Watford Holdings instead didn't even have a secondary trading activity. As a final remark to this topic, it can be affirmed that both kinds of companies, those whose shares have been frequently traded on private markets and those who don't have an established record of transactions, are equally eligible for a Direct Listing.

First day trading volatility

Although the share price volatility has already been analyzed in depth over a previous paragraph, choosing as time interval the year following the Direct Listing or a smaller one for the latest listings, here it will be discussed with regards to the pricing methodology. Before in fact, the share price volatility has been examined over a longer time horizon and its value was thus meant to be broadly correlated with the choice of a Direct Listing; the chosen risk measures, namely standard deviation and beta, have been compared with the ones of both indices (S&P 500 and IPO Renaissance Index) and other comparable IPOs that happened over the same time. Accordingly, an average standard deviation value of the Direct Listings higher than the one of the comparable IPOs would have implied a higher process-related risk. In this section only the first day trading volatility will

be taken into account; it is in fact directly connected and expression of the live auction that takes place. Many companies, besides aiming at a long-term low average volatility for its shareholders, want to also make sure that, by choosing this process, they don't incur in excessive risk over the first day. As seen before, a Direct Listing implies a long-term volatility perfectly in line with the one of IPOs happening over the same timeframe and involving firms with similar businesses and profiles. So, one might conclude that there is no major risk involved by choosing this alternative way; however, to really reach this conclusion, also the very short-term timeframe needs to be observed. A different pricing method might cause a high first day volatility which can represent a deterrent factor for many companies who want to absolutely avoid such a dynamic. This is the reason why the share price volatility will be covered again here, this time with reference only to the first day of trading.

To understand the risk entailed by the first day auction three different prices will be taken into consideration for all the Direct Listings up to date. These are the stock's closing, high and low price. The distance between the extreme intraday values divided by the closing price, expressed in percentage terms, will convey a sense of how much volatility is present. After this additional risk measure will be calculated, the picture will be significantly more complete and clear concerning how risky Direct Listings really are, on both the short and long term.

Company	**Closing**	**High**	**Low**	**(High-Low)/Closing**
Spotify	149.01	165.9	148.26	11.8%
Watford	27	27.4	25.26	7.9%
Slack	38.62	42	38.25	9.7%
Asana	28.8	29.96	26.75	11.1%
Palantir	9.5	11.42	9.11	24.3%
Thryv H.	11	14	10.6	30.7%
Roblox	69.5	74.83	60.5	20.6%
Coinbase	328.28	429.54	310	36.4%
Squarespace	43.65	50.02	42.82	16.5%

Ziprecruiter	21.1	21.69	19.32	11.2%
Amplitude	54.8	54.9	50	8.9%
Warby Parker	54.49	54.74	52.96	3.3%
Average	**/**	**/**	**/**	**16%**

Table 14 First day trading volatility[54]

The results highlight a modest intraday volatility, calculated on the first trading day of the stocks. It doesn't appear to be significant but at the same time not even overlookable. However, looking at this data, it can be concluded that the pricing methodology doesn't certainly entail an excessive or considerable amount of risk on the very short term.

Shareholders base composition and implications

After having examined an important part of the Direct Listing process, namely the history of precedent transactions on secondary markets, which is generally utilized to arrive to a reference price, now the attention will be turned to other features of this pricing methodology, totally different from the one adopted in traditional IPOs. In particular, the implications of this live auction, where market demand and supply spontaneously meet, on the shareholder base composition will be taken into account; does Direct Listing's pricing methodology, given its evident democratization of the process, really entail a larger retail investors presence than IPOs? Are there particular implications on the shares holding time horizon and accordingly on the volatility and risk for the company? Is it worth for the firm losing the opportunity of having a saying in the choice of the shareholders, like it would normally happen during the bookbuilding activity of traditional IPOs? These are only some of the questions that will be addressed in the following section, always keeping at the center of the focus the research goal of trying to frame the best features for a company to prefer this emerging listing process. The shareholders base is in fact for a company of extreme significance as shareholders are in the end the owners of the corporation and it's highly important to align their interests and ensure their long-term support.

[54] Yahoo Finance, personal analysis

While in a traditional IPO the focus and efforts regarding the share allocation process go around the institutional clients selected by the advising banks, one of the main pillars and objectives of Direct Listings is to assign equal importance to both institutional and retail investors. The process is in fact designed in a totally different manner; there is no thorough roadshow or bookbuilding activity where only certain investors are addressed and reserved the opportunity to purchase shares from the underwriting banks. The choice to focus on institutionals has been traditionally defended with the argument that it is only them who can guarantee stability and a long-term vision, which will result in being helpful for the company's plans and business activities; however, it has been often noted in these cases how the newly acquired shares have been "flipped" on the very first trading days, with the complicity of a systematic underpricing and a consequent high price appreciation. So, the argument of pursuing the company's interests by allocating shares exclusively to institutionals doesn't seem to particularly hold. The objective here is to determine whether the Direct Listing process, given its intrinsic unique characteristics, entails a higher retail investors presence than average. Or, looking at the issue the other way around, a lower institutional one. Institutionals can have different legal forms and investment strategies but they all have in common the characteristic of being intermediaries, which means managing other people's money. Over the last years, the institutional investors' presence has been pretty high looking at the listed companies' shareholders base composition. However, it hasn't been always like this; it's in fact especially from the 80's that institutional investors have increased exponentially their assets under management and presence. Until the 70's they were still rather small and held less than 20% of the total US outstanding stocks[55]. This strong and fast affirmation has been due on the one side to the rapid growth of financial markets and on the other one to the fact that households increasingly bought shares not directly but through asset managers. A useful report from the OECD, the organization for economic cooperation and development, sheds light upon this matter. This entity was founded in 1961 and at the moment counts 38 member states, among the most developed countries on earth; goals of the organization are for instance stimulating trade and progress, coordinating international and domestic policies and seeking answers to common economical questions[56]. The mentioned report dates back to the end of 2017 and provides an overview of the shareholders composition across different geographical areas of the world.

[55] file:///C:/Users/hp/Downloads/Fichtner_Handboook_Financialization-Rise_of%20Institutional_Investors.pdf
[56] https://en.wikipedia.org/wiki/OECD

	Private corporations	Public sector	Strategic individuals	Institutional investors	Other free-float
United States	2%	3%	4%	72%	19%
Advanced Asia	17%	23%	7%	23%	30%
Europe	13%	9%	8%	38%	32%
China	11%	38%	13%	9%	28%
Emerging Asia excl. China	34%	19%	10%	16%	21%
Other Advanced	7%	4%	4%	39%	47%
Latin America	34%	7%	17%	20%	21%
Other Emerging	15%	28%	6%	20%	31%
Global average	**11%**	**14%**	**7%**	**41%**	**27%**

Figure 15 Ownership breakdown per geographical area[57]

As it can be seen, in the United States, which is where the Direct Listings phenomenon is taking place and is gradually making its way into more and more corporations, the institutional ownership percentage is very high. It has in fact a considerable value not only in absolute terms, 72%, but also relatively to the other geographical areas that have been included. No other part of the world has such a high value, for what concerns the amount of shares owned by institutionals. The data refers to the entire market capitalization so that it is actually to be intended as the ownership percentage of the total market; however, it can be reasonably approximated at every firm's level, if it were to be considered as an average. This value will be compared to the institutional ownership of the companies that went through this innovative listing method. To understand in fact if the process has a concrete impact on the company's shareholders composition, the ownership information for every firm who went public with a Direct Listing will be gathered; then, their institutional ownership percentage will be compared with the 72% value obtained through the OECD analysis. Examined with the opposite perspective, after removing the quotas of all other investors' kinds, the free float of the two will be compared in order to isolate the retail ownership. Starting from a theoretical assumption that the retail presence here should be higher, this empirical method should yield actual results concerning the effects and implications on the shareholders composition. The analysis has been carried out extracting and analyzing data from Bloomberg. For all the companies that have gone public through a Direct Listing the institutional ownership has been taken into consideration; and this not only as of the day of writing but also in two other temporal moments. A few days after the process as well as exactly one year after the Direct Listing, in order to better understand the evolution of this data. The values extracted from Bloomberg in three different times are the following: the institutional ownership percentage, calculated on the total outstanding stocks and not on the free float, and the number of institutions that had purchased the securities. Watford Holdings and Slack have been excluded because for the

[57] https://www.oecd.org/corporate/Owners-of-the-Worlds-Listed-Companies.pdf

former no data was available while the latter has been acquired in the meantime by another company.

Company	Own. % 4/24/22	Number of Institutions	Own. % 1 Y after DL	Number of Institutions	Own. % at DL	Number of Institutions
Spotify	75.06	911	64.68	466	12.72	13
Asana	72.48	492	77	314	14.39	2
Palantir	40.28	1054	36.15	955	15.96	9
Thryv H.	95.22	192	84.46	4	0.34	4
Roblox	93.73	832	92.7	836	15.12	5
Coinbase	62.03	1087	62.1	1123	22.13	11
Squarespace	74.1	112	/	/	58.44	2
Ziprecruiter	80.53	160	/	/	7.27	1
Amplitude	64.94	136	/	/	25.37	3
Warby Parker	100	148	/	/	16.99	7
Average	**75.83**	**512**	**69.51**	**616**	**18.87**	**5.7**

Table 15 Institutional ownership[58]

The analysis conducted highlights surprising results. Starting from the percentage of outstanding shares that institutional investors own today, there is an extreme closeness to the value of 72% displayed by the OECD report which refers to the broad US market. The result is in fact 75%; unlike the theoretical expectations it is an even higher value than the market average. One year after the Direct Listings took place, the ownership percentage assumes the number of 69% while a few days after the listing it is significantly lower lying at 18%. As the company carries out a Direct Listing, the pricing methodology and the shares allocation happens in a way that determines a substantial democratization of the process, with equal weight being assigned to both kinds of investors. Accordingly, it appears likely that institutional either didn’t want or couldn’t manage to purchase some shares.

[58] Bloomberg, personal analysis

Three main reasons can be mentioned as to why the ownership percentage is so low at the start and then grows significantly in about a year time.

1) They didn't want to become investors this early (too risky for different reasons)
2) They couldn't manage to purchase shares right after the listing
3) On average their presence and interest tend to increase as time goes by

There is in fact not anymore a reserved process for them where they receive absolute priority; some might not want to gain an exposure this early with a high part of the float being in the hands of retail investors, as they might fear more volatility and uncertainty. Being also a relatively new process, they might not feel confident with it and prefer waiting some time before opening a position. Others instead might not have managed to buy shares especially if the demand is very high and not too many insiders are willing to sell. Additionally, it is also true that their presence as investors in companies tends to increase as time goes by, so that it is perfectly normal to see their number increase over time. However, it can be reasonably stated that upon listing the value is probably lower than in similar IPOs because of the structure of the process itself; they are not granted a preferential lane with a book to be filled exclusively with their orders. Moving on to the actual value of 75%, this results to be even higher than the market average, as pointed out. Consequently, it shows that on the long run it would be wrong for a Direct Listing candidate to expect a lower than normal institutional presence, because of the characteristics of the process selected. This assumption might hold in the very short-term but no longer; and by short-term we mean a period of less than one year. After only one year in fact the number of institutional has soared from an average of 5 to an average of more than 600, where it remains more or less constant. This means that all the institutional ownership flows into the stock within the first 12 months since listing.

Thus, the data gathered seems to suggest that if at the very start the retail presence appears to be significant and consistent with the intrinsic features of the procedure, then gradually but pretty quickly it gets replaced by institutional investors who end up holding the great majority of the shares, with the exact percentage being perfectly in line with the overall market. A candidate for a Direct Listing doesn't have in this way to expect a higher retail investors presence other than in the immediate timeframe. Similarly, this new way to go public can be seen and it actually is a good way to democratize the system and grant everyone equal access to the shares; however, this shouldn't be considered as the first reason to discard a traditional IPO, as the democratization effect tends to disappear quickly because of normal market dynamics. For potentially very different reasons, both internal and external to the mechanisms of Direct Listings, institutional investors

tend not to be consistently present among the shareholders upon listing but then increase rapidly their ownership share replacing retails. To conclude, a company opting for a Direct Listing doesn't need to have some distinguishing or peculiar expectations in terms of shareholders base, as the end result will be the same of IPOs, with regards to this theme.

Moreover, for a Direct Listing candidate it is not necessary to ponder over the potential implications of a different shareholders composition because, as just demonstrated, from year one onwards there is no difference with traditional IPOs. In particular, there is no need to reflect upon risk implications of a larger retail investors' presence, as it is simply not present. They could have in fact implied for example more share price volatility or a shorter holding horizon. The result found in this paragraph, namely an almost identical shareholders base composition to conventional IPOs, seems to be confirmed and strengthened with the findings of paragraph 2 with respect to the risk topic. In that section it was in fact empirically demonstrated how Direct Listings are not riskier than the average process of going public; the analysis had concerned the standard deviations and the betas of the share prices. This lack of additional risk than traditional IPOs is well connected and supported by the fact that the shareholders composition is very similar. These two findings can in this way be connected and evaluated together.

Unlike the previous element, it is perhaps necessary to reflect upon the absence of having a saying over the shareholders selection process. In an IPO in fact, during the the bookbuilding activity there happens to be the chance to carry out a selection of the future shareholders, meaning those investors that will be allocated some shares in the process. And within this selection the company itself usually has a saying, expressing its thoughts and concerns relatively to the share allocation to some specific investors, who might not be considered ideal by the firm for a variety of reasons. Opting for a live auction pricing methodology there is no way of directing the future shareholders choice, as the orders get executed automatically. So even though after around a year the institutional investors quota gets in line with the number that is to be found in the broad market, as previously demonstrated, there is no real way to conduct an initial selection like it would happen in an IPO. In this way the company might miss the chance to allocate from the very start shares to investors that would have been particularly supportive and helpful during the business plan realization.

This paragraph analyzed the Direct Listing pricing methodology trying to single out related characteristics that a firm opting for this methodology should have. A first element that was examined is the history of secondary transactions as they provide guidance for the opening stock price on the day of listing. Based upon the secondary market activity the reference price is established; although it could bear

little or no relevance at all for the following auction, it is often seen by market participants as an estimation of what the meeting point between supply and demand might yield. Because of this peculiarity of the pricing methodology of Direct Listings, a question to be answered was if an eligible candidate had to have, or was at least recommended to, a complete and thorough history of secondary transactions. Many companies don't have an accurate record of transactions of this kind and some don't have it at all. The empirical way that was adopted to establish this relied on the measured distance between the reference price, determined through secondary market activity, and the initial opening price, calculated through market dynamics. The average distance measured 28% and was calculated based on all the Direct Listings happening up to date. Accordingly, being the difference substantial, it is not necessary for a candidate to possess a complete track record of this kind, as the reference price bears very little relevance in the process. Secondly the volatility concept was deepened again, this time in relation to the very short term. Before, the share price risk had been linked and related to the choice of the overall Direct Listing process; an average volatility higher than comparable IPOs over a span of a year implied that this new way brought along more risk. Now the risk has been connected to the very pricing methodology that was adopted, referring exclusively to the first trading day. The first day volatility was calculated by obtaining the difference between the high and low prices of the session and then dividing the result by the closing value. Combining together the two data found, it is possible to state that a Direct Listing doesn't entail more risk than traditional IPOs, both on a long-term horizon and on a short term timeframe, with reference in this second case to the auction that sets the initial price. The first day price volatility is in fact more connected to the peculiarities of the pricing method itself. Accordingly, it seemed more appropriate to touch upon this topic in this section. The third aspect that was considered relates to the shareholders base composition that this alternative process entails. It was in fact of fundamental importance to understand if it determines a difference in the quotas of retail and institutional investors. Had it entailed a larger retail shareholders presence, this could have had consequences for instance on the risk or holding period of the shares, as well as on other aspects that typically institutional ownership brings about. Had this been the case, not all companies, because of their predisposition and intrinsic characteristics, would have been suitable to opt for a Direct Listing. The analysis was conducted examining the institutional ownership at different dates, namely upon going public, one year later and as of the date of writing; later the numbers retrieved were compared with the presence of this kind of investors to be found in the overall market. The result was that initially it assumed very low values but then after roughly one year it was in line with the overall market, thus suggesting that the Direct Listing process

doesn't cause a higher retail investors' presence, if not in the extremely short term. Thus, there are no implications on the eligible candidates' characteristics, as there are no differences with normal IPOs, with regards to this matter. If on the one side no difference in terms of shareholders base composition is to be expected, on the other one the firm loses some ability to express its preferences over the institutional investors that in a conventional IPO setting would be allocated the shares. This in some cases might represent an element to pay attention to, especially in those circumstances where the company is very selective and only some specific long-term investors are preferred.

CH.3 Profile and traits of a Direct Listing optimal candidate

3.1 Conclusions: most appropriate companies for a Direct Listing

After having examined in depth the differences between Direct Listings and IPOs, here they will be summed up presenting the findings of the research, namely the features and characteristics that an ideal Direct Listing candidate should have. In fact, this alternative procedure to bring a company public is not meant for every firm pondering over the choice to get access to public capital markets; as thoroughly seen, it brings along several advantages as well as cons that need to be carefully addressed and evaluated. There are some specific prerequisites that need to be fulfilled in order to be eligible for it. Although it is still a relatively new procedure, having made its debut in 2018, the fact that 12 companies have carried it out in the US and only 1 in Europe signals that, besides needing time and adoptions to affirm itself, there are also some aspects that make it appealing only for some kinds of firms. The goal of the research has been from the very start trying to find the suitable profile for which it would make sense to prefer this route over a traditional IPO; in this section it will be presented in detail, recapping the main elements that have been scrutinized. As follows, a summary table is displayed.

Direct Listing Optimal Candidate Characteristics	
Topic	**Company's traits, features, and goals**
• Costs of the Process	• Firms aiming at halving direct bank expenses and avoiding the damaging underpricing phenomenon are suitable candidates.
• Share Price Returns	• Although Direct Listings have underperformed the S&P 500, they registered the same performance of the latest IPOs, represented by the IPO Renaissance Index. Thus, no particular company's goal or requirement concerning returns has

	to be present. No difference is to be expected with IPOs with regards to this theme.
• Long-Term Risk and Volatility	• No particular risk propension/aversion needs to be present, as Direct Listings possess the same risk of comparable IPOs that took place over the same period.
• Balance Sheet Cash Position and Financing Rounds	• Being a secondary offer, only companies who performed recently a large last financing round and have consistent cash reserves are suitable. With their cash holdings they need in fact to be able to cover operating expenses for a good time.
• Brand Awareness, Diffusion, Popularity and Investors' Interest	• Lacking a well-structured investor education process, Direct Listings are not suitable for firms who don't enjoy a high brand awareness, popularity, widespread presence and sustained interest from investors.
• Venture Capital Backing	• Firms with a high VC backing, as supported by the practical evidence, are incentivized, and have a stronger case to prefer a Direct Listing. A positive correlation is present between Direct Listings and VC support, more than with IPOs.
• History of secondary Transactions	• Although in Direct Listings the history of secondary transactions is used to determine the reference price, it is not a prerequisite to have a complete and accurate secondary market. It is only recommendable.

• First Day Volatility	• A moderate intraday volatility is present and a Direct Listing candidate should be prepared for it.
• Shareholder Base Composition	• Initially, the institutional ownership is very low but then tends to increase rapidly, reaching within the first year the US market average. Although the evident democratization of the process, a Direct Listing candidate doesn't have to expect a higher retail presence than normal.
• Institutional Investors' choice	• Unlike an IPO, where during the Bookbuilding process the company can have a saying over the choice of the selected investors, here candidates have to be prepared to give up on this.

Table 16 Direct Listing optimal candidate characteristics

Starting from the first element that was addressed, namely costs, here the result is quite straightforward and of easy interpretation. Initially, only direct costs were examined. The main difference between an IPO and a Direct Listing under this respect, is that the latter, being only a secondary offering, doesn't entail any underwriting activity. In fact, the investment banks' role shifted from an underwriting and advisory one to a purely advisory function. For what concerns the other expenses, like for example legal, printing and registration costs, they have been assumed to stay the same, as the two processes have similar requirements of this kind. It was empirically shown that the mentioned shift determines a reduction of almost 50% of the fees that are paid to banks. The analysis was conducted with the help of a PWC IPO report, presenting all the traditional IPO costs in detail, and the examination of three very large Direct Listing companies' SEC filings. The first source allowed to gain an understanding of the entity of the underwriting fees which, for offering sizes greater than 1 billion, have an average value of 61.4 million. The latter, namely the analysis of Spotify, Roblox and Slack SEC filings, enabled to derive the advisory fees that have been paid by them within their Direct Listing processes; the result obtained was, as an average, 42% lower than the underwriting cost for traditional IPOs. These three companies were selected as a proxy for all the other Direct Listings,

being very large and transparent in the disclosures they made. The conclusion is that bank fees happen to be 42% lower in Direct Listings, being only advisory costs without any underwriting involvement. Moreover, also indirect costs were taken into consideration. In fact, IPOs have historically entailed a consistent underpricing phenomenon. This translates into money that has been left on the table by the firms going public and pocketed by the institutional investors who initially bought the shares. Accordingly, these indirect expenses need to be considered as an additional IPO cost, which contributes to making the case for Direct Listings even more compelling regarding this topic.

The result concerning the costs' analysis is clear: not only those firms aiming at minimizing direct process related expenses but also those wanting to avoid the damaging and widespread underpricing phenomenon should opt for this alternative method. On the one side in fact it allows to reduce in almost half the direct bank expenses while on the other one it also enables the selling parties to pocket the entire amount without significant first day price appreciations, typical of more than few IPOs. Consequently, there is not only a strong convenience for what concerns direct expenses before going public but also for indirect costs embedded in the process itself.

Share price returns and volatility are the second elements that have been analyzed, as they bear great importance for a company and its shareholders. Starting with the former, the Direct Listings' performance has been considered first in absolute terms and then through the comparison with two benchmarks; the S&P 500, as a proxy for the overall American economy, and the IPO Renaissance index, including all the latest IPOs at its quarter rebalances. It's important to notice that the absolute performance is not very indicative for a company pondering over which process to adopt to go public; the absolute returns of the single Direct Listings might in fact be connected to firm specific reasons as well as be influenced by the macroeconomic environment and large-scale events. Instead, comparing them to these two benchmarks allows to understand whether they entail better or worse performance on average, and accordingly the characteristics that suitable candidates should have with respect to this theme. The relative analysis has displayed underperformance with respect to the S&P 500 and same returns with the IPO Renaissance index. In the first case, 6 out of 10 firms who carried out a Direct Listing registered a worse performance than the popular American index, obviously calculated over the same spans of time; the median value of over/under performance lies at around -10%. In the second case, the performance was approximately equal to the one of the second index selected, which dynamically includes the latest IPOs; here, 5 Direct Listings overperformed the index and 5 did worse, with the median lying this time slightly in positive

territory. The risk analysis was again conducted with the same methodology as for the returns; first on an absolute and then on a relative level. As share price volatility measures two indicators were chosen; the standard deviation, calculated on daily returns over a period of one year after going public, and the beta. On an absolute floor, the Direct Listings that have happened up to date appear pretty risky, with an average standard deviation of 4.1% and a beta of 1.3. However, the picture changes if a comparison is built with similar IPOs. 20 IPOs of tech companies deemed comparable with respect to their business, the sector they operate, their life cycle and growth perspectives were examined. The number 20 was chosen as it seemed to be sufficiently large to get to a reasonable average value. So, each one of these companies can be considered a comparable of one firm that conducted a Direct Listing. The result is that they, on average, display very similar risk measures as the Direct Listings. A standard deviation of daily returns equal to 3.9% was found, thus being very close to the previous value.

For what concerns share price returns the conclusion is that a company opting for this alternative procedure doesn't have to expect a particularly brilliant performance because, as seen, Direct Listings underperformed the S&P 500 over comparable spans of time. However, they registered a very similar performance with the latest IPOs: this data is the most significant one for the purpose of the research. In fact, it highlights how a firm who is pondering on whether to carry out a Direct Listing or an IPO could reasonably expect the same performance in both cases. Thus, no particular goal, objective or requirement in terms of financial returns needs to be present in order to make a company choose this alternative way. Regarding risks, a similar conclusion applies. Although in fact Direct Listings appear to be pretty risky, they don't display higher volatility measures than IPOs that involved comparable companies and took place over the same period. Thus, a Direct Listing candidate doesn't have to possess a higher risk tolerance nor the shareholders have to expect a higher share price volatility than the situation where they had chosen to carry out a traditional IPO.

The fact that Direct Listings are only secondary offerings puts under the spotlight the dilution topic, that has been faced under two perspectives: the shareholders' and the company's one. The focus is on the latter, as it appears clear that for the shareholders it is advantageous not to see their ownership quota and various rights decrease. For the firm, no new shares being issued translates into no new capital flowing in. Accordingly, it doesn't appear suitable for everyone; especially those who are in particular need of new funds to finance business operations. To determine the ideal features of a suitable candidate, different aspects were taken into consideration and examined for the Direct Listings that have already taken place. They are in the order the time between the last financing round and the

Direct Listing, the amount of money raised on this last occasion as a private company, the cash on hand and the time their cash reserves would have been sufficient to cover normal operating expenses; these are all useful indicators that can convey a sense of whether these firms didn't really need to issue new shares and further dilute existing shareholders.

The results found are very clear: all companies had carried out a last financing round in close proximity to the moment of going public. The median value lies at 3 months before the listing date, with only 2 companies choosing to carry it out as a post Direct Listing round, thus right after the process. This perfectly explains how they felt the need to compensate with a last sizable round for the fact that, unlike IPOs, no new capital would have been obtained. Also the evidence gathered pointed to significant amounts being raised, as for many firms this last financing round size was similar to their last year's revenues. Moreover, surely with the contribution of this close round, at the moment of going public they all had notable cash reserves; they would have been in fact sufficient to cover normal operating expenses (SG&A and R&D) for a long time on average. There are 6 cases of Direct Listings where the firms involved would have been able to sustain operating expenses for a period close or even greater than 1 year. As a conclusion, an eligible candidate needs to have similar features to the ones just mentioned. Companies who haven't carried out a last consistent round right before the moment of going public or who have low cash reserves, don't look like ideal candidates for a Direct Listing in relation to this topic.

As a follow-up to the dilution theme, this aspect of Direct Listings is particularly advantageous especially for a certain category of investors who have supported the firm since the early stages: Venture Capital firms. They have in fact suffered multiple dilution events, as different financing rounds took place over time, so that an additional shares issue would be very damaging for them. Moreover, they are also set to benefit from the absence of lock-up agreements as they have usually been invested for many years and a quick exit would enhance returns and free their capital. In the wake of these considerations and the research question, it appears likely that a firm backed by many prominent VCs is more incentivized to opt for a Direct Listing, as there are several very positive elements for this specific investors class. Examining the percentages, from 2018 onwards, of both Direct Listings and IPOs who have been backed by large VCs, there is a moderate difference; 83% of the Direct Listings against 63% of IPOs. These results have been derived with a weighted average that keeps count of how many processes have happened every year, as to assign more importance to the period where most activity was concentrated. This concrete data confirms the hypothesis that had been made on a theorical standpoint, namely that a larger VC presence can

influence and contribute to the choice of which process to adopt to go public. As a conclusion, it can be stated that the presence of VCs represents an additional factor that composes the perfect Direct Listing profile.

The next topic that was addressed is the Investor Education process, which in an IPO assumes the characteristics of a thorough Roadshow where, over the span of a couple of weeks, the company's management and the assisting banks meet interested buyers. On the contrary, in a Direct Listing it's reduced to a single investor's day that takes place online and is open for both retail and institutional investors alike. Accordingly, the firm doesn't have the same resources and opportunities to showcase its story and future plans, like it would happen in a traditional IPO: not only it's in fact much more time constrained but also, taking place virtually, there is no way to organize one-on-one meetings with the interested parties. As a consequence, this process specific peculiarity doesn't appear to suit all kinds of companies, especially those that need to attract investors and convey their own story and future goals. The question was in this way if those firms who performed a Direct Listing had already such a high brand awareness, popularity and investors' interest that no intensive Roadshow and investor education process was necessary. The methodology followed an analysis of four factors for six Direct Listings that have happened; these firms, like Roblox, Coinbase, Amplitude and Warby Parker, were selected as to include different sectors and business models as well as different degrees of notoriety. These elements are: unique business proposition and mission, user adoption and diffusion, brand awareness and VC backing. The combination of them can really convey an idea of whether it was necessary for the company to carry out an intensive roadshow, in order to reach more investors and spread its story and unique features.

The analysis has yielded as result that all the examined cases, with slight differences among each other, were firms with significant levels of popularity and brand awareness, also thanks to their specific business models and geographical presence. Accordingly, here the takeaway is that only this type of candidates, who don't need to make themselves known and win new investors' support, can successfully perform a Direct Listing. An intensive, time consuming and costly roadshow wouldn't bring any significant value added, as everyone in the space is already aware of them and their activity. Thus, it makes perfectly sense for them to prefer a single investors day where only their upcoming listing and key sales talking points are revamped. On the contrary, those firms needing to spread their story and who are not very known among investors, should go for a normal IPO where the investor education phase could prove to be very useful for them.

The last part of the dissertation faced the pricing methodology which differs significantly from the one utilized in IPOs. It is characterized by a live auction where demand and supply spontaneously meet. Before the auction starts, a reference price is identified by jointly the market maker and the leading financial advisor; it is based on the history of past secondary transactions. However, not every company owns a detailed record of secondary market buys and sells, with some who don't own it at all. The first question was thus if, in order to participate in this process, a thorough history of this kind was necessary. To answer this question, the analysis examined empirically the distance between the reference price and the auction opening price for every Direct Listing that has occurred. The average value lies at 28% signaling how having an accurate history of secondary transactions is not a mandatory feature to choose a Direct Listing. In fact, companies like SquareSpace and ZipRecruiter had a very limited one while Watford Holdings didn't even have one. The next topic about the pricing methodology that was observed is the intraday volatility on the day of listing. The long-term share price volatility had already been considered and it assumed no greater values than the one of comparable IPOs. However, for completeness reasons, also this kind of short-term risk has to be examined; it is in fact more connected to the peculiarities of the way the securities are priced rather than on a more general level to the choice of the process itself. The first day volatility turns out to be 16%, which is not an overlookable value. Even though there are no excessive numbers, a Direct Listing candidate needs to be aware and prepared that on average this kind of first day risk, tied to the way the process is structured, has been sustained. The last paragraph about the pricing methodology touched upon the shareholders base composition. It was in fact necessary to evaluate whether someone who is opting for a Direct Listing should expect a higher retail investors presence, because of the intrinsic characteristics of this way of going public. If this method, given its evident democratization goal, were to imply a lower institutional share ownership, this could have serious implications on the share risk and holding period, just to mention a couple of them. However, the empirical analysis realized through Bloomberg data and an OECD report shows differently. After only one year from the Direct Listing date, on average, the institutional ownership is perfectly in line with the US wide value. As of the day of writing it is even larger. Thus, a company discarding an IPO doesn't have to give up on institutional ownership or be ready to have a higher retail presence than normal. Instead what it needs to renounce upon, is the opportunity to have a saying over the selected institutional investors, like it would normally happen during the bookbuilding activity of an IPO.

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Department of Business and Management

MSc in Corporate Finance

Course of M&A and Investment Banking

IPOs and Direct Listings: ideal characteristics to opt for the second method

(Summary)

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Academic Year 2021/2022

Summary

The term “Direct Listing” has appeared for the first time in 2018 and has been hailed from the start with contrasting opinions and thoughts, given its strong differences with traditional Investment-Bank led IPO processes. The credit goes to the Swedish company Spotify who in this very year decided to change and rewrite the rules to get listed that had been present until that moment. In fact, after careful consideration of its peculiarities, needs and future objectives, it opted for a more agile and less centralized method to access public capital markets. This decision reflected to some extent the disappointment and delusion that had been going on for some time in the industry; this was due to intrinsic IPO features that seemed somewhat opaque and, according to many, ended up damaging the companies and their shareholders. Among others, often, the share allocation and share pricing methodology were criticized, as they looked to clearly favor some participants over others. The banks leading the process have traditionally had total discretion with regards to who to allocate the shares to and many were openly accused of deliberately pricing the securities at a lower price, only to cause a first day appreciation and ensure gains for their clients. Thus, a potential conflict of interest was present, with these financial institutions working at the same time in the interest of their often historical clients and the company going public, also their client on this occasion. Moreover, because of company specific elements and future plans, several IPO features didn’t seem anymore useful or productive. In broad capital markets as well, there were some early signs of a possible shift happening soon; for instance, the listing was starting to take place at an always later stage in the lifecycle, the portion of the company being sold was constantly getting smaller and some other opportunities like SPACs were emerging. The combination of these factors and the turbulent environment prompted a change with Spotify being the first firm worldwide to embrace it and put it into practice in April 2018. Since then 13 Direct Listings have happened up to date, with 8 settling on the New York Stock Exchange and 4 on the Nasdaq. Only one recently chose to get listed on the London Stock Exchange.

The goal of the work is not to highlight and point out from an abstract and theorical standpoint which of the two processes seems more advantageous for a company who wants to go public. Rather, since Direct Listings are not meant for everyone, it is to identify the ideal profile that a firm wanting to go public should have in order to be suitable for this alternative route. Accordingly, through the analysis of Direct Listings’ empirical evidence, this set of optimal features will be derived.

In the first part of the research the main differences between Direct Listings and IPOs are explained, remaining in this phase prevalently on a theorical floor. Both the investors' and banks' perspectives are assumed, highlighting their respective positions towards this new phenomenon. Lastly, Direct Listings are framed within a set of trends that are taking place in the financial sector on a global scale, showing connections and similarities with them, as well as providing evidence of how they should be considered as only a part of a much bigger change happening at a broader level since some years.

Unlike IPOs where new shares are issued resulting often in a mixture of primary and secondary offer, here no new capital is obtained by the company. This is a meaningful element of distinction that has also consequent effects on other areas. Direct Listings have in fact been conceived as a fast and direct way for insiders to sell and cash out their positions, not as a route for a firm to get new funding to finance growth and business operations. Since there is no issuance of new capital, there is also no dilution which results to be particularly beneficial especially for those investors who bought their shares much time before and went through numerous financing rounds; they are in this way able to perfectly retain their quotas and accordingly their voting rights for example. Moreover, this innovative process is characterized by the absence of lock-up agreements which in IPOs can normally last between 6 and 12 months; for an early VC this feature can really mean higher returns and investment multiples.

The second part of the distinctive and contrasting aspects concerns the role of Investment Banks, the Investor Education and the pricing methodology adopted to assign a value to the securities. Traditional IPOs rely heavily on the presence of banks who, usually in a syndicate as to reduce risk, act as underwriters; namely, they buy the securities and resell them to their clients. This activity can either be under the form of a firm commitment or a best effort. In Direct Listings, since it is only a secondary offering, the banks' role has shifted from an underwriting and advisory one to exclusively include the second. Their leverage and overall relevance has thus significantly decreased. However, they are still extremely important and provide great value in helping the clients over many points, from marketing to legal tasks just to mention a couple. The thorough Roadshow and Bookbuilding activity that characterizes IPOs has instead been replaced by a single Investor Day to be held online; also here banks have a much smaller role. It's important to notice that if before only institutional investors were addressed, now also retails are placed at the same level; an evident democratization and decentralization has occurred. One last point of distinction is embedded in the way securities are priced. Bookbuilding has been substituted by a live auction where demand and supply spontaneously meet; it is meant as a more natural and wider

price discovery, determined by market forces rather than an initial price estimate based on a few interested buyers. The following table sums up the main points that have been just mentioned.

	Direct Listing	**IPO**
Offering	Secondary	Primary but can have a secondary part
Lock-up Period	Absent	6-12 months
Investor Education	Investor Day	Intensive Roadshow
Price Discovery	Live Auction	Bookbuilding
Share allocation	Retail and Institutional	Institutional only
Investment Banks Role	Advisors	Advisors and Underwriters

Table 17 Differentiating elements between IPOs and Direct Listings

On the one side investors have hailed this alternative route as an evident democratization of the process, with some traditionally negative IPO elements being corrected or eliminated. From the absence of dilution and lock-up agreements up to retail investors involvement, these are only some positive developments that have been experienced by shareholders and external investors alike. Banks instead, recognized their reduced importance throughout the process, rather than considering it as a lost source of revenue, are positioning themselves to exploit this new business opportunity. They can either serve as advisors or as leading advisors, where the latter entails a bigger participation and joint work with the market maker. Until now the banks' involvement has resembled a monopoly with Morgan Stanley and Goldman Sachs taking part in more than 60% of the Direct Listings that have occurred; the former in particular served as leading advisor in 7 of them.

Banks, as seen, are positioning themselves to profit from this rising trend as they have perfectly understood how deeply it is connected to global phenomena that are shaping the financial sector. Direct Listings are in fact intertwined and expression of radical changes taking place worldwide in the last years; accordingly, they need to be contextualized keeping trace of the bigger picture. They were born in 2018 in the wake of the always growing disintermediation of financial transactions, democratization of finance as well as the disruptive Decentralized Finance (DeFi) and blockchain technology with whom they share many values and founding principles. Starting from the former, this is a trend happening since more than a decade which sees a constant reduction in the number

of middlemen and intermediaries in all financial transactions; Direct Listings, reducing drastically the importance of Investment Banks, pursue in the end the same objective of achieving a more direct and straightforward access to capital markets. Moreover, they significantly democratize the process enabling everyone to take part. The democratization of finance, namely the larger participation of retail investors to a growing set of activities they have traditionally been excluded from, has accelerated particularly since the outbreak of Covid-19. Platforms like Reddit or Robinhood are expression of this trend, as they have hit the headlines for their goals and strong community backings, which have transformed them into real mass phenomena. The third trend Direct Listings are connected to is Decentralized Finance. Although DeFi is based on the blockchain, while a Direct Listing has nothing to do with it, it can be deemed as something that influenced and accelerated this move from a traditional IPO model. It makes us also reflect on whether the Direct Listing process could only be a first step towards this peer-to-peer network with whom it shares many values like the dwindling (or absent in case of the blockchain) importance of a central and established node like a bank as well as equality among all market participants, greater speed, lower transaction costs and the willingness of more transparency. This potential comparison doesn't seem too far-fetched also keeping in mind the recent issuance of a digital bond on the blockchain by the European Investment Bank.

The second part of the reasearch is instead oriented at finding out the ideal profile that a company opting for a Direct Listing should have. Different topics are analyzed in depth, based upon the empirical evidence of the Direct Listings that have already happened. Relying on the data gathered and the consequent observations, the optimal profile is presented. For each of these areas, a relative analysis is also produced; a comparison is in fact established with IPOs in order to derive differences and similiarities, thus digging deeper into the respective mechanisms and have more accuracy when deriving the suitable characteristics that a candidate should possess. These are the topics considered:

1) Direct and indirect costs
2) Share price performance and volatility
3) Dilution
4) Venture Capital backing
5) Investor education activity
6) Pricing methodology

Direct and indirect costs

IPO expenses can normally be divided into pre and post IPO costs. The latter are highly variable and could potentially not be present at all, as not every company has to go through restructuring/additional activities after the process. Thus, the

comparison has been produced acting only on the pre IPO costs which can be additionally divided into direct and indirect ones. Starting with the former, what results to be striking is that, between IPOs and Direct Listings, all cost categories tend to be very similar except for one; the underwriting expense that, by the way, is also the highest fee a firm going public has to pay. All other costs like for example marketing, legal and registration ones don't display notable differences, as it could be easily imagined. The underwriting fee instead has transformed itself into a purely advisory one. Building upon the observations of the three large Direct Listings of Roblox, Slack and Spotify as well as a detailed report provided by PWC, a remarkable result was reached: the advisory fee paid in Direct Listings is 42% lower than the corresponding underwriting cost in an IPO. To derive this number, the advisory fees paid by these three firms were compared to the average underwriting fee in large IPOs with an offering size greater than 1 billion.

	Large IPO	**Large Direct Listing**
Accounting	2.4	2.4
Legal	3	3
Printing	0.7	0.7
Other	2.7	2.7
Underwriting/Advisory	61.4	35
Total Avg. Cost	70.3	43.8

Table 18 Total average cost of an IPO and a Direct Listing

Keeping all the other costs constant and assuming a change only in the underwriting fee, the final difference is notable. Not having a syndicate of banks buying and reselling the securities leads to a significant overall cost reduction.

However, this isn't the only saving that comes from choosing a Direct Listing over an IPO. Indirect costs include the widely spread underpricing that comes from applying a lower price, on purpose, to the shares in order to provoke a first day appreciation. While this might be good for the banks' clients who bought the shares, it directly translates into money being lost by the firm. Professor Jay R. Ritter from University of Florida estimates that in 2021 only, on average, a firm going public had to expect to lose, or leave on the table for others to profit, about 70 million while in total the amount gets close to 30 billion, if we consider all the IPOs that happened throughout the year. Direct Listings, although there is no

primary offering so that it's a totally different concept than traditional IPOs, don't see any first day price appreciation given the more natural price discovery.

Thus, it appears evident that a firm wanting to minimize the expenses, both direct and indirect, related to the process of going public should opt for a Direct Listing.

Share price performance and volatility

A question of fundamental importance for each company and its shareholders is whether choosing one method over the other will entail differences in share price returns and risk. The analysis has been conducted by first calculating the Direct Listings' returns on an absolute basis and then comparing them to two benchmarks; namely the S&P 500, as a proxy of the overall economy, and the IPO Renaissance Index, which dynamically includes the latest IPOs. This has been done on intervals of 3 and 6 months as well as 1 year from the listing date, deriving later the over or underperformance relatively to the two indexes. The result is that out of 10 firms, 4 have overperformed the S&P 500 while 6 have had a lower result. The median lies accordingly at -10.8%; had we considered the average it would have been remarkably positive but that's due to the influence of some extremely positive outliers who can distort the picture. For what concerns the IPO Renaissance Index, the takeaway is similar as 5 firms have overperformed it and 5 had worse returns. The median is in this way better than with the S&P 500, as it is 5.5%. The following table sums up the results. It is important to notice that for every company the over or underperformance relative to the indexes was calculated over the same period of time; for instance, for the latest Direct Listings that happened less than 6 months ago, only the 3 months performance figure was available. In this case, the indexes' returns were calculated over the same period of 3 months. Accordingly, the 1Y median value refers only to a few companies who went public as first; only for those the over or underperformance was calculated over the period of 1 year.

Company	3M	6M	1Y	Over/under performance S&P 500 (company perspective)	Over/under performance IPO Renaissance I. (company perspective)
Average	20.8%	36.8%	109%	38.5%	49.4%
Median	7.3%	22.5%	153%	-10.8%	5.5%

Table 19 Returns comparison between Direct Listings, S&P 500 and IPO Renaissance Index (full table in chapter 2)

The risk analysis was based upon two indicators, again first on an absolute level and then through a comparison. They are the standard deviation and the beta. They

were both obtained from the stocks' daily returns over the year following the listing. On an absolute level they appear rather risky with the median of the former assuming the value of 4.1% and the one of the latter 1.37. The S&P 500 and the IPO Renaissance index assume lower values. Then, in order to give more colour to the analysis, also some comparable companies who had done an IPO were considered; 20 firms, carrying out an IPO from 2018 onwards were selected as comparable. They belong to the growth spectrum of the tech sector and are involved in similar businesses and activities. The examination of their standard deviations, based on the daily returns in the year after the listing, yields a very similar result; the average value lies at 3.9%. They display very similar risk.

What appears clear is that Direct Listings don't shine in terms of financial returns, underperforming the S&P 500. This should be kept in high consideration by especially those potential candidates that put great emphasis on financial performance. For what concerns risk instead, a company undergoing a Direct Listing doesn't have to take into account more risk or volatility than it would have with a normal IPO.

Dilution

Another important theme is represented by the lack of dilution that shareholders experience, stemming from the fact that it is only a secondary offering; however, on the company side, this translates into no new capital being obtained to finance growth and business operations. Because of this feature, not all firms look suitable to undergo a Direct Listing, in particular those not disposing of high cash reserves and relying heavily on the capital that they would have obtained by going public. What is the evidence from corporations who didn't raise additional cash? To understand the ideal aspects of a company in relation to this topic, some characteristics of those that carried out a Direct Listing were observed. The idea to be empirically proven is that a firm opting for this alternative public offering doesn't need additional capital and has sufficient cash reserves to operate comfortably. Accordingly, the following elements have been analyzed for the Direct Listings that have already happened:

1. The time between the last financing round and the Direct Listing
2. Money raised on the last financing round
3. The cash on hand, according to the Balance Sheet, at the latest available filing
4. The approximate time that the cash on the Balance Sheet would have been sufficient to cover (measured on operating expenses)

All the companies analyzed went through one last financing event in close proximity of the listing (median value is 3 months before), which makes this aspect a very important one for those who are considering taking the same route. Accordingly, they should carefully examine their likely future cash needs and proceed with organizing a financing round not too far before the listing. Also looking at the entity of the capital that was raised, this activity should be taken very seriously by Direct Listing candidates and planned in advance. In the end, in fact, the lack of capital raise of this alternative procedure has to be substituted in another way, which the empirical evidence gathered suggests being a close and sizeable funding round. Moreover, Direct Listings candidates need to have strong Balance Sheets. In particular, they need to to be very well positioned under the perspective of cash held. As gathered, all the companies were able to cover their operating expenses in the majority of cases for a time close or larger than one year, relying only on their cash balances. The robustness of their Balance Sheets is thus another requirement that successful candidates have to possess.

Direct Listings don't appear suitable for those companies that need to raise new capital with the public offering and/or have weak Balance Sheets in terms of cash position. On the contrary, they seem to perfectly represent a good choice for those firms having carried out, or planning to do so, a financing round of significant entity little time before the listing and displaying relatively strong cash reserves; these don't have the need to cause further dilution to their shareholders.

Venture Capital backing

As next, considered the great advantage that lack of dilution and lock-up agreements brings to investors, the correlation between Venture Capitals' presence and Direct Listings was analyzed. Since this class of investors is in fact particularly set to benefit from these elements, it appears likely that Direct Listings are characterized by a larger presence of Venture Capitals than IPOs happening over the same period. The data gathered displayed the following results:

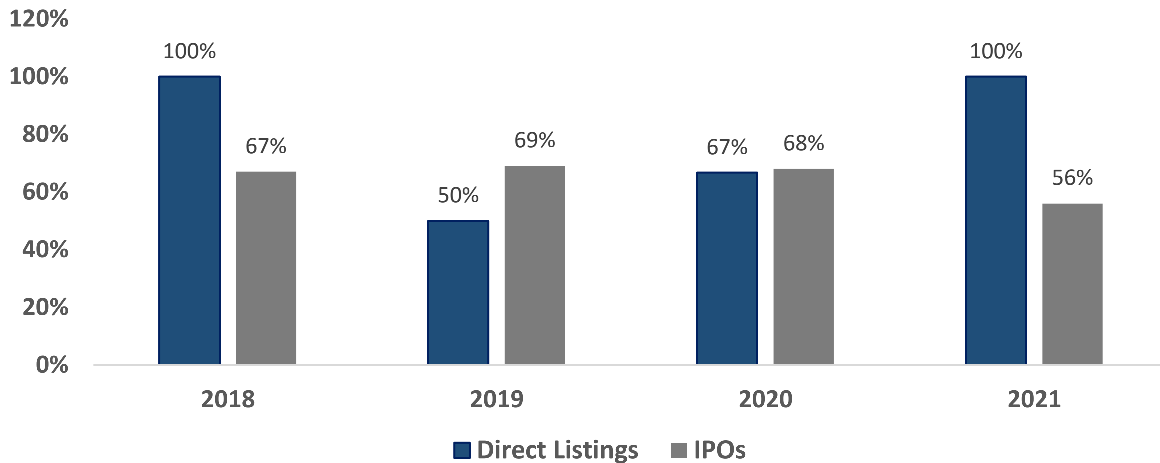

Figure 16 Comparison between VC backed Direct Listings and IPOs

A higher VC presence in Direct Listings is clear. Also doing a weighted average to account for the number of respective listings taking place in each year, the result points in the same direction: 83.35% of Direct Listings have received support from prominent VCs against 63% of IPOs. A difference of around 20% is present.

Thus, a new feature can be added to depict the perfect profile of a suitable Direct Listing candidate, besides the ones that have already been singled out. Companies with a high VC backing are incentivized and have a stronger case to refuse a traditional IPO.

Investor education activity

On the one side in IPOs there is a thorough and long Roadshow that represents the Investor Education process while on the other one in Direct Listings it has been substituted by a single Investors' day. What stands out is that a company with a low brand awareness and popularity wouldn't be able with a single investor's day, held online, to really attract interest and win investors. It is in fact simply not enough to convey its entire value proposition and peculiarities, if it's not already well-known. And this applies especially to institutional investors who require one-on-one meetings in order to be fully convinced and prompted to trust the management's vision. Thus, the objective is to evaluate the popularity of the companies who performed a Direct Listing. The aim is to understand if, given the absence of a thorough Roadshow, it can be chosen also by firms that don't necessarily enjoy high brand awareness, user diffusion and social engagement. The absence of an intensive Investor Education process seems in fact on a theorical level as a significant limitation for those companies that belong to the opposite group of Spotify, just to name one. In order to assess their popularity and brand strength, these elements were taken into consideration:

1) Unique business proposition and mission
2) User adoption and diffusion
3) Brand awareness and recognition
4) Venture Capital backing

From the examination of six companies, that have been selected as a proxy for all the ones that went through a Direct Listing process, they all enjoyed high notoriety and popularity, at least within their respective industries, at the time of going public. The factors analyzed that have contributed to this status are many and range from having a unique business as well as a large user basis and geographical diffusion up to a high brand awareness and strong VC backing. The result is that all of them were very well-known. Some, like Roblox and Coinbase, had more prominent and singular features that would surely draw more attention and make almost nonexistent the need to spread their story and investment case among investors, as everyone in the space had come in contact with them. They had in fact developed businesses that were completely different from everything else available on the market. Many others didn't have this one-of-a-kind investment story but at the same time had a combination of elements that, united, made up the perfect case to opt for a Direct Listing. These are a strong brand, with a high awareness and recognition over time, a large client base not only in numerical terms but also from a geographical standpoint, as well as other advantages like backing from prestigious VCs that surely had helped them to come under the spotlight.

Considering the evidence gathered, it doesn't seem a wise decision to replace a detailed Roadshow with a single Investors' day, unless the company is already particularly known and popular, and thus doesn't need to spread its story to attract and win new investors.

Pricing Methodology

In the last section of the research the way securities are priced was taken into consideration. Three aspects were observed in relation to this topic:

1) History of secondary transactions
2) First day trading volatility
3) Shareholder base composition and implications

The first point that was addressed is represented by the history of secondary transactions that every company possesses. They are in fact meaningful in determining the reference price for the live auction and thus play a role in the pricing of a Direct Listing. Theory largely states that from the reference price a good estimate of the opening price of the auction can be derived; the goal is to

analyze the difference between the two prices, understand from that the importance placed by the process on past secondary transactions and thus the ideal features that an eligible candidate should have in relation to this topic, as it has been done in the rest of the dissertation. Not all companies have in fact a very complete and accurate record of past private transactions, with some not having it at all; the question is then if only those who have it could decide to opt for a Direct Listing. Across the Direct Listings examined, there happens to be a consistently larger opening price than the reference price; the average difference lies at 28%, which is a significant value. Thus, the main takeaway is that the history of previous secondary transactions concerning the company's shares, in the end doesn't cover much importance in establishing the final opening price. In fact, unlike what the literature states, the difference among the two values is simply too big to justify that a firm, in order to be eligible for a Direct Listing, needs to have a complete and accurate history of secondary transactions.

The second point addressed is the first day trading volatility. Although the share price volatility has already been analyzed in depth over a previous paragraph, choosing as time interval the year following the Direct Listing or a smaller one for the latest listings, here it will be discussed with regards to the pricing methodology. Before in fact, the share price volatility has been examined over a longer time horizon and its value was thus meant to be broadly correlated with the choice of a Direct Listing; the chosen risk measures, namely standard deviation and beta, have been compared with the ones of both indices (S&P 500 and IPO Renaissance Index) and other comparable IPOs that happened over the same time. As seen before, a Direct Listing implies a long-term volatility perfectly in line with the one of IPOs happening over the same timeframe and involving firms with similar businesses and profiles. So, one might conclude that there is no major risk involved by choosing this alternative way; however, to really reach this conclusion, also the very short-term timeframe needs to be observed. To understand this, for every Direct Listing, the difference between the high and low first day price was calculated; this number was then divided for the closing price. The average first day trading volatility lies at 16%, neither excessive nor overlookable.

Lastly, given the obvious democratization of the process, the shareholder base composition has been addressed. It is in fact of high importance for a company and its shareholders to know if, by opting for a Direct Listing, there will be changes in the percentage quotas of institutional and retail investors. Since this alternative route to go public is much more transparent and accessible for everyone, on a theorical basis it could appear as more likely that retail investors' ownership represents a higher percentage of the total. To answer to this question,

data from Bloomberg has been utilized as well as one value taken from an OECD report; namely that on average the institutional ownership in the US lies at 72% of the outstanding shares of each company. For all the Direct Listings the institutional ownership has been analyzed at different temporal stages, to see whether there are significant differences with what the OECD reports for the overall US market. The institutional investors' quota has been derived at the listing date, 1 year after and as of the day of writing. Alongside also the number of institutions has been reported.

Company	Own. % 4/24/22	Number of Institutions	Own. % 1 Y after DL	Number of Institutions	Own. % at DL	Number of Institutions
Average	**75.83**	**512**	**69.51**	**616**	**18.87**	**5.7**

Table 20 Institutional ownership (full table in chapter 2)

The table shows how after approximately 1 year a similar situation to the broader market is present; the institutional investors' ownership is perfectly in line with the number extracted from the OECD report. This means that a firm choosing a Direct Listing over an IPO, unlike what might be expected from a democratized process, doesn't have to expect any difference in the ownership structure.

Summing up the results of the work, the ideal profile of a Direct Listing candidate is the following:

1) Direct Listings come with a great saving in terms of costs, both direct and indirect ones like the common underpricing. Companies aiming at cutting underwriting fees and have a total expenditure to go public approximately half the one they would face with a traditional IPO, should go for it.
2) Direct Listings don't shine in terms of financial performance, having underperformed the S&P 500 over same spans of time. Firms putting great emphasis on share price performance and shareholders' returns don't look like a great fit. However, on the risks side, no major volatility is to be expected with this alternative route. Accordingly, no specific company risk profile is needed to opt for it.
3) Being only a secondary offering, practical evidence shows that a candidate needs to carry out a last sizeable financing round little time before the Direct Listing. Moreover, it needs to dispose of a strong Balance Sheet and good cash reserves to cover operating expenses.
4) The presence and backing of prominent Venture Capitals look to be a significant incentive and a factor that influences the choice of which process to adopt to go public. Firms who have a large and strong support

from this class of investors are in practice more inclined to adopt a Direct Listing.

5) Candidates need to be popular companies with a strong brand awareness, user base and adoption as well as geographical presence. In fact, the lack of a thorough Roadshow, replaced by a single Investors' day, proves to be a significant problem for those firms which have to attract and win new investors. It doesn't seem wise for someone who is not already well known in the space to give up on the benefits of usually a two weeks Roadshow with intensive exchanges with the buy side.
6) Concerning the way securities are priced, namely a live auction instead of a Bookbuilding, some interesting details have emerged. Unlike what it has often been stated, an accurate and complete history of past secondary transactions is not necessary to carry out a Direct Listing; they are indeed used as a reference value but do not hold significant relevance. Regarding process related risk, a moderate first day trading volatility has been displayed; firms undergoing it should be prepared to experience first day volatility. On the long run instead, this metric is perfectly in line with comparable IPOs. Lastly, although the process itself provides a consistent democratization and enhances transparency, no shift in terms of shareholder base composition happens; candidates need to expect the same proportion of retail and institutional investors that they would experience with a traditional IPO.

Thus, Direct Listings have proved not to be suitable for anyone but on the contrary only for a specific set of companies that respect the above-mentioned prerequisites. Considered in fact their peculiarities and unique features, every company pondering over the choice of which process to utilize to go public should carefully evaluate these aspects in order to make a thoughtful and reasonable decision.