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# **Analysis of the impact of Covid-19 on Venture Capital and its investment practices**

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## ABSTRACT

*A large and new uncertainty was added to the economy because of the Covid-19 epidemic. To this regard, this paper aims to investigate to what extent Covid-19 pandemic impacted the venture capital industry. In this study the effects of Covid-19 are explored by conducting a survey of a significant proportion of active venture capitalists at a global scale. Respondents were asked to express which was the specific impact of Covid-19 on each phase of the investment funnel. Only a small portion (10%) of the investors claimed that they experienced a significant impact on their activities. In terms of most significant differences between pre and post Covid-19 scenarios, almost the totality of investors who used to have a cross-border investment focus before Covid-19 outbreak reported that reduced their cross-border investments in favour of more domestic ones. The biggest difficulty that venture capitalists seem to have encounter in the new context is evaluating deals. Almost half of the investors claimed that made adjustments in cash flow projections of target companies. Moreover, embryonic companies are the ones for which investors made more adjustments. Overall, no significant changes were registered in any of the investment phases of the investment funnel.*

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# **1. INTRODUCTION**

The unexpected emergence of the Covid-19 epidemic stunned the world economy. Many observers expressed concern that this shock might cause the flow of venture capital to be slowed or halted. If such catastrophic forecasts come true, it will have significant ramifications for the whole innovation ecosystem. While venture capital investment is usually characterized by considerable uncertainty, this uncertainty is normally concerned with the quality of the management team, emerging markets or technology in the embryonic stages. A large, new uncertainty was added to the economy because of the Covid-19 epidemic, and this uncertainty may extend to venture capital investments.

To this regard, this paper aims to investigate to what extent Covid-19 pandemic impacted the venture capital industry. More specifically, the research topic of this work is the analysis of the impact of the epidemic on the investment practices of venture capitalists, rather than focusing on the impact on their portfolio companies. The objective of this study is to discover how this sector, which has historically relied on networks, personal encounters and gut instinct, has been able to change and adapt to Covid-19's new economic environment.

This paper consists in three main parts:

- 1) The first one consists in an overview of the venture capital industry: some theoretical definitions about how venture capital funds are organized are presented, then follows a literature review regarding each step of the investment process and finally a presentation of the key figures of the European VC market.
- 2) The second part consists in a review of the existing literature about the impact of Covid-19 on this industry: first, the impact on the European VC market is described, focusing on the difference between the performance of VCs in 2020 in comparison to the previous years and on the effect of lockdowns. Lastly, the impact of Covid-19 on VCs' investment decisions and behaviour is explored.
- 3) The third part consists in the presentation of the methodology and results of this work that aims at investigating the impact of the pandemic of venture capital investment practices. The effects of Covid-19 are explored by conducting a survey of a significant proportion of active venture capitalists at a global scale. Respondents in the sample were

asked to express which was the specific impact of Covid-19 on each phase of the investment funnel.

### **Presentation of research questions**

The broader research question of this work investigates to what extent venture capitalists changed their investment practices. In particular, this study aims at spotting which phase of the investment funnel was mostly impacted by Covid-19 outbreak. The analysis is then narrowed down to each investment phase.

For *deal origination*, which is the process by which deals enter into consideration as potential investment prospects, the research question investigates if Covid-19 changed the way venture capitalists source investments.

*Deal screening* consists in defining some parameters that delimit the initial potential investment prospects to a manageable set of potential deals for a more in-depth evaluation. The first research question explores if Covid-19 have an impact on the importance venture capitalists attribute to the screening criteria they take into consideration when selecting investments. Moreover, given the new uncertainty introduced by the pandemic, this study investigates if in this new scenario venture capitalists are more or less likely to make gut decisions when considering an investment opportunity with respect to the pre Covid-19 scenario.

*Deal evaluation* follows the screening process of the numerous initial investment opportunities into a manageable set and consists in performing a valuation of the target company before taking the decision of making an investment. The first research question investigates what financial metrics venture capitalists used to adopt before the pandemic and which they have been using after Covid-19 outbreak. Then the most important factors that VCs take into consideration when making a valuation are explored, together with an analysis on the way VCs have made adjustments in their valuations in the post Covid-19 scenario. Lastly, this study investigates what was the target IRR of VC funds before Covid-19 outbreak and if the pandemic affected such target.

*Deal structuring* is the negotiating process, in case of a favorable outcome of the deal evaluation, with the potential investee in order to structure the deal and its contract terms.

The first research question of this work explores which is the phase of deal structuring that was mostly impacted by the pandemic. The second research questions investigates if Covid-19 contributed to make contract terms more investors friendly. To this purpose, the study aims at spotting if after the pandemic there was any shift in negotiation power more towards investors or entrepreneurs.

*Post-investment value-added activities* comprehend all the set of activities that the venture capitalist provides for assistance to the investee, in the matter of recruiting key executives and taking strategic management decisions. The first research question examines if, after Covid-19 outbreak, venture capitalists reduced the frequency with which they interact with the venture's management team. The second research question investigated to what extent the pandemic had an impact on the specific value-added activities that venture capitalists perform for portfolio companies.

The *exit* phase is the last step of the investment process where venture capitalists make the capital gain. This study investigates which were the most used exit routes adopted by VCs before the pandemic and which have been the most used after Covid-19 outbreak. Moreover, another research question explores if Covid-19 had an impact on exit decisions in terms of timing.

In addition to the research questions specific to the investment phases, this study also investigates if Covid-19 outbreak increased the overall time required to complete a deal. Moreover, it examines if the pandemic contributed to reduce cross-border investment in favor of a more domestic focus. In addition, it explores how Covid-19 impacted the portfolio of venture capitalists in terms of portions of companies severely negatively affected, moderately negatively affected and unaffected or positive affected. Lastly, this paper investigates if the pandemic affected the decisions to syndicate investments.

## **2. THE VENTURE CAPITAL INDUSTRY**

### **2.1 WHAT IS VENTURE CAPITAL**

#### **2.1.1 Definition**

When it comes to the economic resources required for financing their projects, start-up founders frequently face challenges. Financial and capital support are required to support activities such as research, product prototyping, manufacturing, patent and legal expenses, salaries, and marketing expenses. Various amounts of investment are needed at different stages of a company's growth, and these levels of investment are constantly rising over time. It's a truth that obtaining finance is one of the most difficult challenges for aspiring entrepreneurs. In fact, start-ups are constantly confronted with what is referred to as a *funding gap*. There is a funding gap when a company or project does not have enough cash, stock, or debt to cover the costs of running the business or project and the costs of future growth. Funding gaps can be closed by investment from venture capital or angel investors, equity sales, or through debt offerings and bank loans.

Venture capital is a form of private equity financing that investors provide to new firms and small businesses that are considered to have long-term growth potential. Venture capitalists invest in these early-stage companies in exchange for equity or an ownership stake. They take on the risk of funding high-risk start-ups in the expectation that some of the businesses they invest in succeed. For startups or enterprises with a short operational history, venture capital is becoming an increasingly attractive source of financing, particularly if they lack access to capital markets, bank loans, or other debt instruments.

Venture capital is included in the wide category of private equity. More precisely, venture capitalists invest in the early stages of private equity, usually when businesses have little or no revenue. That is why venture capitalists' funding rounds usually include many investors and modest ownership stakes. Given that the business should presumably be expanding, each round often involves a larger investment than the previous one. Private equity financing, on the other hand, refers to investment funds that buy and restructure companies and typically involves the purchase of a majority, if not all, of the company's stock. However, minority private equity investments, often known as growth or expansion transactions, are possible.



### **2.1.2 Classification: types of venture capitalists**

From an organizational standpoint, the literature usually distinguishes four distinct kinds of venture capital firms: *Independent venture capital* (IVC), *Corporate venture capital* (CVC), *Bank-controlled venture capital* (BVC), and *Governmental venture capital* (GVC). Ownership and governance issues are what differentiate VC investors, according to Bertoni et al. (2015), and these discrepancies influence their objectives and their investment strategies (Da Rin et al. 2013).

**ICV.** Independent VCs are often supported by a diverse group of investors and are not affiliated with any of their funding sources on an organizational level. There are three main goals for the fund: to maximize net capital gain throughout the course of the fund's existence, to increase transaction flow, and to create new rounds of funding. Independent venture capitalists need above-average returns in order to obtain further financing from other parties, and they usually play an active and on-going role in the management and monitoring of their portfolio companies' operations and performance.

Non-independent venture capital investors, often known as Captive VC investors, are organized as investment entities or as business unit inside a parent firm.

**CVC.** In the case of a Corporate venture capital vehicles, the parent company is not a non-financial corporation. These funds often seek both financial and strategic objectives, such as obtaining access to important and innovative technology, utilizing complementary resources, and gaining access to strategic alternatives, among other things. Therefore, CVC must work closely with the Research and Development (R&D) functional unit and with the business lines of the parent firm to achieve strategic alignment.

**BVC.** In the case of Bank-controlled venture capital, commercial banks are the primary financial donors to VC firms. With respect to IVCs, BVCs are under less pressure to sell their investments early and may readily contribute more money in future funding rounds. Following a strategic objective, these investors want to attract new clients for the lending and underwriting operations of their associated bank. Additionally, BVC funding has the

potential to send a signal to the market about the quality of the companies that have been selected for providing financial support.

**GVC.** Finally, in the case of Governmental venture capital the parent company is a governmental agency or body. GVCs are generally more interested in social returns than financial returns; in fact, their investment selection process is typically skewed toward ventures that produce more spillovers or localized public benefits. Their involvement aims to rectify problems on the supply-side of domestic venture capital markets, as well as to close the *funding gap* created by early-stage venture capital firms.

### **2.1.3 Structure of an Independent venture capital fund**

A venture capital firm is a partnership founded by two or more individuals - the venture capitalists. They tend to be well-versed in a variety of sectors, having worked as entrepreneurs, investors, consultants, and so on. Venture capitalists do not invest themselves money, instead, they enlist the help of other investors. Institutional investors, such as insurance companies, university endowments, pension funds and big corporations as well as high-net-worth individuals make up the majority of investors. The senior members of the VC firm raise money in the same manner that a founder would for his or her startup. To persuade these prospective investors, they contact them, present their business plans, attend a slew of meetings, and plead their case for investment. 99% of the money they raise from outside sources is invested in a venture capital fund. The VC firm's contribution is a meager 1%. A limited partnership agreement (LPA) is then in place as a result of the venture capital firm and investors pooling their funds. There are two types of shareholders in a limited partnership:

**Limited Partners (LPs).** In this context these are the individuals that provide financing to the fund, often known as passive investors. In fact, despite their importance in the transaction, they have no say in how the venture capital fund is managed. On the other hand, they are limitedly liable to the investment, which means any burden of debt would never fall on them. The LPs can be pension funds, investment funds (Funds of Funds), insurance companies, governments and other public bodies, corporate investors, individuals and banks.

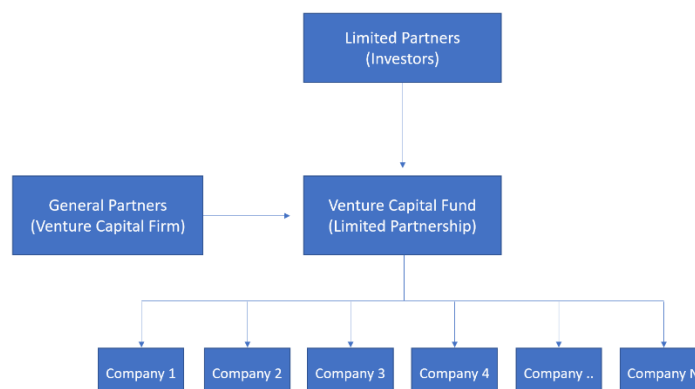
**General Partners (GPs).** In this context the venture capitalists become the General Partners. They are the day-to-day managers of the fund and are in charge of investing in startup businesses. They may be regarded of as the intermediaries who link LP's money to entrepreneurs seeking financing for their startups. In addition to financial allocation, GPs also provide value to the ventures through strategic and operational guidance, advice, network and other types of support. They have full control of the venture fund and are responsible for whatever debt may incur. No matter what, General Partners are legally obligated to behave in the best interest of the Limited Partners.

The venture capital firm manages the venture fund that was formed as a result of this limited partnership. The structure of the venture fund is displayed in Fig. 1. Here, a one-of-a-kind compensation mechanism is in place. Venture capitalists are compensated in two ways:

- 1) **Management fee.** This is the compensation paid to the venture fund's managers to cover all organizational and management costs of the fund in the form of salary. It is typically set at 2% of the venture fund's value.
- 2) **Carried interest.** It is the portion of earnings received by the venture fund's management firm in the event of a successful investment. It is typically set at 20%. Thus, even if the General Partners contribute just 1% of the venture fund's capital, they get 20% of the earnings. The remainder is distributed to the LPs.

A hurdle rate ensures that LPs get a minimum return. As a consequence, the GPs receive carried interest only when a minimum rate of return (often 8%) is reached and the LPs have received at least their original investment amount back.

**Figure 1.** Structure of a venture capital fund



#### 2.1.4 Life cycle of a venture capital fund

Each fund has an average lifespan of 8 to 12 years, during which time it may engage into and depart from all of its investment opportunities. Before making their first investment, General Partners will establish a funding objective and define a particular strategy for the fund, including favored sectors and industries, geographic areas, and financing amounts.

A venture capital fund carries out operations that are circular in practice: fundraising, investment, management, and exit phases are all steps that must be completed.

**Fundraising.** It is the first stage and it is one of the most complex activities since in this phase the GPs will have to convince investors to commit their capital for a long period, in most cases with a time frame of 10 years. Venture Capitalists offer investment memorandum to potential investors and try to prove them that they have special knowledge or insight into a certain market sector. As soon as the GPs have secured the necessary funds, the fund closes, and when the GPs find appropriate investment opportunities, they utilize the needed cash given by the LPs proportionally to their initial commitment. A crucial and very important decision for the LPs is to invest in one fund rather than another.

**Investment.** Once the fundraising stage has been successfully completed, the investment takes place. The General Partners are in charge of selecting investments. The investment process accounts for several different phases that will be presented extensively in the next chapter.

**Management.** Once the investment process has been completed, the fund's management team will have to deal with the investment management and monitoring phase. Management and monitoring aim to grow the target companies at the rate expected during the valuation stage and to create the right conditions and identify the best time for a successful exit. GPs need to assist target companies providing different types of support. For instance, by setting up an effective corporate governance mechanism, by recruiting high-profile management, by enlarging the network of the various players involved in the value chain of the target company (customers, suppliers, strategic partnerships, consultants, banks, etc), by supporting the entrepreneurs in a constant mentorship relationship. Moreover, GPs have the task of protecting the value that the companies have created. The best way to preserve this value is the initial negotiation of a set of

covenants used to establish rules and limits to possible situations one might encounter in the participation relationship.

**Exit.** The exit is the final stage of the life cycle of the venture capital fund. This moment is crucial for the fund as it is at this stage that the revenue is actually generated, through a capital gain, for the venture capital firm. Unlike public equity, an exit transaction for a venture capital fund is much more complicated as there is no regulated trading market with high liquidity. GPs face major pricing and liquidity issues. There are five types of exit options: (1) Sale to an industrial player, (2) Management buyout, (3) IPO, (4) Sale to private equity firm, (5) Write-off.

*Sale to an industrial player.* This type of exit happens through a simple negotiation process, even if it may be difficult to find a balance in the negotiation not only with the possible buyer, but also with the entrepreneur who might be against the entry of an unknown third party into the company. This option is very common in cases where there are covenants such as drag-along.

*Management buyout.* This type of exit consists in the sale of the shares held by the investor to the original entrepreneur who will again gain total control of the company. This mechanism is facilitated by put or call options included in the contractual clause. The main problem to be faced in this case is the actual availability of liquidity on the part of the entrepreneur for the re-purchase of the shares, which could entail the risk of a devaluation of the company at the time of the sale.

*IPO.* This type of exit consists in achieving a stock market listing of the target company. This is the most congenial option for GPs as they can maximize their capital gains. On the other hand, a stock market listing is also the most complicated route to pursue, as the company has to meet certain financial parameters, as well as being solid and attractive enough to succeed in the market.

*Sale to private equity firm.* This type of exit is quite complicated as the two players will have completely opposite objectives: on the one hand the exiting venture capital firm would like to maximize its profits, maximizing the capital gain with a price as high as possible, on the other hand the acquiring private equity firm would like to minimize the acquisition price of the stake as much as possible as it will have to work on that to build its capital gain in a future sale.

*Write-off.* This type of exit simply consists in the removal of the shareholding from the fund's portfolio with the failure of the investment as a consequence of the default of the target company.

### 2.1.5 Startups' financing cycle and venture capital

To understand how venture capital financing works, it is necessary to realize that each startup goes through a series of development stages, each of which corresponds to an investment stage. Typically, there are several distinct stages in a startup's financing cycle, as shown in Fig. 2:

**Pre-seed.** This stage refers to the time during which a business's founders are establishing its operations. At this point, the most frequent sources of funding are the founders themselves, close friends, supporters, and family.

**Seed.** Seed financing is the initial step of formal equity financing. It is usually the first formal sum of money raised by a business venture or company. Seed financing enables a business to finance its first stages, such as market research and product development. To accomplish these objectives, seed money is utilized to hire a founding team that will help the business in defining its final product and the targeted audience. The potential investors in this stage of financing are usually founders, friends, family, incubators, angel investors and, eventually, venture capital firms.

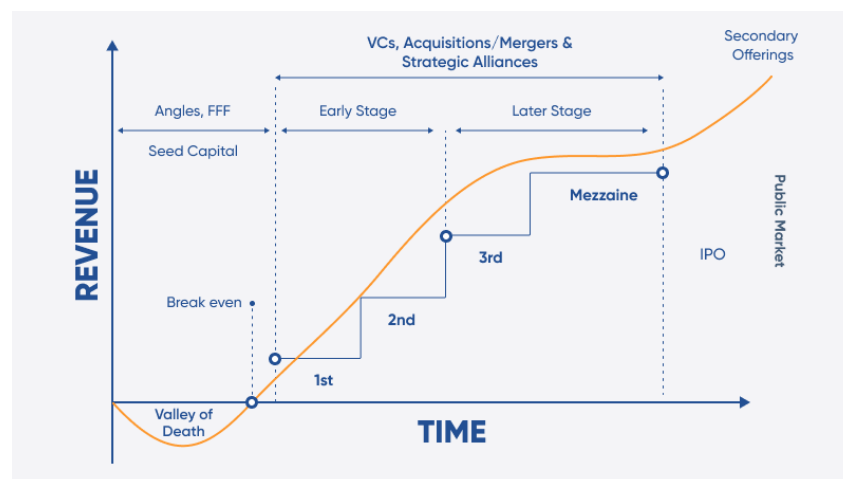
**Early Stage.** Venture capitalists invest throughout all phases of a company's growth, although they concentrate their efforts on the early stages of the company's development via *Series A* and *Series B* investment rounds. *Series A* funding rounds are infusions of capital needed to attack the market, enter new ones, or launch "collateral" products/services, develop distribution channels, and so on. Instead, *Series B* funding round are greater in terms of investment amounts and the startup's risk of failure is smaller than in *Series A* round. This category includes medium-sized start-ups that are looking to move into the scale-up phase by acquiring other businesses or entering new geographic and product markets.

**Later Stage.** Businesses that make it to *Series C* financing rounds have already achieved considerable success. These businesses seek extra financing to assist them in developing

new goods, expanding into new markets, or even acquiring other businesses. In *Series C* rounds, investors invest in the core of successful companies in the hope of recouping more than twice their investment. *Series C* financing is targeted at expanding the business, ensuring that it grows as fast and effectively as feasible. As the business becomes less hazardous, more investors are attracted to participate. Hedge funds, investment banks, private equity companies, and major secondary market groupings are among the types of investors that participate in *Series C*, in addition to the types of investors previously presented. The rationale for this is because the firm has already shown that it has a successful business strategy; new investors come to the table expecting to spend large amounts of money into businesses that are already flourishing as a way of securing their own place as business leaders. Additional money is given throughout the sustained development stage via *Series C, D*, and subsequent rounds of capital raising. These rounds of financing are often sought after by companies looking for one more boost before going public, or by companies that have not yet met the objectives they established after *Series C* fundraising.

To avoid concentrating all of the money in a single round, venture capitalists use staging financing to spread investments. This lowers the overall risk. Of course, this investment route isn't followed by every venture, but for successful start-ups, the total amount invested and the number of financing rounds are usually higher.

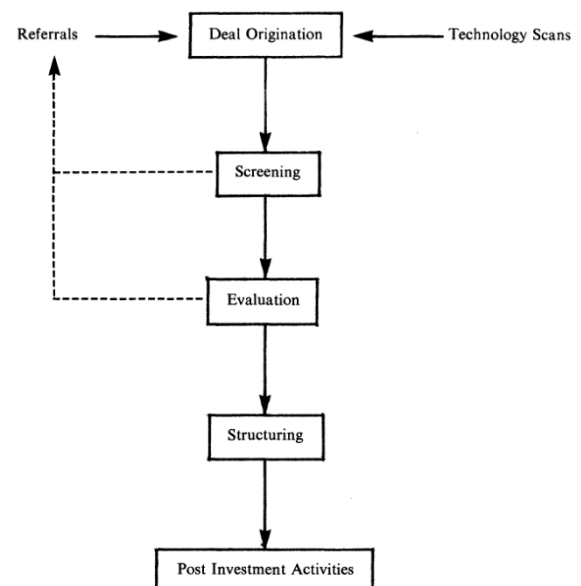
**Figure 2.** Startup financing cycle



Source: Lanars (2021)

## 2.2 THE VENTURE CAPITAL INVESTMENT PROCESS

In this chapter the investment process of a Venture Capitalist is described. Several studies (Hoffman, 1972; Wells, 1974; Dorsey, 1977; Tyebjee and Bruno, 1984; Silver, 1985; Hall and Hofer, 1993; Van Osnabrugge, 2000; and Robinson, 2000) were conducted on this subject adopting a process perspective to describe the investment activity of the Venture Capitalist. A review of the existing literature suggests that all authors proposed models which presented the following three “salient steps” that Venture Capitalist follow along their investment process: *Pre-deal*, *Deal* and *Post Deal*. Each model then slightly differs in terms of subdivision of each salient step in sub-phases, according to the level of detail. The main reference adopted in the present study is the one conceived by Tyebjee and Bruno (1984), which modeled the investment activity of a venture capitalist as a sequential process involving five different steps (see Fig. 3). (1) **Deal Origination**, which comprehends the process by which deals enter into consideration as potential investment prospects; (2) **Deal screening**, which consists in defining some parameters that delimit the initial potential investment prospects to a manageable set of potential deals for a more in-depth evaluation; (3) **Deal evaluation**, which is the assessment of perceived risk and expected return of a prospective venture under consideration; (4) **Deal structuring**, which is the negotiating process, that follows in case of a favorable outcome of the deal evaluation, with the potential investee in order to structure the deal and its contract terms; (5) **Post-investment activities**, which comprehends all the set of activities that the venture capitalist provides for assistance to the investee, in the matter of recruiting key executives and taking strategic management decisions.



**Figure 3.**

Decision Process Model of Venture Capitalist Investment Activity

Source: Tyebjee and Bruno (1984)



In the following paragraphs, each step of the Investment Process as modelled by Tyebjee and Bruno (1984) is analysed more in depth, providing the main findings of the existent literature on the subject. The salient features that distinguish each step are to be interpreted as general investment practices applied by venture capitalists in the Pre-Covid-19 scenario.

### **2.2.1 Deal Origination**

Deal origination, the process through which potential investment opportunities are generated, is an important predictor of success for Venture Capitalists. According to Sørensen (2007), deal origination is, together with deal screening, a more important driver of returns (60%) for the VC than the Post-investment activities (40%). Investment prospects are identified by investors through many different sources.

Tyebjee and Bruno (1984) state that deals originate from three sources: cold calls from entrepreneurs, referrals and active search. In 25% of cases in their sample, deals were originated from cold calls from entrepreneurs who decided to directly get into contact with investors. In 65% of cases, deals were originated from a referral process: referrals usually came from the VC community (33%), by personal networks and previous investees (40%), by banks (10%) and by investment brokers (17%). The remaining 10% of cases were deals originated from active search by the venture capitalist. Investors constantly monitor the environment to spot potential investment prospects through their informal network and attend key conventions and conferences.

Gompers, Gornall, Kaplan and Strebulaev (2020) conducted a similar research on a wide sample of 446 respondents to whom they asked to identify how they source investments. According to their findings, deals are sourced mainly through VCs professional network (over 30% of cases). Then, almost 30% of deals are proactively self-generated; other types of sources are referrals from other investors (20%) and referrals from a portfolio company (8%). Surprisingly, only 10% of deals originated from cold call by entrepreneurs and, lastly, very few deals originated from quantitative sourcing, a method that involves data analysis from many different sources to seek for investment prospects likely to have high returns. A remarkable result of this study is that there is significant variation in the way VC source opportunities depending on their stage: late-stage investors are more likely to proactively self-generate deals in comparison to early-stage investors. In fact, the latter

are more likely to invest in deals that originated from unsolicited calls from entrepreneurs or that are referred by their portfolio companies (Gompers, Gornall, Kaplan and Strebulaev, 2020).

### **2.2.2 Deal Screening**

During Deal Origination step, the VC gathers a relatively initial large number of potential investment prospects. Wells (1974), in his research study, finds that the average number of investment opportunities that a VC receives in a year is 450 – by far a bigger number of deals than a VC can fund. Investors then need to screen the investment opportunities that came to their attention to a manageable set of potential deals for a more in-depth evaluation: this process is the so-called Deal Screening.

Several studies tried to analyse the criteria that VCs apply to narrow hundreds of potential opportunities to a very small set. According to Tyebjee and Bruno (1984), venture capitalists' screening process is based on four criteria: (1) size of investment and investment policy of the fund, (2) technology and market sector of the venture, (3) geographical location of the venture and (4) geographic location of the venture.

(1) *Size of investment and investment policy of the fund.* Regarding the first criteria, they state that the lower limit of the investment policy is resultant from the fact that the staff of the VC cannot afford to spread its portfolio over a huge number of small deals because the management of each deal, regardless of the investment size, requires a lot of effort and time from the VC staff. The upper limit of the investment policy is instead more flexible than the lower limit because depends on the diversification strategy of ventures that the VC wants to put in place; moreover, VCs may decide to invest in larger deals with the intent of seeking for participation of other VC funds.

(2) *The technology and market sector of the venture.* In the telephone survey that Tyebjee and Bruno (1984) proposed to 46 VCs, they found that over 60% of the respondents used this screening criterion. This finds explanation in the fact that when a VC invests in a venture, it is betting on the future of a particular technology or market. Therefore, it goes without saying that the venture capitalist is expected to be familiar with the technology and/or the market of the venture in which it is investing. This implies that a VC usually specializes in a few technologies and/or markets due to the impossibility for a fund to

develop a sufficient level of expertise across a large number of technologies and/or markets. Tyebjee and Bruno (1984) also analysed, in a different study involving 90 deals, what are the preferences of VCs in terms of technology and market sectors that they select. According to their finding, VCs prefer emerging technologies industries over mature ones (in more than 75% of cases), industrial market over the consumer market (90% of cases for the former and only 10% of cases for the latter) , and the product market over the service market.

(3) *Geographic location of the venture.* Tyebjee and Bruno (1984) found that 19% of the Venture Capitalists they interviewed used the geographic criteria to screen their potential investment prospects. The adoption of this criterion finds explanation in the fact that VCs expect to regularly meet the management team of the venture, therefore, they tend to pick investment opportunities that are based in a metropolitan area easily reachable at a manageable distance. At the same time, VCs portfolios exhibit this geographic specialization which results from the tendency of entrepreneurs to search for capital close to the venture's location, given their stronger network in the vicinity.

(4) *Stage of financing.* Tyebjee and Bruno (1984) report that almost 50% of the 46 VCs they interviewed used this screening criterion. They also analysed, in another study involving 90 deals, VCs preferences in terms of targeted stage: almost half of the deals were startups (45.6%), in 22.2% of cases were first round expansion deals and 21% were second round expansion deals.

The literature provides different explanation about the tendency of VCs to focus more on the jokey (management team) or the horse (product, technology, business model) when it comes to screening investments. Gompers, Gornall, Kaplan and Strebulaev, (2020) asked to a sample of 558 respondents to identify the most important factors that VCs take into account in the screening process of potential deals. According to their findings, the management team (jokey) was considered as the most important factor by 47% of Venture Capitalists. The business-related factors (horse) were instead considered, as a whole, as the most important by only 36% of VC: respectively, 13% of respondents stated product was the most important factor, 10% considered business model as the most relevant, 8% affirmed the market and 6% the industry. Also Fit with fund was considerably relevant: 14% of VCs referred to it as the most important factor. Lastly, VC's ability to add value and valuation were indicated as the most important factors by only 2% and 1% of VCs

respectively. The results of the present survey also show some remarkable variation across clusters of respondents (Gompers, Gornall, Kaplan and Strebulaev, 2020). The management team (jokey) resulted to be more relevant for early-stage funds, whereas late-stage funds tend to focus more on business-related factors (horse) in their screening process. The horse was considered as more important than the jokey by Healthcare investors, and in relation to IT investors. This finds explanation in the importance of IP and non-human assets in healthcare businesses more than in the IT landscape. Lastly, the results of the present survey supported the findings of Gompers et al. (2016) providing evidence that late-stage funds consider business-related factors and valuation as the most important factors, similarly to private equity funds.

### 2.2.3 Deal Evaluation

The next step in the venture capital investment process is deal evaluation: in fact, after screening the numerous initial investment opportunities to a manageable set, VCs need to value a company before taking the decision of making an investment. In this section will be presented the main findings that previous studies provided about the way VCs assess the ventures. According to finance theory, a potential investment should be assessed performing a DCF or NPV analysis based on the business plan provided by the venture's management team. VCs perform an assessment of perceived risk and expected return of a prospective venture under consideration, but few formalize the analysis into an actual computation. Instead, the evaluation procedure consists mainly in a subjective assessment of the investment opportunity based on a multi-dimensional set of criteria. Tyebjee and Bruno (1984) modelled the investment decision process of VCs through three subsequent steps (Fig. 4): (1) Evaluation, (2) Risk-Return Assessment and (3) Decision.

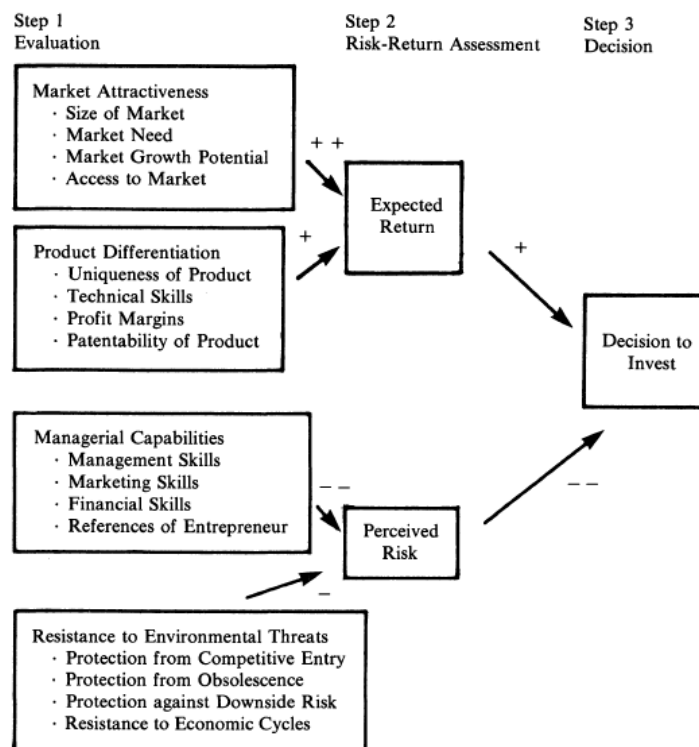
**(1) Evaluation.** According to their findings, VCs assess investment opportunities on the basis of five main characteristics: a) *Market Attractiveness*, which is measured in terms of market need, size, potential growth and accessibility; b) *Product Differentiation*, which incorporates the ability of the entrepreneur to conceive a unique product that will discourage competition and provide high profit margin; c) *Managerial Capabilities*, which refers to a multifaceted set of characteristics that VCs take into consideration when it comes to evaluate the founders of the venture, d) *Environmental Threat Resistance*, which alludes to the ability of the venture to face potential external threats deriving, for

example, from the entrance of new competitors in the market, varying economic conditions or sudden technology changes; e) *Cash-Out Potential*, a measure of the feasibility of the liquidation or cash-out of the investment at the appropriate time.

**(2) Risk-Return Assessment.** Tyebjee and Bruno (1984) determined, through a linear regression model, the relationship existing between these key characteristics and the estimation of Expected Return and Risk by VCs. They found out that Market Attractiveness is the characteristic that has the biggest effect on the expected return, followed by Product Differentiation. Instead, in terms of impact on reducing the riskiness of the potential deal, Managerial capabilities have the strongest effect, followed by Resistance to Environmental threats. Cash-Out Potential seem not to influence perceived risk nor expected return.

**(3) Decision.** The last step consists in taking the final decision to either invest in the venture or not: the decision is determined by weighting perceived risk and return as assessed in the previous step. VCs are risk-averse and profit-oriented and are willing to bear high risks if they are offset by potential large profits.

**Figure 4.** Venture Capital Investment Decision Process



Source: Tyebjee and Bruno (1984)

Gompers, Gornall, Kaplan and Strebulaev (2020) focused on investigating which valuation methods are adopted by VCs, by conducting a survey on a sample of 346 respondents. Contrarily to what corporate finance theory suggests, NPVs methods are only adopted by 22% of respondents in the sample. Instead, the most adopted methods are Multiples of Invested Capital (adopted by 63% of the sample) and IRR (adopted by 42%). Not very surprisingly, 9% of the sample stated they don't adopt any valuation method when it comes to evaluate an investment opportunity. This is particularly true for VCs that target early-stage: indeed, early-stage VCs, smaller VCs and IT VCs affirmed that they often make gut decisions. This finds an explanation in the fact that early-stage VCs usually need to deal with lack of historical records about past performance and large uncertainty of future cash-flows.

Gompers, Gornall, Kaplan and Strebulaev (2020) determined that the average Multiple of Invested Capital required by VCs in the sample under examination is 5.5, with a tendency for early-stage and small VCs to require higher multiples with respect to late-stage and larger VCs. The same pattern applies to required IRR: the average required IRR in the sample is 31%, but results showed evidence that late-stage and larger VCs have lower IRR requirements with respect to early-stage and smaller ones. The authors of the study suggest that this behaviour could be traced back to the fact that early-stage VCs asks for higher IRRs due to the higher risk of failure which distinguishes their typical investments, whereas small VCs may deal with capital constraints or invest in early-stage deals.

Gompers, Gornall, Kaplan and Strebulaev (2020) also deepened valuation techniques adopted by VCs by analysing whether they would forecast cash flows in order to use valuation metrics such as NPV, IRR or multiples and, if so, what would be the average forecasting period. Their findings report that 20% of VCs in their sample do not forecast cash flows of the venture: the biggest variance in behaviour is once again observed between early-stage and late-stage investors, with the former cluster presenting the biggest prevalence of non-forecasting. This behaviour is again consistent with the lack of historical operating results for early-stage deals which lead investors to rely on more qualitative considerations. On the other hand, among those who do forecast, the median forecasting period was found to be three to four years.

When it comes to evaluate a deal, VCs do not only rely on financial analysis but also take into consideration other factors that play an essential role in deciding what valuation to offer a venture. According to Gompers, Gornall, Kaplan and Strebulaev (2020), the most important factors that VCs take into account are exit considerations (for 46% of the VCs in their sample), followed by considerations about comparable companies (for 29% of the sample). The third important factor is desired ownership (for 18%), whereas competitive pressure deriving from other investors was reported as the most important factor only in 3% of cases. Regarding the latter factor, some differences are identified between IT VCs, which reported to consider competitive pressure more important than what healthcare VCs claimed, suggesting that investing in IT is more competitive than investing in the healthcare sector. Another interesting result concerns the difference in behaviour between late-stage VCs, that report to value exit considerations more, whereas early-stage investors give priority to desired ownership.

Lastly, after investigating deal valuation methods adopted by VCs, it is interesting to analyse a-posteriori to what extent, on average, portfolio companies meet the projections that VCs computed when evaluating a deal to decide whether to invest or not. According to Gompers, Gornall, Kaplan and Strebulaev (2020), VCs state that less than 30% of their portfolio companies meet projections. Still due to the greater uncertainty, the biggest difference is to be found in early-stage VCs that report that their portfolio companies are less likely to meet projections (26% of portfolio companies on average) than with respect to what late-stage VCs report (33% on average).

#### **2.2.4 Deal Structuring**

Once the venture capitalist has determined, in the deal evaluation phase, if the potential investment opportunity is acceptable, the deal can be finalized only if the VC and the entrepreneur are able to come to a mutual agreement concerning several aspects of the deal: this phase is the so-called deal structuring. In first place, the agreement establishes the price of the deal: this corresponds to the equity share of the venture that the entrepreneur will concede to the VC in exchange for the capital (Golden, 1981). Contract terms also define the type of financing, determining if it will be staged or not and if convertible securities will be used. Moreover, the mutual agreement establishes protective

covenants to prevent potential agency problems between the entrepreneur and the Venture Capitalist.

The most common contractual terms are the following ones: (1) **cash-flow rights** (investment amount, stake of ownership, anti-dilution protection, dividends, option pool and valuation), (2) **control rights** (board control, prorata rights), (3) **liquidation rights** (liquidation preferences, participation rights, and redemption rights), (4) **employment terms** (vesting).

**Cash-flow rights.** *Anti-dilution protection* provides the investor with more shares if the company raises further capital at a cheaper price in a new round of equity financing. *Full ratchet anti-dilution* is a very onerous form of this term. A fully ratchet protects early-stage investors by guaranteeing that their percentage ownership does not decrease as a result of subsequent rounds of financing. This clause also provides some cost protection in the event that subsequent rounds' price is lower than the first round's. *Non-cumulative dividends* essentially equate to no dividend, while *cumulative dividends* enable the yearly payout to accrue. An *option pool* is a collection of shares put aside for the purpose of compensating and incentivizing workers.

**Control rights.** Investors with *prorata rights* are eligible to participate in the next round of financing.

**Liquidation rights.** Investors with a *liquidation preference* are given first priority in a sale or liquidation. In a sale or liquidation, venture capitalists may use *participation rights* to get both upside and downside protection, so that investors first receive their downside protection and then share in the upside. Investors with *redemption rights* have the option of redeeming their shares or demanding a refund of the initial investment amount from the business.

**Employment terms.** The term *vesting* refers to the partial loss of shares by business founders or workers who depart.

Gompers, Gornall, Kaplan and Strebulaev (2020) investigated which contract terms VCs usually discuss with entrepreneurs and how flexible they are when negotiating them. In



their study the authors conducted a survey to 524 VCs. Results show that VCs are not very flexible on contract terms in general, as the score for most of the terms goes between the range “not very flexible” and “somewhat flexible”. The only term that, on average, scored significantly above “not very flexible” is dividends. This outcome confirms that structuring contract terms is an extremely important step for VCs: the provisions that are negotiated are able to put in place value maximizing contracts. (Kaplan and Strömberg, 2003; Gompers, Gornall, Kaplan and Strebulaev, 2020). The terms on which VCs are less flexible are, in descending order, prorated rights (which got an average score of -47 on a range from -100, not at all flexible, to +100, extremely flexible), liquidation preference (-29), antidilution protection (-25), valuation (-20), board control (-17) and vesting (-17). The provisions which resulted to be more negotiable are, in descending order, dividends (+28), redemption rights (+4), option pool (+2), investment amount (-0) and participation (-2). A significant variance in the results is registered for Healthcare VCs which resulted to be considerably less flexible than IT VCs, specially on control rights, stake of ownership, valuation and dividends.

### **2.2.5 Post Investment activities**

Once the deal has been finalized and the investment has been made, VCs' role evolves from investor to collaborator. In fact, Venture Capitalists are keenly involved in managing and assisting portfolio companies, either via a formal representation on the board of directors or via exercising an informal influence in the market or in the network of suppliers and creditors. The intensity and frequency of the involvement of the VC in the venture's operations differ from Venture Capitalist to Venture Capitalist, but usually a VC is not willing to control day-to-day operations (Tyebjee and Bruno, 1984). Previous research analysed how VCs are essential in recruiting key executives and structuring the board (Lerner, 1995), Hellmann and Puri (2002) found that VCs are crucial to the professionalization of the venture, Kaplan and Strömberg (2004) reported that VCs, when they take the decision to make an investment in a venture, they look forward to add value to the portfolio company. Gompers, Gornall, Kaplan and Strebulaev (2020) investigated what type of value-adding activities a Venture Capital firm provide to portfolio companies by conducting a survey to 444 VCs. 87% of VCs in the sample reported to provide strategic guidance, 72% stated that they help portfolio companies to connect with

investors in future rounds (this was particularly true for early-stage VCs), 69% indicated that they facilitate companies to connect to customers, 65% of the sample said to provide operational guidance, and a significant portion reported to help in recruiting board members (58% of the VCs in the sample) and employees (46% of the sample). Moreover, in terms of frequency with which VCs interact with the management of portfolio companies, 60% of the sample declared to interact at least once per week, which provides evidence of a significant involvement of Venture Capitalists in managing portfolio companies.

### **2.2.6 Exit**

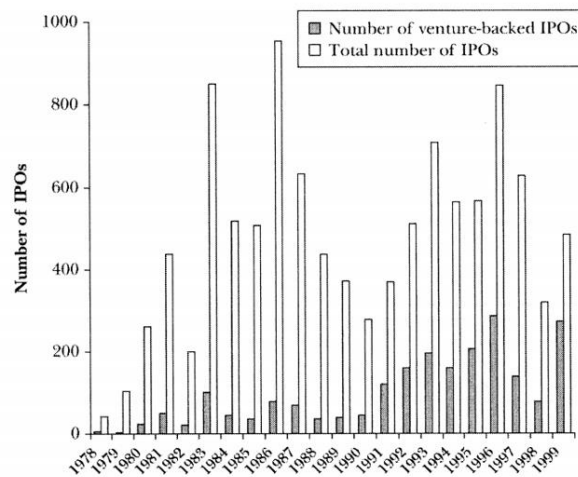
Due to the fact that venture capitalists invest in private companies through funds that are typically structured as ten-year vehicles and because venture capitalists earn their profit share or carry only when their investments return capital to their investors, the timing and type of exit are critical to the success of VC investments.

Gompers, Gornall, Kaplan and Strebulaev (2020) investigated how venture capitalists typically exit their investments. In their study they report that for the average VC firm, the 53% of exits are through M&A, 15% are through IPOs, and 32% are failures. Regarding instead the extent to which external capital market cycles affect venture capitalists' investment and exit decisions, the VCs interviewed by the authors reported market cycles had only a modest impact on their investment decisions. Instead, they claimed the impact on timing decisions for their exits was much greater, as VCs prefer to exit when markets are robust.

It is generally accepted and shown in literature that venture investors' most successful exit is an initial public offering (IPO). Fig. 5 and Fig. 6 show the development of IPOs activities, with particular reference to venture-backed IPOs. We note a curious phenomenon: although the percentage of venture-backed IPOs increases from 10% to 56% from the 1980s to 1999, the portion of capital obtained from venture-backed IPOs compared to the total remains almost constant, passing over the same period from 17% to 20%. Barry, Muscardella, Peavy and Vetsuypens (1990), state that, on average, public stock offerings had a less favorable impact on company earnings on the first day of trading than comparable non-venture backed firms. It is explained by the authors as proof that the market values the help of venture capitalists, since the market does not demand large discounts when the IPO occurs. One of the major contributing factors to this occurrence

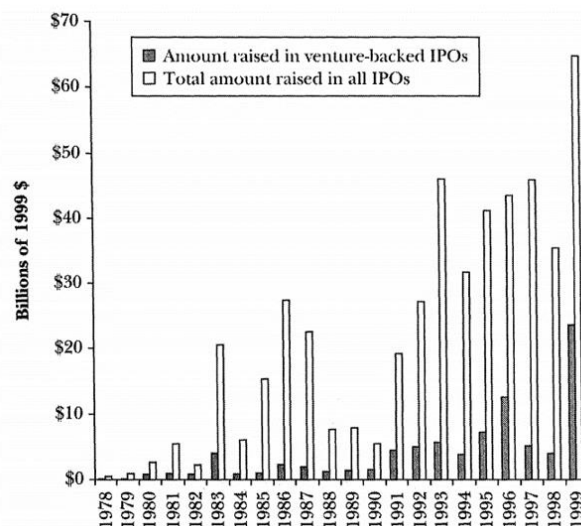
is that venture capitalists retain a significant portion of their ownership positions after the IPO, helping to ensure the real value of the shares issued to the public. In agreement with Megginson and Weiss (1991), underpricing phenomenon is uncommon in venture-backed IPOs. The main factor that induces venture capitalists to prefer an exit in the form of an IPO, as written by Lerner (1994b), is the option to choose the moment to exit the investment, taking advantage of moments when the market is particularly favorable to this type of operation, even if the degree of flexibility largely depends on the size and health of the venture capital itself.

**Figure 5.** The number of venture-backed initial public offerings (IPOs) and the total number of IPOs in the United States by year.



Sources: Barry (1990), Ritter (1998) Gompers and Lerner (2000).

**Figure 6.** US Venture-backed IPOs and AM IPOs by Dollar Volume By Year.



Sources: Barry (1990), Ritter (1998) Gompers and Lerner (2000).

### **2.2.7 Syndication**

It's not uncommon in the venture capital industry for several investors to take over financing of a single target business. In the context of syndicated investing, many parties join forces in an investment to provide the target business with physical and intangible resources like expertise and consulting, which it may need for its growth, in addition to the monetary amount paid out as part of the transaction (De Clercq and Dimov, 2004). Moreover, the due diligence expenses for valuing the business, structuring the deal, and determining shareholding fees are shared by all investors. Indeed, venture capitalists may compare their expertise with that of other investors because of this investing mechanism. (Cherif and Elouaer, 2005).

It is possible that knowledge asymmetry exists among the investment's members, leading in an over or underestimate of the business under evaluation. However, the positive features of syndication are widely reported in the literature: the network of investors improves the flow of information and operational monitoring, reducing the difficulties associated with information asymmetry toward the target business. (Bergemann and Hege, 1998; Lockett and Wright, 1999; Manigart et al., 2000).

## **2.3 THE VENTURE CAPITAL MARKET**

### **2.3.1 The birth of the venture capital industry**

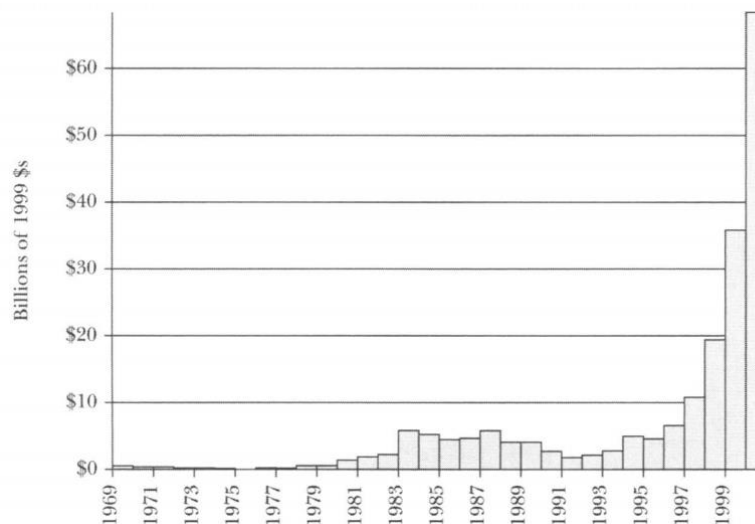
“American Research and Development” (ARD), founded in 1946 by MIT President Karl Compton, Harvard professor General Georges F. Doriot, and local business leaders, was the first company to use investment techniques, capital management, organizational structure and to have a business approach very similar to what would become the venture capital industry at the end of the twentieth century: for these reasons ARD is widely recognized in the academic world as the first venture capital in history, in the current sense of the term. In reality, this tiny group of investors made high-risk investments in start-up businesses that were based on technology developed during World War II. In support of this theory, there is a close similarity between the pattern of the company's returns and that of the current Venture Capital. Even more impressively, during the course of the ARD's 26-year existence, it generated nearly half of its profits from a single investment of \$70k made in 1957 in DEC (Digital Equipment Company), which was eventually valued at \$355 million. The ARD was structured as a closed-end fund, whose investors could buy and sell individual shares of the company itself on an exchange. The organizational structure of the capital provided the business with the ability to invest in illiquid assets since the system ensured that investors would be repaid within a certain and well-defined period. Because of the liquidity of the investment, which enabled the investor to exchange his or her shares at any moment, all classes of investors were permitted to participate in these shares under the Securities and Exchange Commission's regulations. According to Liles (1977), private investors were the most attracted to this company model, while institutional investors deemed it to be too hazardous to participate in.

In 1958, “Draper, Gaither and Anderson” was the first Venture Capital to be structured as a limited partnership. This was a legal form widely used in the post-war period, especially for the development of real estate projects. Unlike closed-end funds, whose life was assumed to be indefinite, within this legal structure the investor was offered the possibility of investing in the same companies in which the venture capitalists owned their own shares, which implied the possibility to choose when and where to realize the capital gain.

According to Noone and Rubel (1970), the establishment of the "SBIC" program, which was a component of the federal policy for the growth of the venture capital sector that sought to offset the technical progress of the Soviet Union during the space race, was a significant step forward. They noted how the excessive number of constraints necessary to obtain generous marching funds or guaranteed loans discouraged established players, but allowed the birth of new ones. These, however, largely collapsed during the 60s and 70s, often due to fraudulent incidents.

Commitments to venture capital industry increased rapidly in the late 1970s and in the early part of the following decade. Part of this success is due to the interpretation that the U.S. Department of Labor made, in 1979, of its "prudent man" rule, explicitly allowing pension funds to invest in venture capital. So, in only eight years, pension funds grew from representing 15 percent of all assets invested to accounting for more than half of the entire funds. Fig. 7 shows how commitments to the Venture Capital Industry increased from 1979 on.

**Figure 7.** Commitments to the venture capital industry



*Source: Venture Economics and Asset Alternatives.*

*Note: Commitments are defined as the amount of money that is committed to US venture capital funds in that year.*

Beginning at the end of the 1960s and continuing until at least the mid-1990s, there was a gradual movement in investment into the Information Technology sector. In 1999, almost 60% of investments were destined to IT and about 10% was destined to life

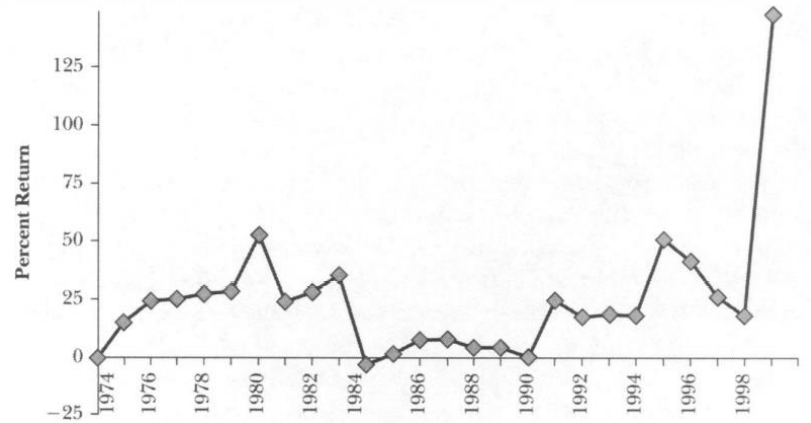
sciences and medical companies. Many of the successful companies in the High Tech and service industry between the 1980s and 1990s, including Apple Computer, Microsoft, Cisco Systems and Starbucks, were funded by venture capitalists. From a geographical standpoint, California seems to be the gravitational core of the new business, with more than a third of the invested money being channeled therein.

In the final decade of the twentieth century, we have seen a significant rise in the amount of money spent in venture capital operations. More precisely, the literature agrees to attribute this boost to the increase in the average return of the whole industry, which was due to the growing number of successful IPOs in the market: this instrument, increasingly used in the Anglo-Saxon world, ensured venture capitalists a more profitable exit on average. The capital commitment has grown by a factor of 20 in the final decade of the twentieth century, with the majority of the growth coming from pension funds, private businesses, and governmental bodies. During this time period, there was a diversification of the sources of invested money: the practice of corporates participating in venture capital, whether independent or corporate venture capital, dates back to this time period. This diversification of the investment strategy by the corporate world is accompanied by the push, that has gone through the entire private sector of big companies, in rethinking and restructuring the innovation process, in an attempt to find alternative solutions to the centralization of the R&D process in internal laboratories and departments. Given the successful examples of start-ups born in the 90s with the support of a venture capitalist, among which eBay and Yahoo !, despite the fewer skills and less availability of money, these small companies managed to anticipate and steal the market from more established companies. A potential solution to the issue in the Venture Capital sector was discovered as a result of this, prompting large corporations to re-interpret the innovation process in a more general sense..

Figure 8 depicts the evolution in the average yearly rate of return obtained by venture capital investors in the United States from 1974 to 2000. There is consensus in the literature to state that the development of Venture Capital in the 1990s, as well as the rise in average returns, were both influenced by new technological developments. The Internet and its applications were the most significant. As a result, companies from a wide range of sectors attempted to understand and use these new technologies by questioning the established methods of their respective businesses in order to obtain a competitive edge over their rivals. According to them, the venture capital sector served as a facilitator for

the creation of these new technologies, while also becoming a source of competitive advantage in its own right. A flourishing and proactive ecosystem between large corporations and the venture capital community was established at the turn of the millennium, which took shape through the signing of partnerships and joint ventures for the development of new products and services with a high technological content.

**Figure 8.** Average annual rate of return that investors in U.S. venture capital funds received.



*Note: Returns are net of fees and profit-sharing.  
Source: Compiled from Venture Economics data.*

Because of the rise in the average returns of the sector, this new form of investment became extremely appealing to individual investors who were prepared to put part of their money into it. Accordingly, while the dominant organizational structure of venture capital remained limited partnerships, a new confirmation of publicly traded venture funds was experienced, allowing small and single investors to participate in investments that were previously out of reach for this segment of the market.

### 2.3.2 The European market of venture capital

The previous paragraph illustrates how the venture capital industry was born in the US and how it reached a meaningful size in the final decade of the twentieth century with the rise of Internet Technology sector. In this chapter, instead, the objective is to provide an overview of the venture capital market in Europe. The following data presented refer to

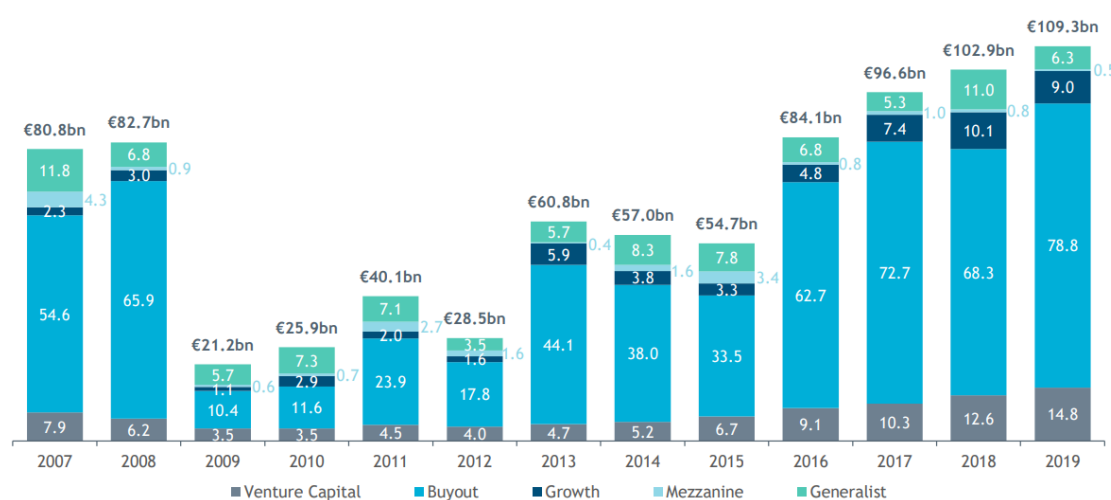


the end of 2019, therefore it consists of a snapshot of the European market right before Covid-19 outbreak.

### 2.3.2.1 Fundraising

As venture capital falls under the umbrella of the broader industry of private equity, some introductory figures about the European private equity market as a whole are first provided. Total private equity fundraising in Europe during 2019 reached €109 bn, showing a percentage growth of 6% from 2018. This is the greatest total in the previous decade and maintains the increasing trend in the industry that has been seen since 2012. In total, 578 funds raised capital during 2019, which corresponds to an increase of 4% in the average number of funds raised over the previous five years. Fig. 9 reports an overview of private equity fundraising across 2007-2019 by sub-category.

**Figure 9.** Overview of private equity fundraising (2007-2019).  
Incremental amount raised during the year (€ bn).

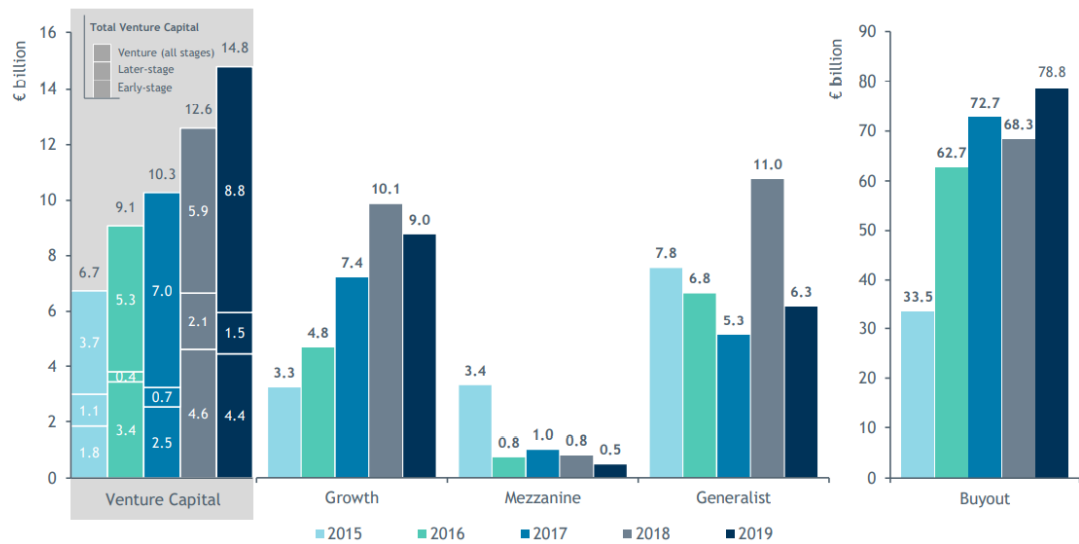


Source: Invest Europe / EDC.

Note: Buyout includes rescue/ turnaround and replacement capital funds.

Within the broad spectrum of private equity, venture capital fundraising reached €15 bn in 2019 with 256 funds, representing a 17 percent increase over the previous year and the seventh consecutive year of year-on-year growth. The majority of the money collected went to first-time funds, with the remainder going to follow-on funds. As shown in Fig. 10, funds specializing in all phases of venture capital continued to raise the vast majority of funds (60%), followed by the funds investing in early-stage only and, lastly, by those investing in late-stage only.

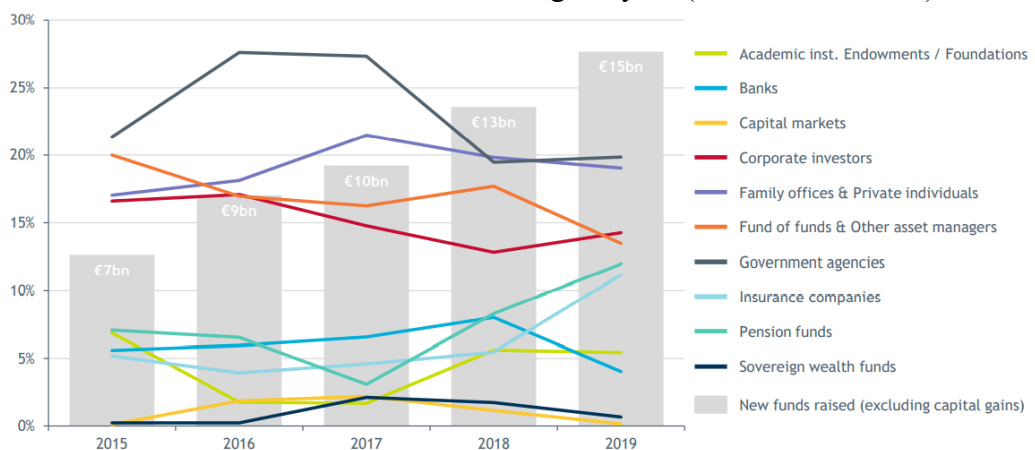
**Figure 10. Funds raised by fund stage focus (2015-2019)**  
Incremental amount raised during the year (€ bn)



Source: Invest Europe / EDC.

In 2019 the top three sources of funds were government agencies (20%), family offices & private individuals (19%), and corporate investors (14%). Fig. 11 shows the evolution of fundraising by investor type across the years 2015-2019.

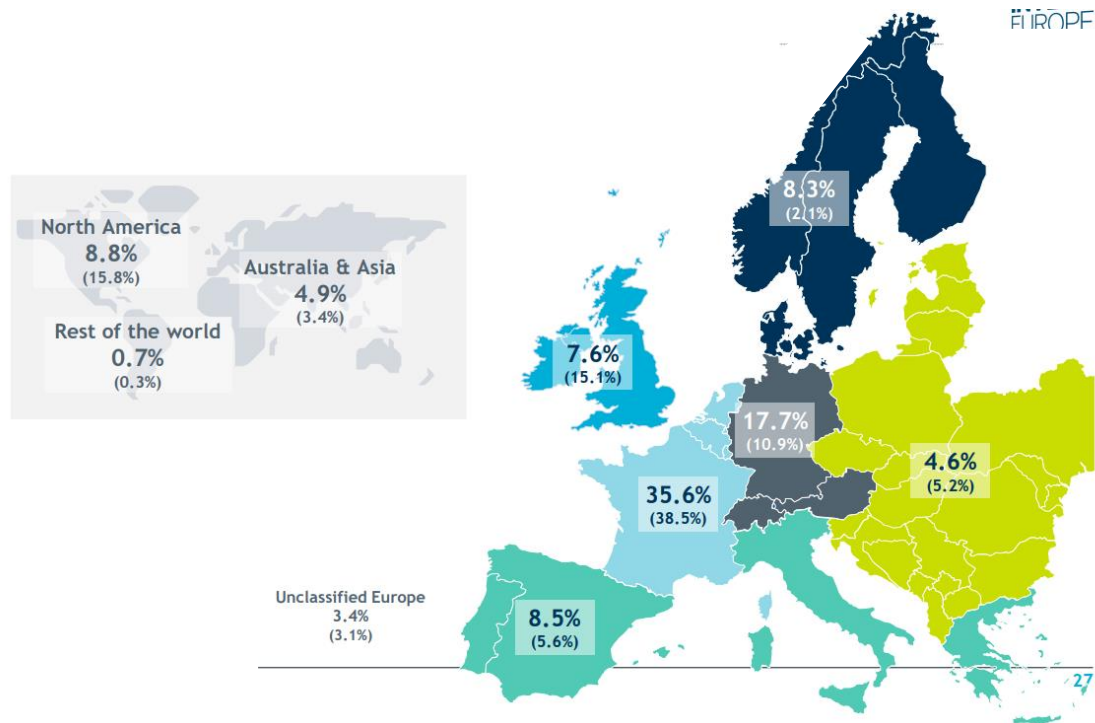
**Figure 11. Funds raised by type of investor (2015-2019).**  
Incremental amount raised during the year (% of total amount)



Source: Invest Europe / EDC.

In terms of geographic provenance of the funds raised, Fig. 12 provides an overview of fundraising geographic breakdown. In 2019 the France & Benelux area remained the most important source of capital (36%), followed by the DACH region (18%).

**Figure 12.** Fundraising geographic breakdown - 2019 (2018).  
Source of funds - % of total amount

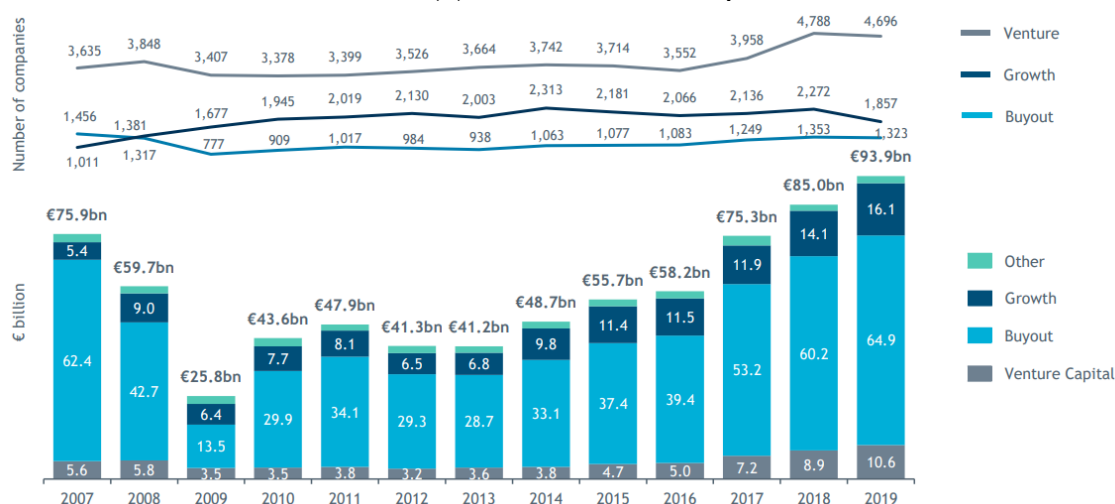


Source: Invest Europe / EDC.

### 2.3.2.2 Investing

As displayed in Fig. 13, total equity investment in European businesses rose 10% year on year reaching €94 bn in 2019. This is the greatest reported level of investment ever. Investment was made in 7,902 companies, an increase of 8% above the average for the preceding five years, with 84% of them being small and medium-sized enterprises (SMEs). 63% of total equity was invested domestically, 29% intra-Europe, and 8% was from non-European sources. Investments were focused in three major industries: ICT (27%), consumer goods and services (23%), and business products and services (19%).

**Figure 13.** Overview of private equity investment in Europe (2007-2019).  
Amount (€) and number of companies.

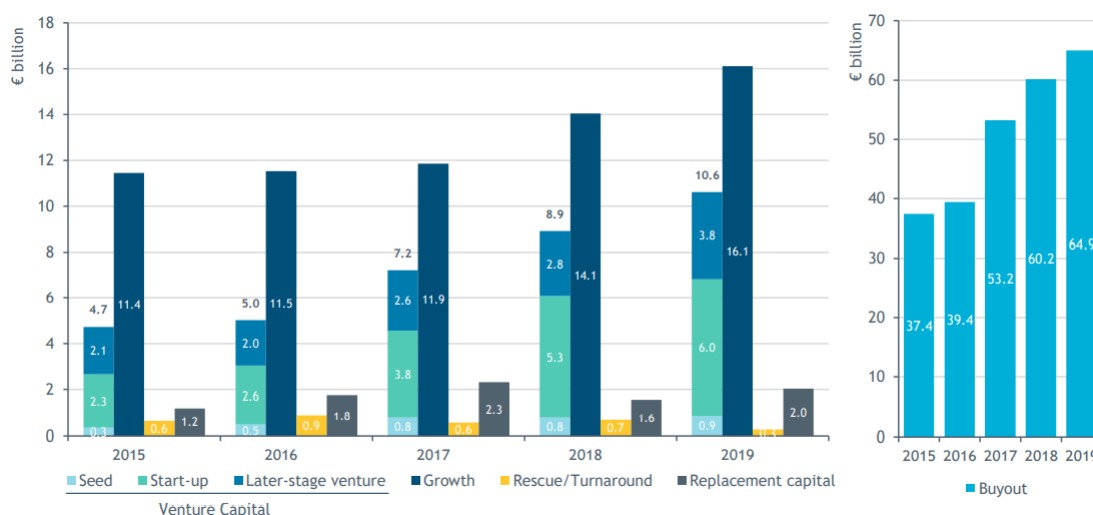


Source: Invest Europe / EDC.

Note: Other includes Rescue/Turnaround and Replacement capital.

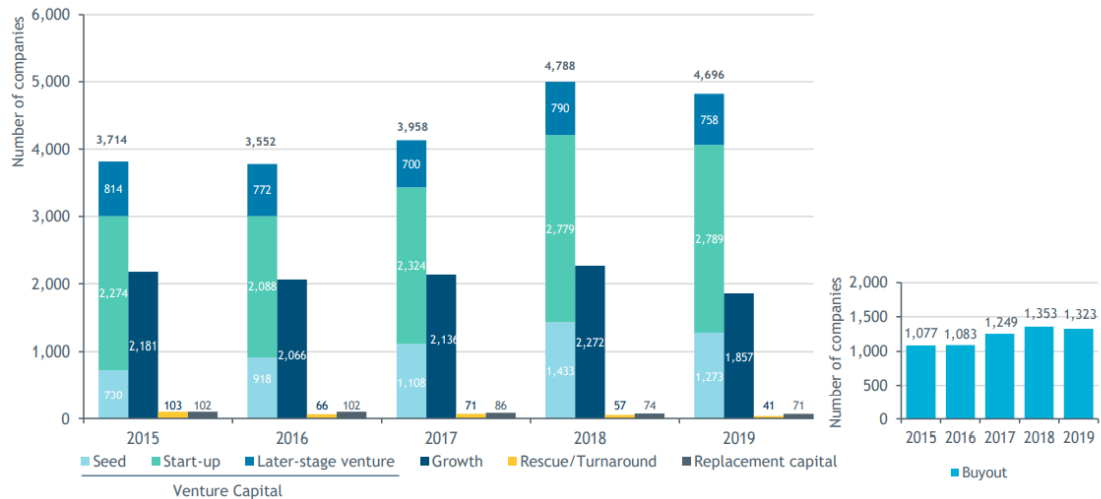
Zooming on Venture capital investment, in 2019 the total amount invested reached 11€ bn. This is 19% growth from the year before and represents uninterrupted growth since 2013. Venture capital funds backed 4696 European companies in 2019. Among these, the largest portion of companies receiving venture capital investment were startups (56%), whose total amount invested reached 6 €bn. Fig. 14 and Fig 15. report investments by stage across 2015-2019, in terms of amount and number of companies respectively.

**Figure 14.** Investments by stage (2007-2019).  
Amount (€ bn)



Source: Invest Europe / EDC.

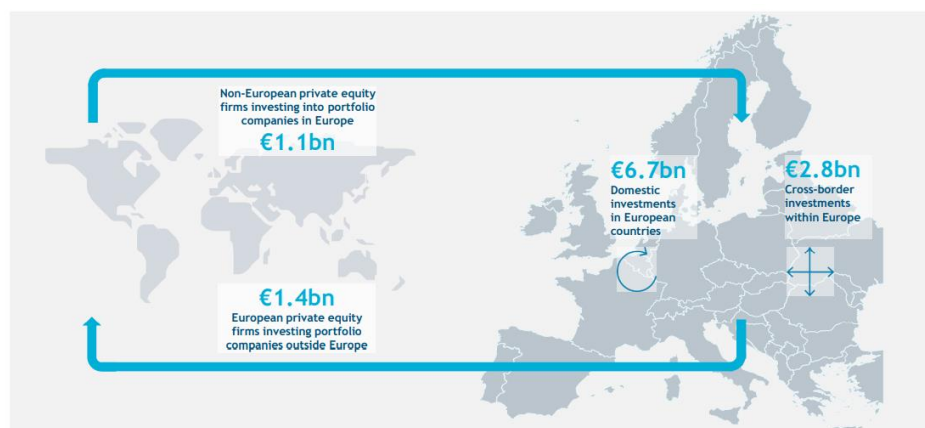
**Figure 15.** Investments by stage (2007-2019).  
Number of companies.



Source: Invest Europe / EDC.

As just presented, total venture capital investment in Europe amounted 11 € bn in 2019. In terms of geographical flow, the largest portion are domestic investments in European countries (€ 6.7 bn). €1.4 bn are investments by European venture capital firms in companies outside Europe, €1.1 bn come from Non-European venture capital firms investing into European portfolio companies. Lastly, €2.8 bn are cross-border investments within Europe. Such figures are illustrated in Fig. 16.

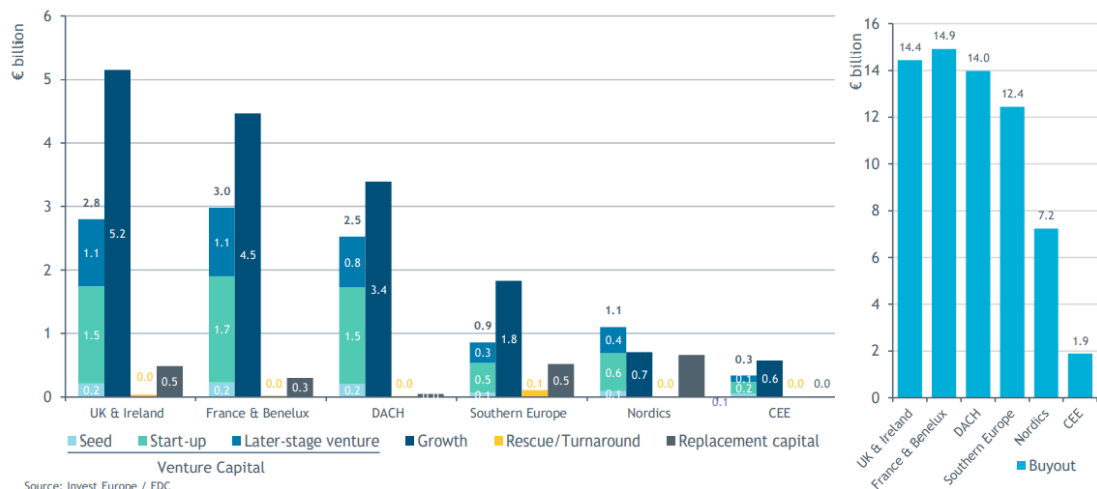
**Figure 16.** Geographical investment flows (2019).  
Domestic vs International investments (amount).



Source: Invest Europe / EDC.

In 2019, the France & Benelux area was the one managing the largest amount of investments, followed by UKI and DACH region, as illustrated in Fig. 17.

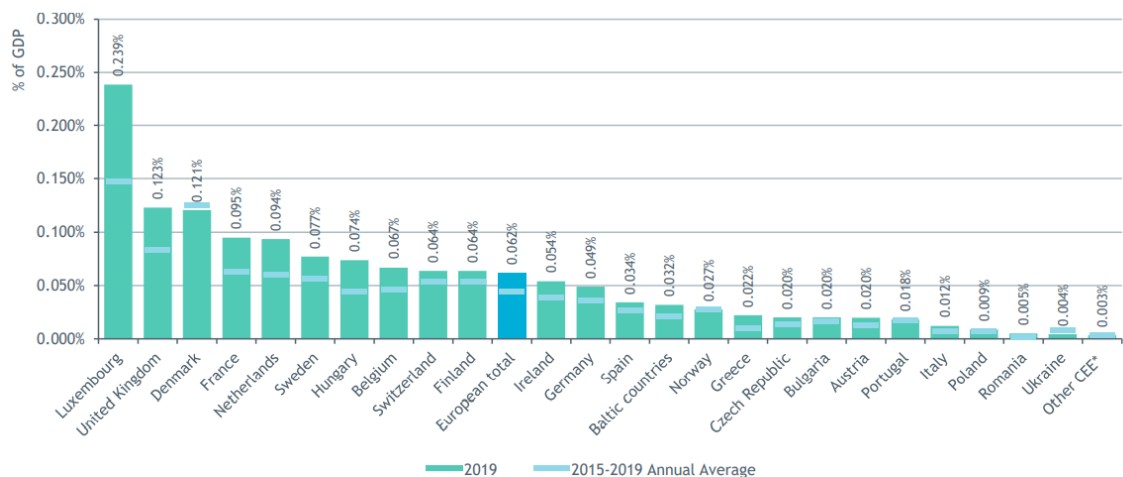
**Figure 17.** Investments by stage and region (2019).  
Market statistics (amount).



Source: Invest Europe / EDC.

In the most recent years the venture capital industry has been significantly growing in terms of size and relevance. Such increase can be appreciated by analysing the amount of venture capital investments per country in relation to national GDP. Fig. 18 and Fig. 19 illustrates investments as percentages of GDP, respectively by location of the venture capital firm and location of portfolio companies.

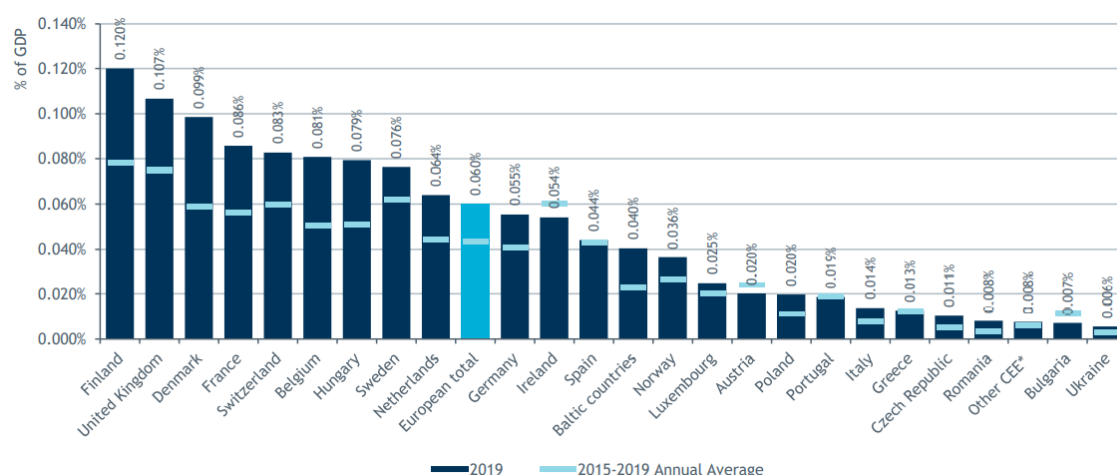
**Figure 18.** Investments as % of GDP (2019).  
Location of the venture capital firm.



Source: Invest Europe / EDC.

Note: \*Other CEE consists of Bosnia-Herzegovina, Croatia, Macedonia, Moldova, Montenegro, Serbia, Slovakia, Slovenia.

**Figure 19.** Investments as % of GDP (2019).  
Location of the portfolio company.

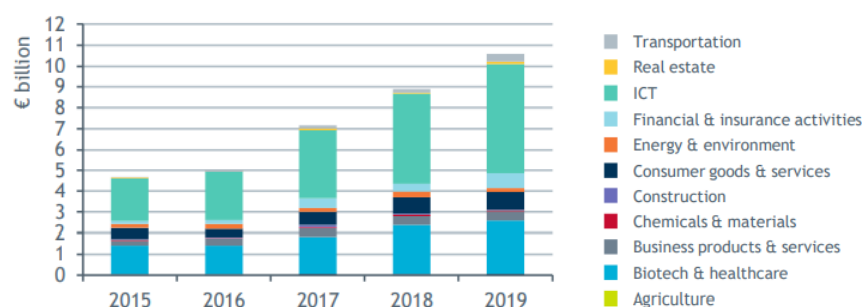


Source: Invest Europe / EDC.

Note: \*Other CEE consists of Bosnia-Herzegovina, Croatia, Macedonia, Moldova, Montenegro, Serbia, Slovakia, Slovenia.

By sector, ICT accounts for almost half of venture capital investment, followed by biotech & healthcare (24%) and consumer goods & services (8%), as displayed in Fig. 20.

**Figure 20.** Investments by sector (2015-2019).  
Amount (€ bn).

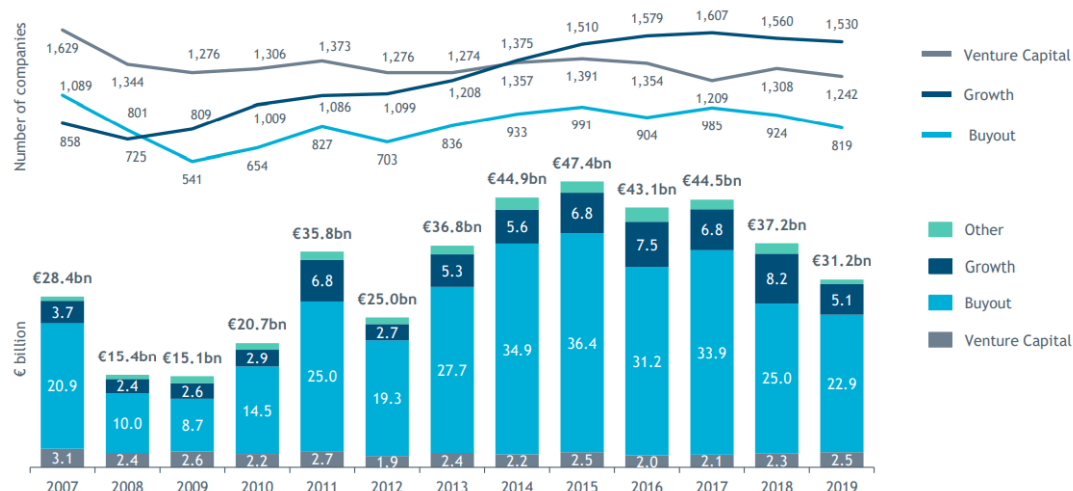


Source: Invest Europe / EDC.

### 2.3.2.3 Divestments

Fig. 21 presents an overview of divestments at cost for the whole private equity industry. Divestments at cost, measured by the amount of former equity invested, amounted at €31 bn and 3,533 European companies exited in 2019. A trend of increasing amount of divestments over the past six years is appreciable.

**Figure 21.** Divestments at cost at a glance (2007-2019).  
Amount and number of companies (€ bn).



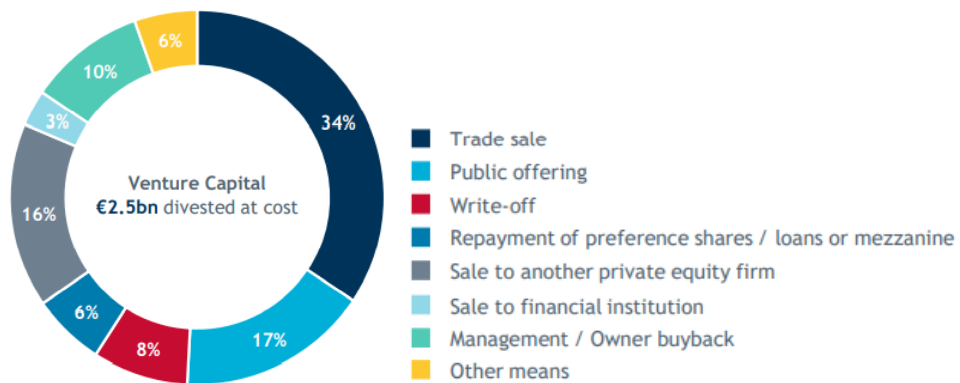
Source: Invest Europe / EDC.

Note: Other includes Rescue/Turnaround and Replacement capital.

More specifically, the overall value of venture divestments rose by 10% year on year to €2.5 bn in 2019, the highest amount since 2011. A total of 1,242 businesses were divested, representing a 5% drop from the previous year. On one hand, as illustrated in Fig. 22, the main exit route by amount was by trade sale (34%), followed by public offering (17%) and sale to another private equity firm (16%). On the other hand, the main exit routes by number of companies were repayment of preference shares / loans or mezzanine (33%), write off (18%), and trade sale (16%).



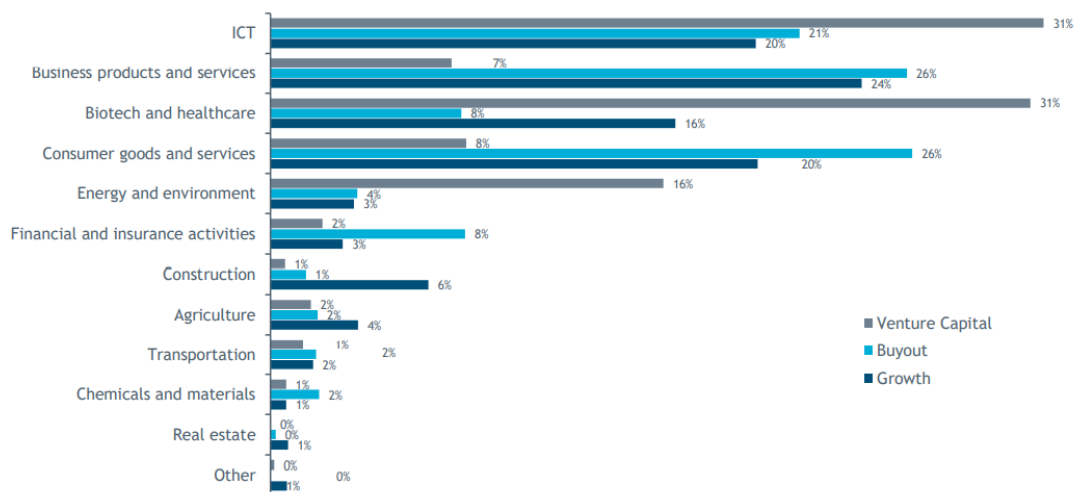
**Figure 22.** Divestments at cost by exit route (2019).  
% of amount.



Source: Invest Europe / EDC.

Just like for investments, 36% of exited companies were in the ICT sector, followed by biotech and healthcare (18%) and business products and services (16%), as illustrated in Fig. 23.

**Figure 23.** Divestments at cost by sector (2019).  
(Amount - excluding write-offs).



Source: Invest Europe / EDC.

### **3. COVID-19 AND THE VENTURE CAPITAL LANDSCAPE**

#### **3.1 THE IMPACT OF COVID-19 ON THE EUROPEAN VC MARKET**

##### **3.1.1 Covid-19 crisis**

In late 2019 and early 2020, a new coronavirus epidemic denominated “Covid-19” broke out in Wuhan, China. The epidemic, which initially remained confined to the Asian countries where it originated, quickly spread to other countries around the world in the weeks following its first appearance, resulting into a worldwide epidemic. Covid-19 was officially declared a pandemic by the World Health Organization (WHO) on March 11, 2020. The initial health crisis soon turned into an economic crisis, mainly due to social distancing policies that, on the one hand, helped to reduce the number of new infections but, on the other hand, curbed the economic and financial activities of the countries that adopted them.

With respect to the Global Financial Crisis in 2008, Covid-19 crisis presents several substantial differences. In first place, the geographic impact was different: in fact, the massive freeze in production in 2020 affected almost the entire globe. Such catastrophic effects at global scale were never reached by the GFC in 2008. It is also worth noting that for the first time since the Great Depression, both developed and emerging economies have been involved in the crisis. Secondly, in 2008 the crisis began with the total disruption of the US real estate and financial markets, which spread to the financial and real economy in the rest of the world with some delay. The COVID-19 pandemic, instead, had a much more radical and sudden effect by completely and immediately knocking out the real economy, resulting in an exogenous and symmetrical shock that affected both the demand and the supply side simultaneously. In fact, in contrast to the 2008 financial crisis, global GDP growth has not only stagnated, but has fallen by more than 2%, considering that projected global growth before the pandemic took place was +3%. Another difference lies in the fact that, in past crises, stress conditions usually mainly affected manufacturing, as a consequence of the fall in investments, while for services the effect was generally not as huge, as consumer demand was less affected. However, this is not the case in the current crisis due to Covid-19 pandemic, as in the peak months of the lockdown the contraction recorded for services was even worse than for manufacturing. Lastly, in

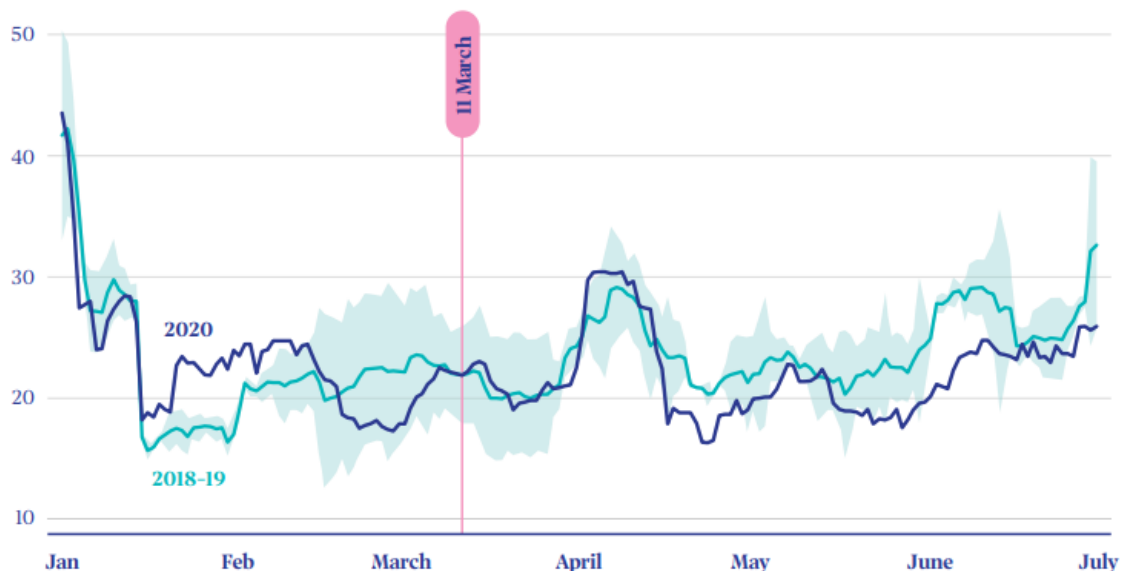
Covid-19 crisis a divergence between the performance of finance and the real economy has been registered. Indeed, financial indicators have shown stronger prospects for recovery than the real economy, and this divergence can be interpreted as the result of greater volatility in the financial markets, which are more sensitive to 'positive' news about support for the economy. In fact, governments have introduced unprecedented measures to support the economy, with central banks providing subsidised loans to the banking sector to encourage credit to businesses or planning to buy corporate bonds, even those with low ratings.

### 3.1.2 European VC firms' performance in 2020 compared to pervious years

The COVID-19 pandemic had a remarkable effect on every aspect of our personal and professional lives, even in the venture capital industry. In the new business environment, both venture capitalists and entrepreneurs found themselves unable to go on as usual with their operations.

Weekly data presented in Fig. 24 indicate that new venture capital investments in Europe were considerably greater from mid-January to mid-February 2020 than they were on average in 2018 and 2019. However, approximately one month after March 11<sup>th</sup> 2020, the day Covid-19 was officially declared a pandemic by the World Health Organization (WHO), the venture capital sector saw a significant drop in the number of investments, reaching a decrease of 13.6% in the number of new deals.

**Figure 24.** Number of daily new VC deals in Europe (by-weekly moving average).



● 2020 ● 2018-2019 average 95% confidence interval

Source: Invest Europe.

Surprisingly, a corresponding decline in the overall amount of new venture capital investments is not registered. As a matter of fact, volumes up to the middle of 2020 were similar to the average for 2018-2019, as illustrated in Fig. 25. Therefore, despite venture capital firms completed fewer transactions, those that did invested provided, on average, larger financing (approximately 19.3 % more capital).

**Figure 25.** Total daily VC volumes for new investments in Europe (€M, by-weekly moving average).

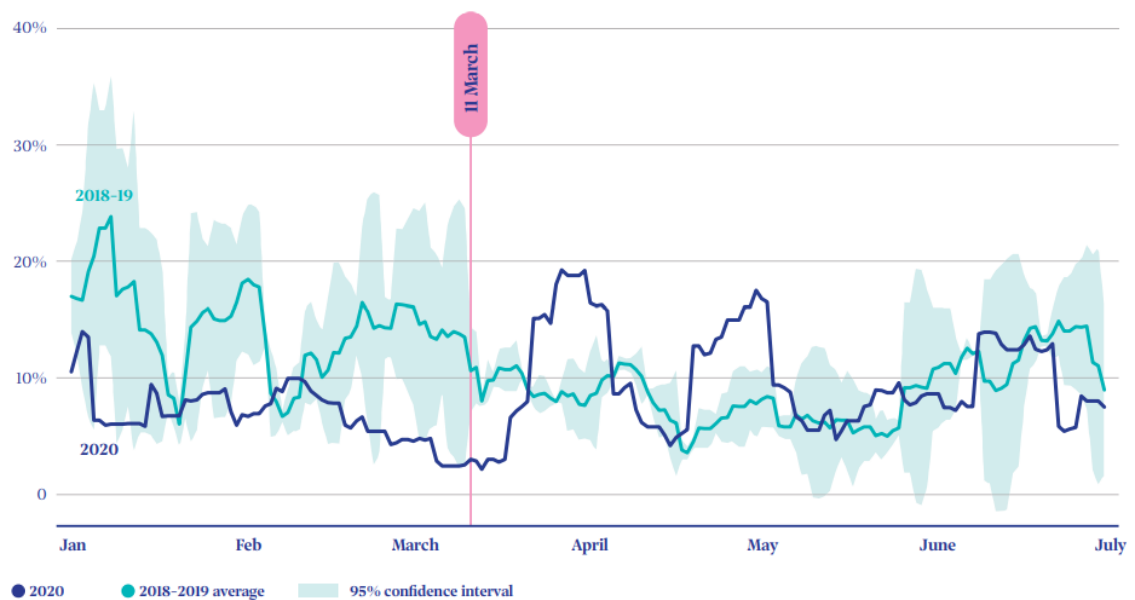


Source: Invest Europe.

It is noteworthy that there is not comparable pattern in the case of follow-on financing. One potential explanation is that venture capital companies deliberately provided more financing to new start-ups in order to assist them during the harsh context of Covid-19 pandemic, while they kept maintaining their usual emphasis on business growth. Exit rates, instead, registered a significant fall (by 43%), in the first half of 2020, as a result of increased market volatility and substantial travel bans and, more generally, difficulties in conducting business during the first half of the year.

Perhaps unexpectedly, the pandemic did not have a disproportionate impact on particular types of venture capital funding. There is little variation across various sectors of the economy, phases of venture capital investment, ages of invested companies, or other types of breakdowns. However, there are a few notable outliers, among which the healthcare sector, an obvious “winner” in terms of new deals. Healthcare fared much better than biotech in terms of both number of transactions and invested volume. Indeed, several venture capital firms recognized new possibilities or chose to continue funding established projects in the healthcare sector. As shown in Fig. 26, after the outbreak of the pandemic, overall investment volumes in this sector significantly increased.

**Figure 26.** Share of daily VC volumes invested in healthcare in Europe (bi-weekly moving average)



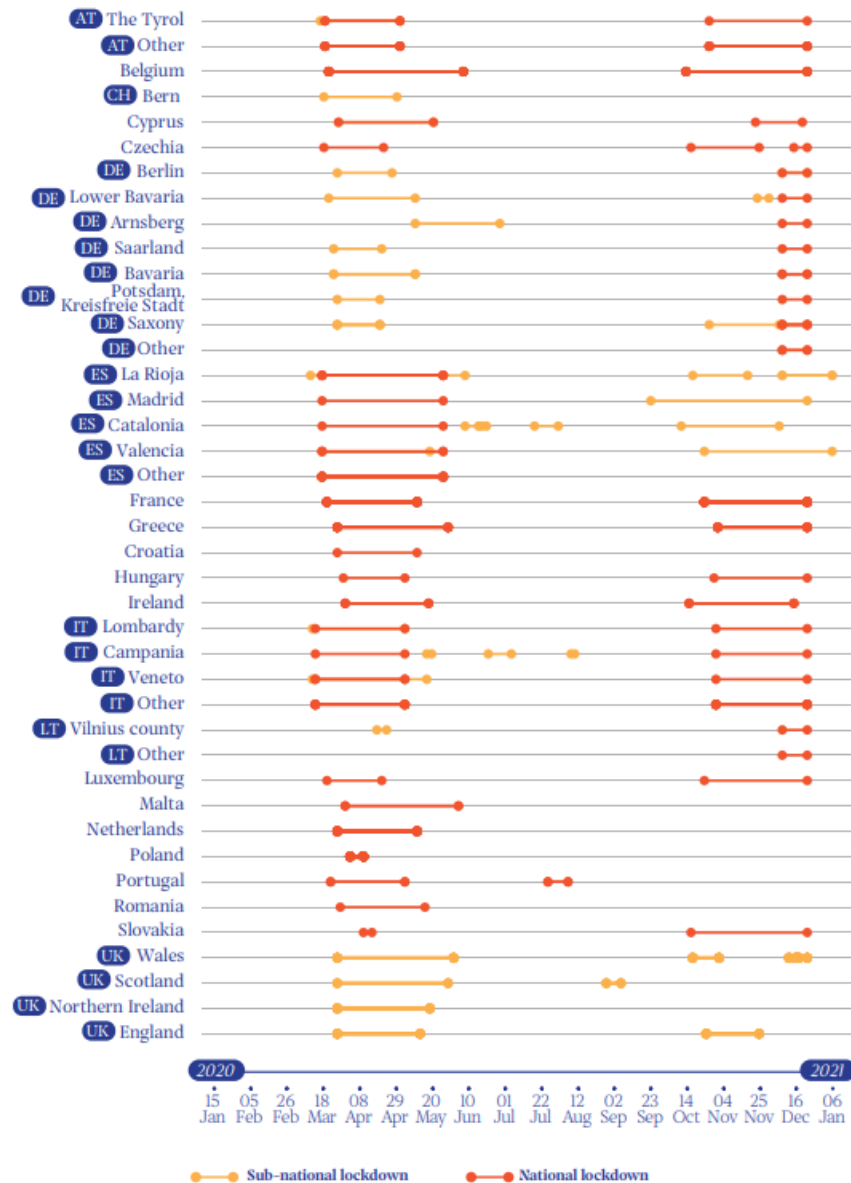
*Source: Invest Europe.*

### 3.1.3 The effects of lockdowns on the European venture capital industry

In reaction to the Covid-19 epidemic governments adopted several measures among which lockdowns, quarantines, and curfews. Such procedures severely limited mobility, which had far-reaching social and economic limitations and costs. Because of their drawbacks, governments were hesitant in enforcing such rules and, as a consequence, lockdowns have occurred throughout Europe at different times and to different extents,

as illustrated in Fig. 27. This uneven implementation of lockdowns throughout Europe represents an interesting opportunity to assess the effect of Covid-19 on the European venture capital sector.

**Figure 27.** Regions under national lockdown during 2020.



*Source: Invest Europe, based on Oxford COVID-19 Government Response Tracker and CoronaNet database.*

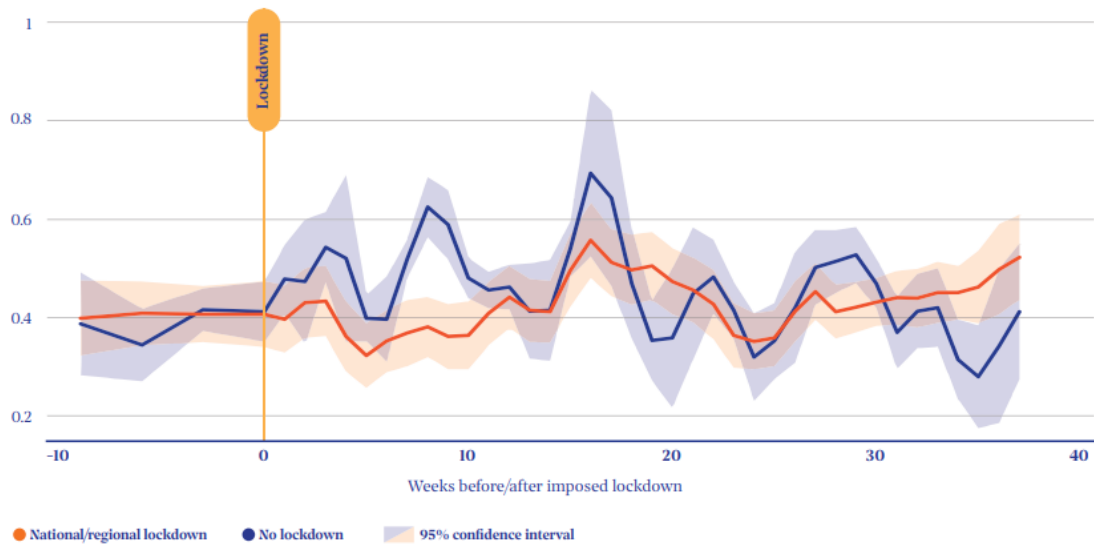
*Invest Europe* analyses the activity of investors in a particular week after the implementation of lockdown measures with the activity of investors in unrestricted areas over the same week. As shown in Fig. 28, prior to the implementation of lockdowns, both groups of investors seemed to be following a similar path of investment activity. Shortly

after the announcement, the two groups began to diverge, and the difference became statistically significant approximately two months later. In fact, the number of deals signed by VC firms in lockdown areas was 13% lower than the number of transactions done by investors in regions where mobility was not restricted. After the ninth post-lockdown week, the gap widens to approximately 20%, but it begins to narrow again after the tenth post-lockdown week, as displayed in Fig. 28.

The authors of the report provides three theories to explain the fact that significantly differences among the two subgroups are only visible seven to ten weeks after the introduction of lockdown measures. First, every VC firm is likely to be sitting on an extensive list of previously scrutinized VC deals throughout the year at any one point in time. Therefore, even when under lockdown, it's conceivable that such transactions might have been completed virtually. Once the pipeline has been depleted, however, finding new deal opportunities may have become particularly difficult, for example, as a result of the cancellation of many events and/or other gathering opportunities for the venture capital community throughout the year 2020. Second, it is possible that venture capital firms deliberately decided to take advantage of the "grace" time provided by the removal of the initial lockdown measures in order to reorganize themselves, modify, and adjust their procedures in order to better suit a hybrid virtual/physical work environment. It may be the case that such reorganization had a detrimental impact on activities in the near run. Third, it may be the case of "lockdown fatigue": the unpleasant experience of tight lockdowns may have served as an incentive for VC teams in impacted areas to take advantage of the "grace" period and take extra time off work, resulting in a temporary decrease in production.

More than two and a half months after the implementation of lockdowns, the change in activity of venture capital firms in restricted areas is statistically indistinguishable from the change in activity of VC firms in unrestricted regions. The recovery is likely partially explained by the progressive easing of restrictions in the lead-up to summer 2020. Second lockdowns occurred, on average, 33 weeks after the previous one was implemented. Nonetheless, they were not followed by a statistically significant decrease in activity in restricted areas.

**Figure 28.** Expected weekly number of investments (in log), by lockdown status.

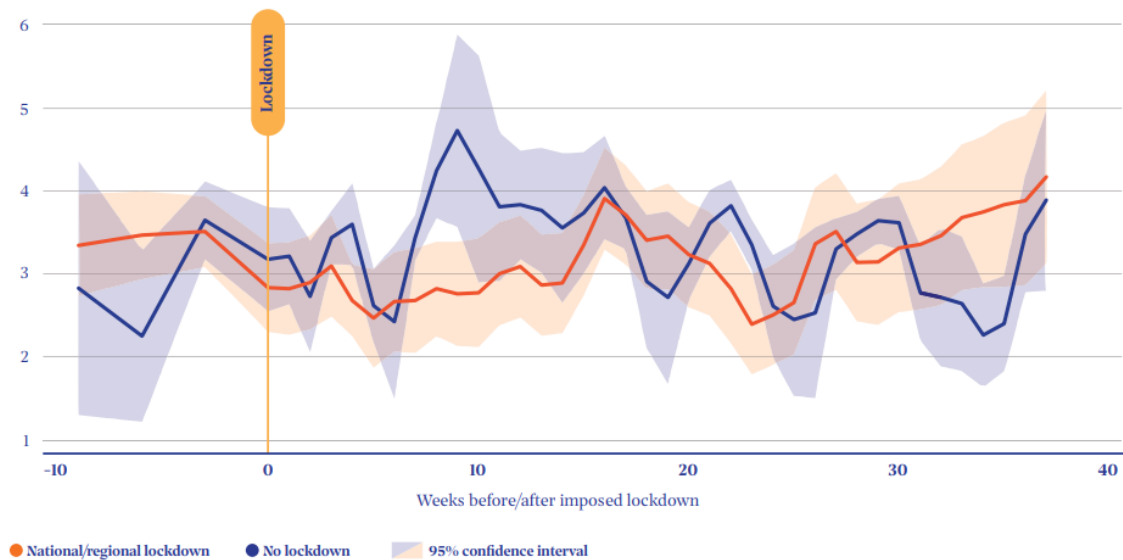


*Source: Invest Europe.*

Fig. 29 depicts the difference, in log, in venture capital investment volumes between the two subgroups before and after the implementation of lockdown measures. As in terms of number of deals, also investment volumes of the two categories were fairly comparable prior to the implementation of lockdowns. Following the announcement of limitations, average weekly investment volumes for venture capital firms impacted by the lockdowns remained largely constant, but started to increase in unrestricted areas after the announcement. The disparities between the two groups of areas became statistically significant only between the eighth and tenth weeks after the onset of lockdowns. During this time span, the gap between the two groups is significant: on average, 143%. Thereafter, the weekly difference soon disappears and does not return with the start of the second wave of lockdowns, supporting the theory that venture capital firms that were first restricted in their mobility were able to adapt to the new context.



**Figure 29.** Expected weekly investment volumes (in log), by lockdown status.



*Source: Invest Europe.*

### 3.2 THE IMPACT OF COVID-19 ON VC INVESTMENT PRACTICES

The previous chapter explored in quantitative terms to what extent the venture capital market was impacted by Covid-19 crisis, focusing mainly on number of deals and volumes of investment figures. This chapter instead presents a review of the existing literature regarding how venture capital firms have adapted their investment practices in the post Covid-19 scenario.

Bellavitis et al. (2021) studied the effects of the pandemic using a dataset of roughly 40,000 funding rounds taking place before and during Covid-19 pandemic in 130 countries. The authors investigate venture capitalists' behaviour by analysing the way these deal with uncertainty. For this reason the authors decide to test their hypothesis by focusing on five different types of uncertainty involved in venture capital investment decisions: (1) portfolio company uncertainty, (2) industry uncertainty, (3) foreign portfolio company uncertainty and (4) solo investment uncertainty.

**Portfolio company uncertainty.** This type of uncertainty refers to the decision to invest in a company depending on its stage: investment in seed-stage vs. late-stage. According to Bellavitis et al. (2021), as the number of Covid-19 cases grows, venture capitalists are less inclined to invest in seed-stage companies and are more willing to fund late-stage

companies. In particular, one standard deviation increase in Covid-19 cases lowers the likelihood of a deal being in seed stage by 16% and raises the chances of a deal being in late stage by 24%. Moreover, prominent investors decrease their seed-stage investments more dramatically than their less prominent counterparts when the number of COVID-19 cases rises, but both groups of investors increase late-stage investments at a comparable rate (Bellavitis et al, 2021).

**Industry uncertainty.** This type of uncertainty refers to the decision to invest in a company depending on its specific industry: biotech industry vs travel industry. Bellavitis et al. (2021) report that as the number of Covid-19 cases rises, venture capitalists become less interested in investing in travel-related businesses and are more inclined to back biotech companies. In particular, as the number of Covid-19 cases increases, the probability of a travel-related business obtaining financing decreases by 41% and it rises for biotech companies by 8%. Nevertheless, maybe counterintuitively, less prominent investors decrease their investments in the travel sector at a greater pace than more prominent investors. (Bellavitis et al, 2021).

**Foreign portfolio company uncertainty.** This type of uncertainty refers to the decision to invest in a foreign portfolio company. According to Bellavitis et al. (2021), venture capital investors are less inclined to invest in international companies as the number of Covid-19 cases grows. In fact, an increase of one standard deviation in Covid-19 cases raises the likelihood of the venture and the main investor being in the same nation by 43%. In particular, only the country in which the company is situated, not the country in which the lead investor is located, influence the likelihood of a national investment. Moreover, as the number of Covid-19 cases increases in one country, more prominent investors raise their national investments at a faster rate than less prominent venture capitalists (Bellavitis et al, 2021).

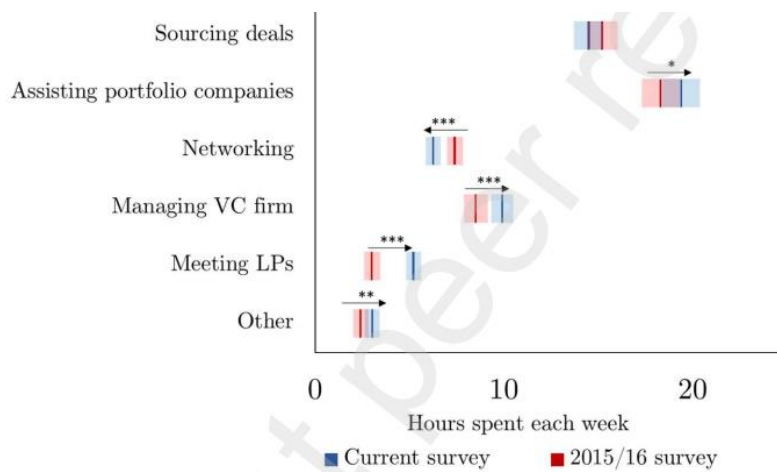
**Solo investment uncertainty.** This type of uncertainty refers to engaging in an investment with syndication partners. Bellavitis et al. (2021) report that as the number of Covid-19 instances grows, venture capitalists are less likely to make solo investment decisions and, on the other hand, are more likely to syndicate an investment since syndication can mitigate uncertainty. In particular, one standard deviation increase in Covid-19 cases reduces the likelihood that the investment will not be syndicated by 27%. Moreover, non-syndicated investments are being reduced at a comparable rate across all

levels of investor prominence (Bellavitis et al, 2021). The new context characterized by increased uncertainty offers possibilities for venture capital investors looking to work with new syndication partners. In fact, on one hand, this situation may be particularly appealing to young and inexperienced investors who may generally find it difficult to acquire syndication partners for co-investments and, on the other hand, investors who would normally seek solo investments or participate in syndication with experienced investors may be persuaded to explore joining investments with such new and inexperienced investors. (Sorenson and Stuart, 2001, Bellavitis et al, 2021).

Gompers et al. (2020) explored how Covid-19 epidemic has influenced investment choices of venture capitalist by conducting a survey among more than a thousand investors. The authors focused on the impact on (1) time use, (2) deal evaluation and (3) deal structure.

**Time use.** In terms of time use, from this research it seems that venture capitalists spent extra hours in the post Covid-19 era in managing the VC firm and interacting with LPs, as shown in Fig. 30. This finding suggests that there are some non-investment activities inside a VC company that must be handled by partners and that Covid-19 epidemic has increased the amount of time spent on such operations. Most businesses have had to adjust to remote work and restrictions imposed by the current epidemic, and venture capital firms are no exception.

**Figure 30.** Time use of venture capitalists in 2015/2016 vs in Covid-19 era.  
Average hours spent on each activity per week.



Source: Gompers et al. (2020).

**Deal evaluation.** The authors report that, among those investors that claimed to make fewer investments after Covid-19 outbreak, the difficulty in evaluating deals is the most frequent cause of their decreased investment activity. This is particularly true for late-stage investors (Gompers et al., 2020), despite intuition would suggest early-stage investors as the most affected ones, given the difficulty of meeting the management team of the potential ventures in person and the higher importance early-stage investors attribute to the analysis of the management team. Health investors are particularly not worried about meeting fewer quality entrepreneurs in the new context (Gompers et al., 2020), which is likely due to the fact that they generally put a lower value on the management team's quality than other venture capitalists. In terms of financial metrics to evaluate investments, venture capitalists' required IRRs have not risen from the level observed by previous research, which is somewhat unexpected. Moreover, 40% of VCs assess all investments using the same financial measure (Gompers et al., 2020). Among those VCs that instead vary their financial metrics when evaluating different investments, investment riskiness and time to liquidity are the most important factors, although adjustments on investment riskiness and time to liquidity have decreased the most since the last survey conducted by the authors in 2015/2016. Industry and financial market conditions are important as well, although to a lesser extent. Healthcare investors are more likely than IT investors to adjust the required financial measure for the investment's riskiness. These results are nearly identical to the GGKS findings (2020).

**Deal structure.** Given the increased uncertainty caused by the epidemic, 53% of venture capitalists surveyed by the authors reported that they expect contractual terms to be more investor-friendly. The amount of such change, however, is anticipated to be minor. Despite such expectations, according to the results provided by respondents to the last survey in 2020, the terms are more founder-friendly than they were in the last survey in 2015/2016. Perhaps this reflects the surge in VC activity and competitiveness over the last five years, which has resulted in a general rise in founder-friendly terms. The present Covid-19 epidemic does not seem to have prompted the terms to "revert" to their previous degree of investor friendliness (Gompers et al., 2020). Fig. 31 show the frequency with which contractual features are used by venture capitalists in 2015/16 vs post Covid-19 outbreak.

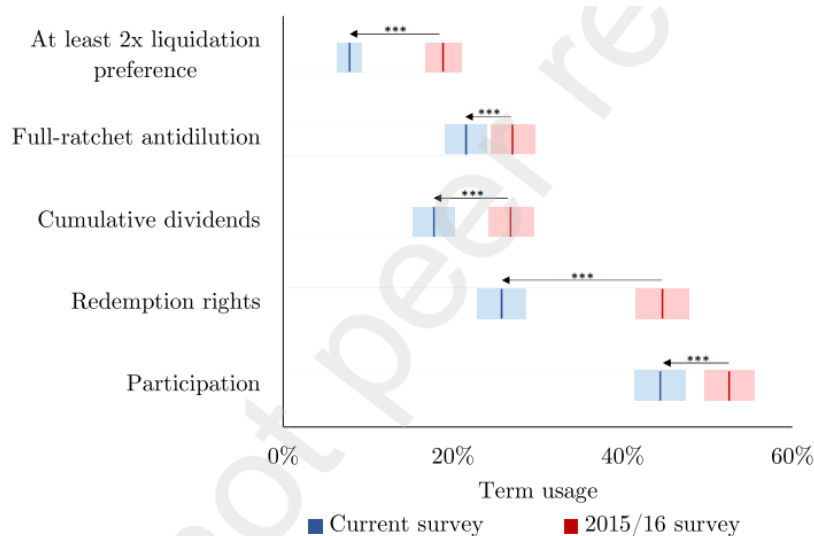
- *Participation rights:* in the post-Covid-19 era participation rights are utilized the most often, in approximately 45% of the deals. Participation was used in 53% of

deals in 2015/2016. Healthcare venture capitalists, as in the previous study, are considerably more likely to include participation when structuring a deal.

- *Redemption rights*: these terms are utilized in roughly 27% of the deals in the post Covid-19 scenario, with late-stage VCs using them more often. A big decrease is reported with respect to the pre Covid-19 scenario when respondents reported to use them in 45% of the deals.
- *Cumulative dividends*: these terms are utilized in roughly 17% of the deals in the post Covid-19 scenario, with late-stage VCs using them more often. A decrease is registered with respect to the pre Covid-19 scenario when respondents reported to use them in 27% of the deals.
- *Full-ratchet anti-dilution* and *senior liquidation preferences* are terms also used in a non-negligible number of deals by the venture capitalists who took part to the surveys, albeit at lower frequency than in the previous study.

People who replied to both surveys pre and post Covid-19 outbreak had substantial reductions in the frequency of *participation*, *redemption*, *full-ratchet antidilution* and high *liquidation preferences* (Gompers et al., 2020).

**Figure 31.** Frequency with which contractual features are used by venture capitalists: 2015/16 vs post Covid-19 outbreak.



Source: Gompers et al. (2020).

## **4. METHODOLOGY**

### **4.1 DESIGN**

In this chapter the research method applied in this study is presented. In order to assess the impact of Covid-19 on Venture Capital and its investment practices, a survey was conducted among professionals of the industry. Professionals were asked to assess the impact of the phenomenon in the form of survey's closed-ended questions which provided meaningful data for this quantitative research.

#### **4.1.1 Realization of the survey and its structure**

The survey was designed after carrying on a review of surveys in the existing literature focusing on the Venture Capital investment practices (Gompers, Gornall, Kaplan and Strebulaev, 2019, Da Rin and al., 2011, EIF, 2020). This study adds to a growing literature that examines the reactions of venture capitalists to the spread of Covid-19 pandemic. In addition to previous work in this field, this research aimed at spotting, for each practice, potential differences in behaviour between pre Covid-19 scenario and post Covid-19 scenario. In order to assess differences before and after the pandemic, respondents were asked, for most of the questions in the survey, to provide an answer referring to pre Covid-19 scenario and a separate answer for post Covid-19 scenario. This approach represents a limitation of this study, since it introduces the so-called “*backward response bias*”. In fact, by asking respondents to provide an answer that refers to a behaviour they used to have in the past may lead to inaccuracies, specially if at the same time they are asked to provide an answer which refers to the present context. For example, respondents may provide an incorrect answer because they do not properly remember about the past or because they may get confused comparing the past and the present context.

This work also contributes to the literature because it provides an exploration of the effects of Covid-19 on the venture capital industry, by focusing mainly on European funds.

The survey is composed of three separate sections and 60 questions in total: Section (A) about personal information of the respondent, Section (B) about the type of venture capital fund the respondent worked for and Section (C) focusing on investment practices. Section (A), which consists of 9 questions, aims at gathering personal information of the respondent. Data are treated in the strictest confidence and answers are only reported at the aggregate level for non-commercial research purposes with other individuals taking part in the survey, but the survey is not anonymous and full name and email is to be provided by the respondent. Information like gender, age and nationality are instead non mandatory for privacy purposes. In this section the respondent is also asked to self-identify himself or herself as either an Institutional venture capital investor or a Captive venture capital vehicle or none of these two. In this way the pool of respondents is subdivided in three separate categories. Since this study focuses on venture capital, the flow of the survey for respondents who self-declare as non-venture capitalists ceases at the end of section (A): the last question for these individuals investigates what kind of investors they are (private equity, fund of funds, angel investors, family office, etc).

Section (B) comprehends 12 questions which focus on the type and characteristics of the venture capital fund the respondent work for. The name of the fund is asked, along with vintage year, total committed capital, number of portfolio companies, and number of people working in the fund. For those individuals who self-reported as Captive venture capital investors, the survey asks to specify if the venture capital fund they work for is a Bank-controlled VC fund or a Governmental VC fund or a Corporate VC fund. In this study, though, only Institutional venture capitalists were taken into consideration when conducting the analysis.

Section (C) is the core of the survey and counts 39 technical questions about the impact of Covid-19 in the industry. The respondents are first asked to express in a high-level and qualitative way the impact of Covid-19 on venture capital investment practices. Then the survey continues deepening each particular investment practice: deal origination, deal screening, deal evaluation, deal structuring and post investment activities. Most of the questions are structured in pre Covid-19 scenario and post Covid-19 scenario, and individuals need to provide their answers for both scenarios.

At the end of the design phase, a draft version of the survey was circulated among a few professionals working in different VC funds based in Italy who completed the survey as trials and provided precious feedback.

#### **4.1.2 Survey distribution and data collection**

The survey was designed in Qualtrics and distributed to all respondents via e-mail. The mailing list derives from a Prequin database which comprehends more than 50.000 investors at a global scale. For each investor several information are available: among many others, full name, name of the venture capital fund they work for and professional e-mail. Albeit being aware that information might not be up-to-date in 100% of cases, the contact data for venture capitalists present in Prequin database provided the basis to build the mailing list for this research project and allowed to reach a broad number of professionals of the industry.

The survey was sent to the venture capitalists through several distribution waves occurred from May 2021 and August 2021. In order to increase responsiveness and encourage professionals to complete the survey, recipients were offered a free copy of the study and attendance to its on-line presentation event.

Final response rate is 5,38% and it is calculated at fund level. Starting from an initial number of 5406 funds present on Prequin database, the responses to the survey received were 291 responses, belonging to 291 different funds. In fact, in a few cases more than one answer of respondents working in the same VC fund or firm was received. In such cases, only one record was kept, the one provided by the most senior investor or the one presenting more consistent answers.

The length of the survey had an unavoidable negative effect on response rate: in fact, the present survey is particularly long - it counts 60 questions in total – and requires a lot of effort from participants who are asked to assign weights and grades of importance to many different items. The average completion rate of respondents is 21 minutes, which suggests the respondents who took part in the survey actually dedicated an adequate amount of time in completing it and put a substantial effort in providing reliable information.

When designing the survey of the present study some issues were encountered and were tried to be addressed. A first issue concerns the identification of respondents as Venture Capitalists. Indeed, it may have happened that in the mailing list derived from Prequin



database were included, among Venture capitalists, also some other types of investors like Private Equity investors or Funds of Funds. Therefore, the criterion adopted to filter VC investors consisted in directly asking respondents to self-identify themselves as either Venture Capitalists or as not Venture Capitalists. In addition to this, the survey also includes questions that aim to classify Venture Capitalists into Institutional VC investors or Captive VC investors and, in the case of Captive VCs, also the type of VC vehicle is asked to respondents.

Another issue concerns the fact that the final sample of respondents adopted in this study may not be representative of the whole industry. This results from the difficulty of reaching a broad number of professionals and obtaining from them completed surveys. In fact, the individuals in the mailing list have high seniority, which is optimal in terms of meaningfulness of data gathered but at the same does not help response rate. The Prequin database contains the contacts of investors at global scale, the sample for this study was then obtained by screening investors by investor type and focusing only on venture capitalists. Moreover, venture capitalists working in European funds were the main target of the distribution emails. Despite the total number of respondents in this study is not massive, response rates at European country level are in line with the proportion of the original population of the VC industry present in Prequin database. For this reason, it is reasonable to say that the sample does not provide a disproportionated and biased representation of the broader population of European VC industry.

In parallel to survey distribution and data collection, data management activities have been performed on the dataset. These activities include performing consistency checks on the information, which resulted in the exclusion of non-meaningful records which would have biased the analysis. Another type of correction was performed in analysing the data provided by respondents for their fund's total committed capital. In fact, in a very few cases respondents provided the amount in a different unit from the one requested. Therefore, some few corrections were applied in such sense, after double checking the same information on other sources. Moreover, since response rate was calculated at VC fund level, the analysis is also performed at fund level. Therefore, a criterion has been adopted for those very few cases where more than one individual working in the same fund answered the survey. In such cases, only one record per fund was kept, the one

belonging to the individual with the highest seniority and/or the one providing more accurate data.

## 4.2 SUMMARY STATISTICS

In this section the sample of the present study is introduced through summary statistics. Moreover, all the subsamples adopted when analysing data are also introduced.

Table 1 describes the total number of individuals who took part in the survey. The total number of responses received is 333, after excluding the records that did not pass the consistency check performed during data management activities. Only 73.3% of these total respondents self-reported as Institutional investors and were therefore included in the analysis. 7.2% are Captive VC investors: among them there are some Governmental VC fund investors (3.6 % of total initial respondents), Corporate VC fund investors (3%), and just a few Bank-controlled VC fund investors (0.6%). The remaining 20% of respondents declared not to be Venture Capitalists: specifically, they are mainly investors working in Private Equity funds (roughly 10 % of total initial respondents), Fund of Funds (2,4%), Family Offices (0,6%), and Individual Angel investors (1,2%).

**Table 1.** Total Responses.

Responses	N	%
Total responses	333	100.00
Institutional (Independent) VCs	244	73.27
Captive VCs	24	7.21
Bank-controlled Venture Capital fund	2	0.60
Governmental Venture Capital fund	12	3.60
Corporate Venture Capital fund	10	3.00
No VCs	65	19.52
Private Equity Fund	34	10.21
Fund Of Fund	8	2.40
Family Office	2	0.60
Individual Angel Investor	4	1.20
Other	12	3.60

As already mentioned, for the purpose of this study only the Institutional Venture Capitalist investors were kept into consideration. Therefore, it now follows a description of the considered sample, described in Table 2. The totality of Institutional Venture Capitalists is 277 investors. During the design phase, the survey was conceived to subdivide the totality of respondents into several subsamples according to different

criteria: size of the fund, type of VC, targeted stage, targeted geographic area and targeted industry.

### **(1) Fund size**

The respondents are subdivided into “Small” subsample and “Big” subsample, according to the size of the fund they work for. The criterion adopted for creating the subsamples was taking into consideration the median value of the total committed capital: all investors who presented a lower or equal amount of the total committed capital fell into the “Small” subsample, all those who presented a greater amount fell into the “Big” subsample. With this criterion, roughly 53% of investors in the sample constitute the “Small” subsample and roughly “47%” constitute the “Big” subsample.

### **(2) Type of VC**

The respondents are then subdivided according to their typology between “Traditional” funds and “Social” funds. The subdivision into the two subsamples results from the information provided by the respondents with reference to the question investigating if their fund deliberately invests in businesses that are expected to generate economic, environmental and social value. Roughly 70% of total respondents fell into the “Traditional” subsample and remaining 30% fell into “Social” subsample.

### **(3) Specialization on Stage**

The respondents were asked to report if their fund, in the pre Covid-19 scenario, used to target a particular stage for their investments. According to the data provided to this question, the respondents were then subdivided into “Early” and “Late” subsamples. “Early” subsample only accounts for those investors who reported to invest in either Seed or Early stages only (roughly 54% of total respondents), “Late” subsample only accounts for those investors who reported to invest in either Mid or Late stages only (roughly 26% of total respondents). Table 2 also presents how percentages increase if we take into consideration all respondents who declared to invest in at least Seed or Early stages (roughly 69% of total respondents) and all respondents who declared to invest in at least Mid or Late stages (roughly 41%).

#### **(4) Specialization on a Geographic area**

The respondents were asked to report if their fund, in the pre Covid-19 scenario, used to target a particular geographic area for their investments. According to the data provided to this question, the respondents were then subdivided into “Only Europe”, “Only North America” and “Only rest of the world” subsamples. “Only Europe” subsample accounts for those investors who reported to target only Europe as a geographic area for their investments (roughly 35% of total respondents), “Only North America” subsample accounts for those investors who reported to target only North America as a geographic area (roughly 19%), and “Only Rest of the world” includes all those investors who reported to target geographic areas which do not include Europe nor North America (roughly 17%). Table 2 also presents percentages of respondents who reported to target at least a specific geographic area. More than half of the respondents who took part in the survey stated they target Europe (roughly 51%), followed by the second-most targeted geographic area being North-America (roughly 39%). From this finding derives the choice to subdivide respondents in the before-mentioned geographic subsamples.

#### **(5) Specialization on an Industry**

The respondents were asked to report if their fund, in the pre Covid-19 scenario, used to target a particular industry for their investments. According to the data provided to this question, the respondents were then subdivided into “only IT” and “Only Healthcare” subsamples. “Only IT” subsample accounts for those investors who reported to target only the following industries: a) Telecommunications, IT and Cybersecurity, b) Internet and Mobile Services, c) Data, Software and services. Only 3.28% of total respondents falls into this subsample. “Only healthcare” subsample includes those investors who reported to target only the following industries: a) Healthcare, b) Biotechnology, c) Chemicals and Pharmaceuticals. Roughly 13% of respondents fall into this sample.

Given these very low percentages, all results displayed for these two subsamples will need to be carefully taken into consideration since, given their small population, they cannot faithfully represent the behaviour of respondents belonging to these categories. Table 2 also presents percentages of respondents who reported to target at least a specific industry. The most targeted ones are IT (45%), Healthcare (46%), Energy (17%) and Financial (9%).

**Table 2.** The sample: Institutional VCs.

Responses	N	%
Total Institutional VCs	244	100.00
Strata according to fund size	244	100.00
Small	130	53.28
Big	114	46.72
Type of VC	244	100.00
Social	72	29.51
Traditional	172	70.49
VCs that specialize on a stage	231	94.67
Seed and/or Early stage	168	68.85
Only Seed and/or Early stage only	132	54.10
Mid and/or Late stage	99	40.57
Only Mid and/or Late stage only	63	25.82
VCs that specialize on a geographic area	234	95.90
Europe	125	51.23
Only Europe	86	35.25
North America	96	39.34
Only North America	47	19.26
Central and South America	18	7.38
Asia	48	19.67
Africa	14	5.74
Oceania	3	1.23
Not Europe and not North-America	48	19.67
VCs that specialize on an industry	194	79.51
IT	111	45.49
Only IT	8	3.28
Healthcare	113	46.31
Only Healthcare	32	13.11
Energy and Environment	48	19.67
Financial	23	9.43

The samples just presented have been adopted throughout all the data analysis. Therefore, each variable will be analysed at both overall level and then at subsamples level. In order to spot meaningful behavioural differences between different typology of investors, the subsamples created are complementary between them for each criterion and therefore, do not contain the same individuals.

Respondents were not required to provide some personal information for privacy purposes. Therefore, despite not all respondents provided such data, the average age of respondents who provided such information in the overall sample is 49.3, like reported in Table 3.

**Table 3.** Age of respondents in the sample.

	N	Mean	Std. Dev.	Min	Max
Age	187	49.358	11.628	16	76

Among the totality of respondents who provided gender information, roughly 80% are male investors, whereas roughly 17% are females, as presented in Table 4.

**Table 4.** Gender of respondents in the sample.

	N	%
Male	193	79.10
Female	41	16.80
Prefer not to say (Blanks)	1 9	0.41 3.69
Total	244	100.00

In terms of nationalities represented in the sample, roughly 23% of respondents who provided such information are American. The nationalities that follows are German (7.3%), Indian (6.15%), Italian (6.15%), French (5.33%) and British (4.10%).

In order to have a clear understanding of the global coverage of the survey, information about the location was instead mandatory for respondents. Table 5 displays the geographic location of the individuals who took part in the survey. In line with information about the nationality, almost 30% of respondents are based in the United States. In descending order for number of people based in such locations, the countries that follow are France (6.56%), India (5,74%), United Kingdom (4,92%), and Germany (4,51%). Overall, Europe is the geographic area that is more represented in the sample.

**Table 5.** Location of respondents in the sample.

Location	N	%
United States	67	27.46
France	16	6.56
India	14	5.74
United Kingdom	12	4.92
Germany	11	4.51
Brazil	9	3.69
Switzerland	9	3.69
Belgium	7	2.87
Canada	7	2.87
Netherlands	7	2.87
Spain	7	2.87
Italy	6	2.46
Denmark	5	2.05
Singapore	5	2.05
Kenya	4	1.64
Mexico	4	1.64
Poland	4	1.64
South Africa	4	1.64
Australia	3	1.23
Ireland	3	1.23
Israel	3	1.23
Sweden	3	1.23
Austria	2	0.82
China	2	0.82
Croatia	2	0.82
Finland	2	0.82
Greece	2	0.82
Norway	2	0.82
Portugal	2	0.82
Taiwan	2	0.82
Estonia	1	0.41
Ethiopia	1	0.41
Hungary	1	0.41
Lithuania	1	0.41
Malaysia	1	0.41
Monaco	1	0.41
Nepal	1	0.41
Philippines	1	0.41
Romania	1	0.41
Slovakia	1	0.41
Sri Lanka	1	0.41
Syria	1	0.41
Thailand	1	0.41
Turkey	1	0.41
Uganda	1	0.41
Vietnam	1	0.41
Hong Kong	1	0.41
South Korea	1	0.41
Total	244	100.00

Another interesting descriptive statistic of the sample is the Job title of respondents. Table 6 reports the frequency in terms of number of respondents (first line) and % of respondents (second line) for each job title. More of 40% of respondents are Managing Partners, roughly 18% are General Partners, almost 11% are Partners or Venture Partners and roughly 4% are Senior Partners. This result show that the vast majority of the respondents who took part in the survey are active decision makers. Frequency and percentages are also presented at subsamples level.

**Table 6.** Job Title of respondents in the sample.

Job Title	All	Fund size		Type of VC		Stage		Geography			Industry	
		Small	Big	Soc.	Trad.	Early	Late	Eur.	N.A	Rest	IT	H
Managing Partner	101	57	44	28	73	56	25	32	27	19	3	21
	41.39	43.85	38.60	38.89	42.44	42.42	39.68	37.21	57.45	39.58	37.50	65.63
General Partner	43	22	21	11	32	25	12	19	7	8	2	2
	17.62	16.92	18.42	15.28	18.60	18.94	19.05	22.09	14.89	16.67	25.00	6.25
Senior Partner	10	8	2	2	8	4	2	2	2	2	0	2
	4.10	6.15	1.75	2.78	4.65	3.03	3.17	2.33	4.26	4.17	0.00	6.25
Partner/Venture Partner	26	9	17	7	19	14	7	10	2	7	1	2
	10.66	6.92	14.91	9.72	11.05	10.61	11.11	11.63	4.26	14.58	12.50	6.25
Principal/Associate	26	14	12	11	15	14	4	6	2	9	0	2
	10.66	10.77	10.53	15.28	8.72	10.61	6.35	6.98	4.26	18.75	0.00	6.25
Other	38	20	18	13	25	19	13	17	7	3	2	3
	15.57	15.38	15.79	18.06	14.53	14.39	20.63	19.77	14.89	6.25	25.00	9.38
Total	244	130	114	72	172	132	63	86	47	48	8	32
	100	100	100	100	100	100	100	100	100	100	100	100

(1<sup>st</sup> row: N, 2<sup>nd</sup> row: %)

Table 7 presents some key descriptive statistics of the funds the respondents work for.

Average vintage year of the funds in the sample is 2016.

Average Total Committed Capital is roughly 240 M€. Some differences are spotted across subsamples: a huge discrepancy obviously is reported between Small (46.8 M€) and Big (460.2 M€) subsamples. Moreover, there is meaningful variance across Early (124.4 M€) and Late (482.6 M€) subsamples. This finds explanation in the fact that typically Late stage investors invest bigger amounts because of the less risk they are exposed to with comparison to Early stage investors. Lastly, another remarkable difference is reported between Europe (245.3 M€) and North America (183.8 M€) subsamples in comparison to Rest of the world (96 M€) subsamples. This suggests that there is a greater concentration of capital in the VC industry in the European and North American geographic areas with respect to the Rest of the world.

Average number of portfolio companies is 40.6 at sample level. The only remarkable differences are spotted between Early Stage (46.7 companies) and Late Stage (14.9) subsamples: this finds explanation in the fact that Late Stage investors usually invest a greater amount of capital in a less number of companies, whereas Early Stage investor



typically invest less amount of capital in many different companies in order to diversify their portfolio and off-set the risk.

Average number of people in the fund is 11.4: no significant variance is registered at subsamples level.

**Table 7.** Descriptive statistics.

Variable	All	Fund size		Type of VC		Stage		Geography			Industry	
		Small	Big	Soc.	Trad.	Early	Late	Eur.	N.A	Rest	IT	H
Vintage Year	2016	2016	2016	2017	2016	2016	2016	2017	2016	2016	2018	2017
	4.5	4.2	4.7	3.4	4.8	4.1	5.2	4.1	4.2	3.4	2.5	4.6
Total Committed Capital (M€)	239.9	46.8	460.2	169.7	269.3	124.4	482.6	245.3	183.8	96	217.5	200.3
	542.3	28.4	734.6	366.4	599.3	168.3	961.1	506.8	204	112.1	154.6	218.2
# of Portfolio Companies	40.6	37.9	43.5	38.3	41.5	46.7	14.9	31.2	45.4	16.8	17.1	11.6
	184.9	227.6	120.2	124.6	205.3	226.5	14.8	110.4	114.5	15.8	15.1	6.9
N. of People in the fund	11.4	9.9	13	9.37	12.25	10.9	14.3	10.6	6.6	10.1	12.6	9
	21.4	26.7	12.6	8.26	24.8	26.8	15.2	13.5	5.3	8.4	6.9	8
Total Respondents	244	130	114	72	172	132	63	86	47	48	8	32

(1<sup>st</sup> row: mean, 2<sup>nd</sup> row: S.D.)

## 5. PRESENTATION OF RESULTS

### 5.1 Overview

In this chapter the results of the survey are illustrated. First, the general impact of Covid-19 on venture capital investment practices is outlined, then the effect on the following phases of the investment practices is explored more in depth: deal origination, deal selection, deal structuring and post-investment activities.

In first instance, this study aims at investigating to what extent did Covid-19 have an impact on VCs' investments practices. To this purpose, respondents were first asked to assess in qualitative terms the impact of Covid-19 on venture capital investment practices. As shown in Table 8, more than half of the total respondents (54.51%) reported that, in broad terms, Covid-19 did not affect their practices. Roughly 41% of them stated the effect was moderate, and only 4% declared that their practices were significantly impacted. The only remarkable variance across subsamples can be seen in the Geography

subsamples: on one hand “Europe” and “North America” subsamples have the same behaviour as the overall sample of respondents, presenting a bigger portion of investors claiming there was no impact in their investment practices and a little less than 40% of investors stating the impact was moderate. On the other hand, in the “Rest of the world” subsample these proportions are inverted with half of the investors reporting that the impact was moderate and around 40% stating there was no impact.

**Table 8.** Overall impact on investment strategies.

Impact	All	Fund size		Type of VC		Stage		Geography			Industry	
		Small	Big	Soc.	Trad.	Early	Late	Eur.	N.A	Rest	IT	H
Not at all	133	69	64	36	97	71	33	52	27	19	6	22
	54.51	53.08	56.14	50.00	56.40	53.79	52.38	60.47	57.45	39.58	75.00	68.75
Moderately	100	52	48	30	70	52	29	31	18	24	2	9
	40.98	40.00	42.11	41.67	40.70	39.39	46.03	36.05	38.30	50.00	25.00	28.13
Significantly	10	8	2	6	4	8	1	2	2	5	0	0
	4.10	6.15	1.75	8.33	2.33	6.06	1.59	2.33	4.26	10.42	0.00	0.00
(Blank)	1	1	0	0	1	1	0	1	0	0	0	1
	0.41	0.77	0.00	0.00	0.58	0.76	0.00	1.16	0.00	0.00	0.00	3.13
Total	244	130	114	72	172	132	63	86	47	48	8	32
	100	100	100	100	100	100	100	100	100	100	100	100

(1<sup>st</sup> row: N, 2<sup>nd</sup> row: %)

It goes without saying that time is a good KPI to assess the impact of a certain phenomenon under examination. For this reason, one of the research questions of this paper aims at evaluating if Covid-19 increased the overall time required to complete a deal. As shown in table 9, almost half of the respondents (47.13%) in the sample stated that they experienced no impact on the time required to close deals, roughly 32% of them reported that time needed increased and roughly 21% declared the overall time decreased. No particular cross-variance is registered at subsample level: the most remarkable variance is to be found between Social and Traditional investors. Almost half of respondents in the “Social” subsample reported that time increased and roughly 36% of them instead stated there was no significant effect on time. On the contrary, in the “Traditional” sample 51% of investors claimed Covid-19 did not impact the time needed to close deals and 25% stated the time increased. Percentages of respondents stating time decreased amount at 25.38% in the former sample and 23.26% in the latter.

**Table 9.** Impact on time.

Impact	All	Fund size		Type of VC		Stage		Geography			Industry	
		Small	Big	Soc.	Trad.	Early	Late	Eur.	N.A	Rest	IT	H
Increased	78	43	35	35	43	36	26	24	11	26	3	11
	31.97	33.08	30.70	48.61	25.00	27.27	41.27	27.91	23.40	54.17	37.50	34.38
Decreased	51	20	31	11	40	29	13	17	11	7	1	5
	20.90	15.38	27.19	15.28	23.26	21.97	20.63	19.77	23.40	14.58	12.50	15.63
No change	115	67	48	26	89	67	24	45	25	15	4	16
	47.13	51.54	42.11	36.11	51.74	50.76	38.10	52.33	53.19	31.25	50.00	50.00
Total	244	130	114	72	172	132	63	86	47	48	8	32
	100	100	100	100	100	100	100	100	100	100	100	100

(1<sup>st</sup> row: N, 2<sup>nd</sup> row: %)

Venture Capital is an industry that has traditionally relied on networks and face-to-face interactions between investors and entrepreneurs. In the post Covid-19 pandemic scenario, as a consequence of travel bans and restrictions, it is expected that Venture capitalists have favoured domestic investments to cross-border ones. For this reason, one of the research questions of this study is to investigate if Covid-19 contributed to reduce cross-border investments in favour of a more domestic focus. In order to evaluate the impact of the crisis, respondents were first asked if, in the pre Covid-19 scenario, they had a domestic or cross-border focus or both. As shown in table 10, roughly 41% of total respondents claimed to have a domestic focus, 23% stated they had a cross-border focus and 36% claimed they used to have both domestic and cross-border investments.

**Table 10.** Pre Covid-19: Cross border or Domestic Focus.

Investment focus	All	Fund size		Type of VC		Stage		Geography			Industry	
		Small	Big	Soc.	Trad.	Early	Late	Eur.	N.A	Rest	IT	H
Cross-border	56	21	35	16	40	30	16	22	4	5	1	7
	22.95	16.15	30.70	22.22	23.26	22.73	25.40	25.58	8.51	10.42	12.50	21.88
Domestic	100	66	34	33	67	58	28	33	36	28	2	16
	40.98	50.77	29.82	45.83	38.95	43.94	44.44	38.37	76.60	58.33	25.00	50.00
Both	88	43	45	23	65	44	19	31	7	15	5	9
	36.07	33.08	39.47	31.94	37.79	33.33	30.16	36.05	14.89	31.25	62.50	28.13
Total	244	130	114	72	172	132	63	86	47	48	8	32
	100	100	100	100	100	100	100	100	100	100	100	100

(1<sup>st</sup> row: N, 2<sup>nd</sup> row: %)

Respondents who answered they used to have, in the pre Covid-19 scenario, a cross-border focus and those who said to do both domestic and cross-border investments, were then asked to assess if Covid-19 reduced cross-border investments in favour of more domestic ones. The results are displayed in Table 11. The vast majority of investors (roughly 83%) affirmed Covid-19 actually contributed to reduce their cross-border investments and focus on more domestic ones, whereas in only 13% of cases the crisis did not result in any shift of investment focus. From an analysis at subsample level it is also clear that investors of different types and with different focuses reacted in the same way to face Covid-19 pandemic, favouring domestic investments over cross-border ones.

**Table 11.** Post Covid-19: Cross border or Domestic Focus.

Did Covid-19 reduce cross-border investments in favour of more domestic ones?

Answer	All	Fund size		Type of VC		Stage		Geography			Industry	
		Small	Big	Soc.	Trad.	Early	Late	Eur.	N.A	Rest	IT	H
Yes	119	53	66	27	92	62	29	46	6	14	6	13
	82.64	82.81	82.50	69.23	87.62	83.78	82.86	86.79	54.55	70.00	100.0	81.25
No	19	9	10	8	11	9	5	5	5	3	0	3
	13.19	14.06	12.50	20.51	10.48	12.16	14.29	9.43	45.45	15.00	0.00	18.75
Not applicable	6	2	4	4	2	3	1	2	0	3	0	0
	4.17	3.13	5.00	10.26	1.90	4.05	2.86	3.77	0.00	15.00	0.00	0.00
Total	144	64	80	39	105	74	35	53	11	20	6	16
	100	100	100	100	100	100	100	100	100	100	100	100

(1<sup>st</sup> row: N, 2<sup>nd</sup> row: %)

The core objective of this paper is to analyse to what extent Covid-19 affected day-to-day activities of venture capitalists. Before exploring in depth in what terms investors had to adapt their work in the post Covid-19 context, the research investigates which specific phase of the deal funnel was the mostly impacted. Respondents were asked to express to what extent the overall effort required from them increased, remained unchanged or decreased, for each investment phase. In this specific case the effort is a KPI that encloses a lot of variables like, among others, complexity of tasks and time required. The following tables 12-17 present the outcomes of the impact on the effort required, reporting the number of investors and the corresponding percentage which selected each specific degree of impact in the scale provided (significantly decreased, moderately decreased, no change, moderately increased and significantly increased). From these findings it is reasonable to say that overall Covid-19 did not have a significant worsening or improving impact on Venture Capital investment practices, contrary to what could have been

expected. In fact, in all phases presented, almost always half of respondents claimed that they experienced no change. The rest of the sample is almost normally distributed around the peak option “No change”, ranging from “Significantly decreased” to “Significantly increased”. In some phases an even larger portion of respondents reported no impact, specifically deal sourcing (58%), deal structuring (69%) and exit (58%). In the remaining phases a little less than half of the sample reported no impact, showing a bigger portion of respondents has been affected by Covid-19 crisis: deal origination (45%), deal evaluation (40%) and post investment activities (47%). Venture capitalists seem to encounter more difficulty in evaluating deals, with roughly 33% of the investors in the sample claiming that their effort required for deal evaluation moderately increased in the post Covid-19 scenario and 11% affirming it significantly increased. The results for post investment activities also report a modest overall impact, with roughly 33% of investors stating the effort moderately increased and 12% asserting it significantly increased.

**Table 12.** Impact on Deal Origination.

Impact	All	Fund size		Type of VC		Stage		Geography			Industry	
		Small	Big	Soc.	Trad.	Early	Late	Eur.	N.A	Rest	IT	H
Significantly decreased	9	4	5	3	6	3	5	3	2	2	0	2
	3.69	3.08	4.39	4.17	3.49	2.27	7.94	3.49	4.26	4.17	0.00	6.25
Moderately decreased	45	23	22	8	37	26	9	18	9	7	1	6
	18.44	17.69	19.30	11.11	21.51	19.70	14.29	20.93	19.15	14.58	12.50	18.75
No change	109	58	51	34	75	61	27	43	21	18	3	14
	44.67	44.62	44.74	47.22	43.60	46.21	42.86	50.00	44.68	37.50	37.50	43.75
Moderately increased	61	35	26	21	40	30	19	18	12	16	4	8
	25.00	26.92	22.81	29.17	23.26	22.73	30.16	20.93	25.53	33.33	50.00	25.00
Significantly increased	20	10	10	6	14	12	3	4	3	5	0	2
	8.20	7.69	8.77	8.33	8.14	9.09	4.76	4.65	6.38	10.42	0.00	6.25
Total	244	130	114	72	172	132	63	86	47	48	8	32
	100	100	100	100	100	100	100	100	100	100	100	100

(1<sup>st</sup> row: N, 2<sup>nd</sup> row: %)

**Table 13. Impact on Deal Screening.**

Impact	All	Fund size		Type of VC		Stage		Geography			Industry	
		Small	Big	Soc.	Trad.	Early	Late	Eur.	N.A	Rest	IT	H
Significantly decreased	6	4	2	2	4	4	1	1	2	2	0	0
	2.46	3.08	1.75	2.78	2.33	3.03	1.59	1.16	4.26	4.17	0.00	0.00
Moderately decreased	29	9	20	8	21	15	9	11	6	2	0	0
	11.89	6.92	17.54	11.11	12.21	11.36	14.29	12.79	12.77	4.17	0.00	0.00
No change	142	81	61	36	106	79	34	55	28	24	5	24
	58.20	62.31	53.51	50.00	61.63	59.85	53.97	63.95	59.57	50.00	62.50	75.00
Moderately increased	51	24	27	20	31	24	16	16	8	14	3	6
	20.90	18.46	23.68	27.78	18.02	18.18	25.40	18.60	17.02	29.17	37.50	18.75
Significantly increased	16	12	4	6	10	10	3	3	3	6	0	2
	6.56	9.23	3.51	8.33	5.81	7.58	4.76	3.49	6.38	12.50	0.00	6.25
Total	244	130	114	72	172	132	63	86	47	48	8	32
	100	100	100	100	100	100	100	100	100	100	100	100

(1<sup>st</sup> row: N, 2<sup>nd</sup> row: %)**Table 14. Impact on Deal Evaluation.**

Impact	All	Fund size		Type of VC		Stage		Geography			Industry	
		Small	Big	Soc.	Trad.	Early	Late	Eur.	N.A	Rest	IT	H
Significantly decreased	7	3	4	3	4	3	3	2	1	2	0	0
	2.87	2.31	3.51	4.17	2.33	2.27	4.76	2.33	2.13	4.17	0.00	0.00
Moderately decreased	33	18	15	10	23	24	4	11	8	5	1	2
	13.52	13.85	13.16	13.89	13.37	18.18	6.35	12.79	17.02	10.42	12.50	6.25
No change	98	59	39	22	76	55	20	43	20	15	4	20
	40.16	45.38	34.21	30.56	44.19	41.67	31.75	50.00	42.55	31.25	50.00	62.50
Moderately increased	80	37	43	28	52	41	27	26	13	16	2	7
	32.79	28.46	37.72	38.89	30.23	31.06	42.86	30.23	27.66	33.33	25.00	21.88
Significantly increased	26	13	13	9	17	9	9	4	5	10	1	3
	10.66	10.00	11.40	12.50	9.88	6.82	14.29	4.65	10.64	20.83	12.50	9.38
Total	244	130	114	72	172	132	63	86	47	48	8	32
	100	100	100	100	100	100	100	100	100	100	100	100

(1<sup>st</sup> row: N, 2<sup>nd</sup> row: %)

**Table 15. Impact on Deal Structuring.**

Impact	All	Fund size		Type of VC		Stage		Geography			Industry	
		Small	Big	Soc.	Trad.	Early	Late	Eur.	N.A	Rest	IT	H
Significantly decreased	3	2	1	2	1	1	1	1	0	2	0	0
	1.23	1.54	0.88	2.78	0.58	0.76	1.59	1.16	0.00	4.17	0.00	0.00
Moderately decreased	17	9	8	3	14	10	3	6	4	1	1	1
	6.97	6.92	7.02	4.17	8.14	7.58	4.76	6.98	8.51	2.08	12.50	3.13
No change	169	90	79	44	125	93	44	62	32	33	6	22
	69.26	69.23	69.30	61.11	72.67	70.45	69.84	72.09	68.09	68.75	75.00	68.75
Moderately increased	44	21	23	19	25	23	14	14	10	10	1	8
	18.03	16.15	20.18	26.39	14.53	17.42	22.22	16.28	21.28	20.83	12.50	25.00
Significantly increased	11	8	3	4	7	5	1	3	1	2	0	1
	4.51	6.15	2.63	5.56	4.07	3.79	1.59	3.49	2.13	4.17	0.00	3.13
Total	244	130	114	72	172	132	63	86	47	48	8	32
	100	100	100	100	100	100	100	100	100	100	100	100

(1<sup>st</sup> row: N, 2<sup>nd</sup> row: %)**Table 16. Impact on Post Investment activities.**

Impact	All	Fund size		Type of VC		Stage		Geography			Industry	
		Small	Big	Soc.	Trad.	Early	Late	Eur.	N.A	Rest	IT	H
Significantly decreased	3	2	1	1	2	2	0	1	0	2	0	1
	1.23	1.54	0.88	1.39	1.16	1.52	0.00	1.16	0.00	4.17	0.00	3.13
Moderately decreased	15	7	8	6	9	9	2	6	1	0	0	2
	6.15	5.38	7.02	8.33	5.23	6.82	3.17	6.98	2.13	0.00	0.00	6.25
No change	115	64	51	27	88	66	26	47	24	15	2	21
	47.13	49.23	44.74	37.50	51.16	50.00	41.27	54.65	51.06	31.25	25.00	65.63
Moderately increased	81	41	40	26	55	43	22	28	15	24	5	5
	33.20	31.54	35.09	36.11	31.98	32.58	34.92	32.56	31.91	50.00	62.50	15.63
Significantly increased	30	16	14	12	18	12	13	4	7	7	1	3
	12.30	12.31	12.28	16.67	10.47	9.09	20.63	4.65	14.89	14.58	12.50	9.38
Total	244	130	114	72	172	132	63	86	47	48	8	32
	100	100	100	100	100	100	100	100	100	100	100	100

(1<sup>st</sup> row: N, 2<sup>nd</sup> row: %)

**Table 17. Impact on Exit.**

Impact	All	Fund size		Type of VC		Stage		Geography			Industry	
		Small	Big	Soc.	Trad.	Early	Late	Eur.	N.A	Rest	IT	H
Significantly decreased	4	3	1	2	2	1	1	1	0	2	0	0
	1.64	2.31	0.88	2.78	1.16	0.76	1.59	1.16	0.00	4.17	0.00	0.00
Moderately decreased	23	11	12	5	18	9	4	7	5	2	0	5
	9.43	8.46	10.53	6.94	10.47	6.82	6.35	8.14	10.64	4.17	0.00	15.63
No change	141	74	67	36	105	80	35	52	31	22	5	18
	57.79	56.92	58.77	50.00	61.05	60.61	55.56	60.47	65.96	45.83	62.50	56.25
Moderately increased	58	32	26	21	37	33	18	19	11	15	3	6
	23.77	24.62	22.81	29.17	21.51	25.00	28.57	22.09	23.40	31.25	37.50	18.75
Significantly increased	18	10	8	8	10	9	5	7	0	7	0	3
	7.38	7.69	7.02	11.11	5.81	6.82	7.94	8.14	0.00	14.58	0.00	9.38
Total	244	130	114	72	172	132	63	86	47	48	8	32
	100	100	100	100	100	100	100	100	100	100	100	100

(1<sup>st</sup> row: N, 2<sup>nd</sup> row: %)

In the next paragraphs the analysis furtherly investigates the extent and nature of such impact on the following investment phases: deal origination, deal sourcing, deal structuring and post investment activities.

## 5.2 Deal Origination

The results of the qualitative investigation about how much Covid-19 pandemic impacted deal origination phase, presented in the previous paragraph, show that slightly less than half of the investors in the sample (44%) did not report any change in the effort required for scouting investment opportunities. The percentage of respondents that claimed the effort moderately increased is roughly 25% and the one claiming it significantly increased is about 8%. Among those 8% who reported a significant increase, there is some variance at subsample level: early-stage investors seem to be more impacted than late-stage investors, healthcare investors more than IT investors and “Rest of the world” sample more than “Europe” sample. On the other hand, there is a small portion of investors who stated that the effort was instead significantly decreased (4%) and moderately decreased (18%).

The study aims at understanding in more detail if, and how, Covid-19 affected the way VCs source investments. To this purpose respondents were asked to assign a degree of importance ranging from 1 to 5, where 1 corresponds to low importance and 5 to high



importance, to ten different types of sources that the literature reports as being the typical sources of investments for venture capitalists. Respondents were asked to assign a degree of importance to each item for both scenarios, pre Covid-19 and post Covid-19. Table 18 shows the average degree of importance of each item resulting from the sample, pre Covid-19 and post Covid-19. Comparing the results referring to the pre Covid-19 scenario and the those of the post Covid-19 scenario, there is no significant change that can be appreciated in the average degrees of importance of each item, both at overall sample level and at subsample level.

*The management team of the potential companies* is the source that the investors in the sample consider as the most important for scouting investment opportunities, with an average importance of 4.25 out of 5, at overall sample level, in both scenarios. The management team seems to be slightly less important to the venture capitalists investing in Europe with respect to those investing in North America and in the rest of the world.

Another influential source is *proactive self-generation by the venture capital firm* (3.77 in pre Covid-19 scenario), for which a little cross-sectional variance is registered between “Early” and “Late” investors. The latter attribute a greater importance to proactive self-generation (4.30) than what the former do (3.57). A small increase of 0.1 in the average amount is registered in the post Covid-19 scenario with respect to the pre Covid-19 scenario.

*Venture capital professional network* also was reported to be as one very meaningful source for the investors in the sample, scoring an average degree of importance of 3.48 in the pre Covid-19 scenario. In the post Covid-19 scenario Social investors and “Rest of the world” sample reported a bigger increase in the average importance amount with respect to Traditional investor and “Europe”, “North America” samples, respectively.

The sources that venture capitalists used to take into consideration the least before the pandemic were *governmental body* (1.75), *controlling corporation or controlling bank* (1.89) and *limited partners* (2.21). Same results are reported for the post Covid-19 scenario.

No significant change can be appreciated in the average degrees of importance of all sources of investments, both at overall sample level and at subsample level. Therefore, Covid-19 did not change the way the venture capitalists in the sample source investments, since no particular increase or decrease of importance for any type of source is registered.

**Table 18.** Covid-19 impact on Deal Origination.

Sources	All	Fund size		Type of VC		Stage		Geography			Industry	
		Small	Big	Soc.	Trad.	Early	Late	Eur.	N.A	Rest	IT	H
<b>Pre Covid-19</b>												
Management	4.25	4.22	4.23	4.39	4.15	4.26	4.15	3.94	4.5	4.3	4.37	4.13
	0.98	0.95	1.03	0.86	1.03	0.98	1.13	1.17	0.62	0.94	1.06	0.86
Limited Partners	2.21	2.37	2.02	2.54	2.06	2.38	2	2.0	2.16	2.31	2.14	1.91
	1.3	1.27	1.32	1.34	1.26	1.32	1.35	1.29	1.27	1.26	1.22	1.16
Other VC firms or angels	3.13	3.03	3.24	3.03	3.17	3.13	2.78	3.11	3.14	2.92	3.37	3.36
	1.17	1.14	1.20	1.14	1.19	1.13	1.11	1.07	1.32	1.09	1.06	1.16
Accelerators / Incubators	2.77	3.02	2.45	2.87	2.72	3.08	1.89	2.83	2.56	2.87	2.25	2.93
	1.33	1.29	1.31	1.38	1.31	1.32	1.00	1.26	1.48	1.39	1.03	1.19
Portfolio Companies	2.64	2.51	2.76	2.70	2.61	2.59	2.68	2.32	2.69	2.95	2.12	2.28
	1.29	1.31	1.25	1.30	1.29	1.23	1.35	1.18	1.35	1.34	1.12	1.45
Proactive self-generation	3.77	3.69	3.86	3.78	3.76	3.57	4.30	3.73	3.86	3.97	4.12	3.9
	1.21	1.26	1.14	1.25	1.19	1.22	1.02	1.10	1.26	1.24	0.99	1.06
Quantitative sourcing	2.24	2.12	2.40	1.95	2.36	2.17	2.61	2.50	1.60	2.08	2	2.35
	1.19	1.17	1.22	1.21	1.17	1.22	1.30	1.18	0.94	1.32	1.22	1.08
VC professional network	3.48	3.45	3.53	3.41	3.51	3.41	3.48	3.39	3.32	3.38	3	3.86
	1.19	1.19	1.21	1.15	1.21	1.22	1.23	1.23	1.43	1.08	1.77	1.00
Controlling corporation/bank	1.89	1.79	1.98	2.24	1.73	1.62	2.11	1.61	1.45	2.5	1	1.73
	1.09	1.07	1.13	1.30	0.96	0.84	1.36	0.76	0.68	1.46	0.0	1.10
Governmental body	1.75	1.81	1.68	2.08	1.52	1.76	1.92	1.68	1.45	2.5	1.25	1.78
	0.90	0.91	0.91	0.99	0.77	0.92	1.03	0.78	0.93	0.98	0.50	0.80
Total responses	244	130	114	72	172	132	63	86	47	48	8	32
<b>Post Covid-19</b>												
Management	4.25	4.28	4.22	4.43	4.17	4.28	4.18	4.01	4.45	4.37	4.37	4.16
	1.00	0.94	1.06	0.85	1.05	1.00	1.14	1.17	0.78	0.92	1.06	0.95
Limited Partners	2.26	2.38	2.11	2.70	2.05	2.44	2.08	2.03	2.16	2.40	2.14	2.08
	1.38	1.36	1.41	1.47	1.29	1.42	1.34	1.36	1.34	1.38	1.21	1.37
Other VC firms or angels	3.25	3.19	3.33	3.23	3.26	3.27	2.92	3.21	3.14	3.22	3.5	3.41
	1.19	1.19	1.19	1.14	1.21	1.17	1.12	1.10	1.37	1.12	1.19	1.17
Accelerators / Incubators	2.73	2.98	2.42	2.95	2.63	3.04	2.02	2.81	2.41	2.86	2.12	2.78
	1.38	1.36	1.34	1.46	1.33	1.37	1.10	1.24	1.49	1.49	0.99	1.22
Portfolio Companies	2.72	2.56	2.89	2.81	2.69	2.66	2.76	2.32	2.83	3	2.25	2.2
	1.33	1.33	1.33	1.34	1.33	1.27	1.38	1.19	1.43	1.34	1.28	1.47
Proactive self-generation	3.87	3.7	4	3.91	3.86	3.64	4.39	3.78	3.88	4.10	4.12	3.96
	1.23	1.29	1.14	1.30	1.20	1.251	1.04	1.14	1.22	1.30	0.83	0.92
Quantitative sourcing	2.33	2.17	2.53	2.15	2.41	2.22	2.64	2.47	1.65	2.23	2	2.19
	1.30	1.19	1.39	1.36	1.26	1.26	1.43	1.26	1.02	1.36	1.22	1.20
VC professional network	3.52	3.51	3.53	3.60	3.49	3.46	3.50	3.35	3.42	3.61	3.2	3.77
	1.22	1.18	1.27	1.17	1.24	1.22	1.26	1.26	1.48	1.06	1.66	1.08
Controlling corporation/bank	1.94	1.78	2.08	2.24	1.8	1.7	2.11	1.72	1.4	2.44	1	1.73
	1.13	1.07	1.17	1.30	1.02	0.93	1.36	0.88	0.51	1.42	0.00	1.10
Governmental body	1.72	1.7	1.76	2.10	1.45	1.71	1.84	1.53	1.5	2.36	1.25	1.78
	0.97	0.95	1.02	1.17	0.70	0.97	0.98	0.71	0.97	1.16	0.5	0.80
Total responses	244	130	114	72	172	132	63	86	47	48	8	32

(1<sup>st</sup> row: mean, 2<sup>nd</sup> row: S.D.)

### 5.3 Deal Screening

Almost 60% of the investors in the sample did not report an impact in deal screening phase. Roughly 6% of respondents claimed that the overall effort required for deal screening significantly increased: among these, small investors seem to be more affected than big investors and “Rest of the world” sample seem to be more impacted than “Europe and North America” samples.

Moving from these findings the research now explores if Covid-19 had an impact on the importance venture capitalists attribute to the screening criteria they take into consideration when selecting investments. In the Table 19 the average degree of importance for each screening criterion is presented, in both pre Covid-19 scenario and post Covid-19 scenario. Results show that the criteria investors used to take the most into consideration before the pandemic are the *business model*, with an average degree of importance of 4.31, the *venture’s management team* (4.28) and the *innovative product/technology* (4.25). Previous research show that some venture capitalists focus more heavily on the business (business model, product and technology - also referred as “*the horse*” in literature), whereas others focus more on the management team (“*the jokey*”). In this study, late-stage investors attribute a bigger importance to the business model with respect to early-stage investors, and, vice versa, the latter focus more on the venture’s management team, as the literature also reports. Counterintuitively, instead, innovative product/technology seem to be more important for small investors than late investors, more important for early VCs than late VCs and more important for IT investors than healthcare investors. *Fit with fund* is another important criterion for investors (4.14) and it is specifically important for social VCs with respect to traditional VCs. The criteria which resulted to be least important for investors before Covid-19 outbreak are *public financial incentives* (1.77) and *favourable economic environment* (2.81).

Performing a comparative analysis of the importance between pre Covid-19 and post Covid-19 scenarios, no remarkable changes are detected. The average degree of importance of all items slightly increased by 0.1 point but there is no evidence of significant positive or negative shift in any of the criteria under evaluation. The ranking of the criteria based on the average amount of importance does not change between pre Covid-19 scenario and post Covid-19 scenario. At subsample level, a slight increase of importance for the criterion *favourable economic environment* is registered for investors

belonging to the subsample “Rest of the world”. This suggests that after Covid-19 outbreak investors who target geographic areas other than Europe and the United States take more into consideration the economic environment when selecting investments.

**Table 19.** Covid-19 impact on Deal Screening.

Factors	All	Fund size		Type of VC		Stage		Geography			Industry	
		Small	Big	Soc.	Trad.	Early	Late	Eur.	N.A	Rest	IT	H
<b>Pre Covid-19</b>												
Ability to add value	4.01	3.98	4.05	4.14	3.96	3.88	4.23	3.67	4.30	4.18	3.62	4.12
	1.00	1.03	0.97	0.93	1.03	1.05	0.96	1.12	0.72	1.02	0.91	1.04
Business Model	4.31	4.29	4.33	4.39	4.28	4.22	4.41	4.24	4.39	4.42	4.37	4.40
	0.76	0.74	0.78	0.76	0.76	0.82	0.75	0.78	0.88	0.77	0.74	0.61
Gut Feel	3.18	3.26	3.10	3.29	3.14	3.33	2.89	3.07	3.16	3.29	2.71	3.15
	1.19	1.11	1.28	1.13	1.21	1.13	1.32	1.12	1.19	1.18	1.49	1.22
Fit with fund	4.14	4.11	4.17	4.38	4.04	4.16	3.95	4.14	4.06	4.23	4.31	4.37
	0.94	1.00	0.87	0.91	0.94	1.00	0.94	0.87	1.10	0.93	1.12	0.74
Industry	3.67	3.63	3.71	4.02	3.52	3.63	3.63	3.5	3.77	3.72	3.75	4.66
	1.18	1.17	1.20	1.12	1.18	1.18	1.17	1.22	1.27	1.11	1.28	0.88
Favourable economy	2.81	2.90	2.72	3.07	2.70	2.8	3.01	2.62	2.82	3.06	2.5	2.65
	1.15	1.15	1.15	1.18	1.12	1.19	1.13	1.06	1.21	1.16	0.92	1.11
Total addressable market	3.76	3.85	3.66	3.72	3.78	3.90	3.39	3.72	3.67	3.87	4.12	3.68
	1.00	0.97	1.03	1.05	0.98	0.94	1.00	0.99	1.01	0.93	0.64	0.99
Innovative product/technology	4.25	4.42	4.05	4.28	4.23	4.42	3.85	4.26	4.15	4.21	4.75	4.40
	0.90	0.73	1.03	0.95	0.88	0.78	1.08	0.91	1.08	0.95	0.46	0.75
Public financial incentives	1.77	1.66	1.90	2.01	1.65	1.82	1.74	1.61	1.88	1.91	1.6	1.96
	.096	0.83	1.08	1.01	0.91	0.94	0.93	0.87	1.09	0.93	0.89	1.24
Venture's management team	4.28	4.36	4.	4.18	4.33	4.32	4.06	4.28	4.47	4.26	4.37	4.21
	1.00	0.92	1.08	1.06	0.97	0.96	1.16	1.05	0.80	0.96	1.40	1.07
Total	244	130	114	72	172	132	63	86	47	48	8	32
	100	100	100	100	100	100	100	100	100	100	100	100
<b>Post Covid-19</b>												
Ability to add value	4.15	4.16	4.13	4.33	4.07	4.03	4.34	3.74	4.41	4.35	3.62	4.06
	0.99	0.97	1.00	0.84	1.03	1.03	0.95	1.10	0.74	0.93	0.91	1.04
Business Model	4.41	4.40	4.43	4.50	4.38	4.33	4.49	4.29	4.43	4.51	4.37	4.40
	0.76	0.74	0.78	0.77	0.76	0.82	0.75	0.78	0.91	0.74	0.74	0.61
Gut Feel	3.12	3.21	3.02	3.15	3.11	3.31	2.79	3.07	3.07	3.17	2.85	3.21
	1.29	1.22	1.37	1.27	1.31	1.24	1.38	1.23	1.31	1.37	1.57	1.33
Fit with fund	4.22	4.20	4.23	4.47	4.11	4.26	4	4.22	4.08	4.34	4.37	4.375
	0.92	0.96	0.88	0.87	0.93	0.95	0.95	0.81	1.09	0.91	0.74	1.0
Industry	3.76	3.72	3.80	4	3.65	3.66	3.70	3.5	3.91	3.91	3.75	4.7
	1.20	1.20	1.22	1.20	1.20	1.25	1.16	1.30	1.22	1.10	1.28	0.75
Favourable economy	2.97	3.02	2.91	3.23	2.85	2.92	3.08	2.671	2.95	3.37	2.37	2.65
	1.24	1.25	1.23	1.18	1.25	1.26	1.17	1.1	1.29	1.21	0.91	1.11
Total addressable market	3.86	3.91	3.80	3.86	3.86	3.97	3.50	3.76	3.78	4.02	4.12	3.71
	0.01	0.98	0.99	1.05	0.96	0.91	1.04	0.98	0.94	1.00	0.64	1.02
Innovative product/technology	4.32	4.47	4.16	4.42	4.29	4.45	3.98	4.33	4.15	4.31	4.75	4.43
	0.85	0.67	0.99	0.85	0.84	0.76	1.00	0.83	1.10	0.83	0.46	0.75
Public financial incentives	1.91	1.82	2.03	2.14	1.81	1.96	1.80	1.71	2	2	1.8	2.2
	1.14	1.07	1.22	1.20	1.10	1.19	1.00	1.04	1.15	1.15	1.09	1.35
Venture's management team	4.38	4.44	4.30	4.31	4.40	4.45	4.11	4.33	4.58	4.4	4.37	4.21
	.096	0.86	1.06	1.05	0.93	0.89	1.17	1.05	0.71	0.96	1.40	1.07
Total	244	130	114	72	172	132	63	86	47	48	8	32
	100	100	100	100	100	100	100	100	100	100	100	100

(1<sup>st</sup> row: mean, 2<sup>nd</sup> row: S.D.)

There is a lot of evidence in literature that venture capitalists often rely on their personal instinct for investment selection. In fact, an intuition to scout a promising deal can be of great help in a context characterized by a lot of variability and risks. This study therefore investigates if after Covid-19 outbreak VC investors are more or less likely to make gut decisions when considering an investment opportunity with respect to pre Covid-19 scenario. *Gut feel* is the only criterion for which a slight decrease in average importance amount is reported in the post Covid-19 scenario, as illustrated in Table 19. Moreover, Early-stage investors seem to rely more on their gut instinct than late-stage investors, in both scenarios. In order to dive deeper in the effect of the pandemic on gut feeling, results in Table 20 show that roughly 70% of respondents in the sample report that Covid-19 outbreak did not have an impact on their likelihood to make gut decisions. Roughly 15% instead claimed that the pandemic contributed to increase the likelihood of making gut decisions and the same percentage, instead, stated Covid-19 reduced this likelihood. A little variance at sub sample level is registered, showing Early-stage investors and “Rest of the world” sample relying slightly more on personal instinct than late-stage investors and “Europe”/“North America” samples, respectively.

**Table 20.** Likelihood of making a “gut decision” in the Post Covid-19 scenario in comparison to Pre Covid-19 scenario

Likelihood	All	Fund size		Type of VC		Stage		Geography			Industry	
		Small	Big	Soc.	Trad.	Early	Late	Eur.	N.A	Rest	IT	H
Less likely	36	18	18	11	25	19	9	15	5	9	1	3
	14.75	13.85	15.79	15.28	14.53	14.39	14.29	17.44	10.64	18.75	12.50	9.38
Not changed	172	90	82	49	123	90	47	62	35	29	7	23
	70.49	69.23	71.93	68.06	71.51	68.18	74.60	72.09	74.47	60.42	87.50	71.88
More likely	36	22	14	12	24	23	7	9	7	10	0	6
	14.75	16.92	12.28	16.67	13.95	17.42	11.11	10.47	14.89	20.83	0.00	18.75
Total	244	130	114	72	172	132	63	86	47	48	8	32
	100	100	100	100	100	100	100	100	100	100	100	100

(1<sup>st</sup> row: N, 2<sup>nd</sup> row: %)

## 5.4 Deal Evaluation

Despite a large fraction of investors in the sample (40%) declared Covid-19 did not change the way they assess deals, deal evaluation result to be the most affected phase of the investment process. Indeed, roughly 32% of the investors reported that the overall effort required to evaluate deals moderately increased and about 10% stated it significantly increased. Among the 10% reporting it significantly increased, a remarkable variance is registered at sub sample level: it seems that more investors targeting geographic areas other than Europe and North America have experienced significant difficulties in evaluating deals (21%) than those targeting Europe (5%).

In order to investigate to what extent venture capitalists have adapted the way they evaluate deals in the new context, the respondents in the sample were first asked to express which financial metric they used to apply when evaluating investments before Covid-19 outbreak. As displayed in Table 21, the most frequently used financial metrics were *multiple of sales/EBITDA* (used by 58% of investors), *cash-on-cash multiples* (48%) and *IRR* (46%). After Covid-19 outbreak investors kept on using the same financial metrics, as no remarkable differences are evident in the results of both scenarios pre and post Covid-19. At subsample level the only remarkable variance is the one regarding the use of *multiples of Sales/EBITDA* and *cash-on-cash multiples*, which result to be adopted much more by late-stage investors (82% and 63% respectively) than by early-stage investors (48% and 36% respectively).

**Table 21.** Financial metrics used to analyze investments.

Financial metric	All	Fund size		Type of VC		Stage		Geography			Industry	
		Small	Big	Soc.	Trad.	Early	Late	Eur.	N.A	Rest	IT	H
<b>Pre Covid-19</b>												
None	29	19	10	9	20	25	1	12	8	3	0	5
	11,89	14,62	8,77	12,50	11,63	18,94	1,59	13,95	17,02	62,50	0,00	15,63
Multiple of Sales/EBITDA	142	72	70	45	97	63	52	47	20	33	5	12
	58,20	55,38	61,40	62,50	56,40	47,73	82,00	54,65	42,55	68,75	62,50	37,50
Cash-on-cash Multiple	117	53	64	35	82	48	40	45	21	20	4	15
	47,95	40,77	56,14	48,61	47,67	36,36	63,49	52,33	44,68	41,67	50,00	46,88
Hurdle Rate	24	10	14	8	16	10	8	6	4	5	0	3
	9,84	7,69	12,28	11,11	9,30	7,58	12,70	6,98	8,51	10,42	0,00	9,38
IRR	112	60	52	42	70	45	42	28	20	28	4	15
	45,90	46,15	45,61	58,33	40,70	34,00	66,67	32,56	42,55	58,33	50,00	46,88
NPV	39	21	18	9	30	16	11	12	2	7	1	8

	15,98	16,15	15,79	12,50	17,44	12,12	17,46	13,95	4,43	14,58	12,50	25,00
Other	40	22	18	14	26	28	6	16	8	7	3	5
	16,39	16,92	15,79	19,44	15,12	21,21	9,52	18,60	17,02	14,58	37,50	15,63
Total responses	244	130	114	72	172	132	63	86	47	48	8	32
<b>Post Covid-19</b>												
None	29	19	10	9	20	25	1	12	8	3	0	5
	11,89	14,62	8,77	12,50	11,63	18,94	1,59	13,95	17,02	6,25	0,00	15,63
Multiple of Sales/EBITDA	143	72	71	47	96	63	52	47	21	32	5	12
	58,61	55,38	62,28	65,28	55,81	47,73	82,54	54,65	44,68	66,67	62,50	37,50
Cash-on-cash Multiple	120	54	66	37	83	49	41	45	21	22	4	15
	49,18	41,54	57,89	51,39	48,26	37,12	65,08	52,33	44,68	45,83	50,00	46,88
Hurdle Rate	25	11	14	8	17	11	8	6	4	6	0	3
	10,25	8,46	12,28	11,11	9,88	8,33	12,70	6,98	8,51	12,50	0,00	9,38
IRR	111	57	54	41	70	43	44	30	20	26	4	15
	45,49	43,85	47,37	56,94	40,70	32,58	69,84	34,88	42,55	54,17	50,00	46,88
NPV	41	23	18	10	31	17	12	12	2	8	1	8
	16,80	17,69	15,79	13,89	18,02	12,88	19,05	13,95	4,26	16,67	12,50	25,00
Other	43	24	19	15	28	29	6	16	8	9	3	5
	17,62	18,46	16,67	20,83	16,28	21,97	9,52	18,60	17,02	18,75	37,50	15,63
Total responses	244	130	114	72	172	132	63	86	47	48	8	32

(1<sup>st</sup> row: N, 2<sup>nd</sup> row: %)

A figure that provides an overview of the potential change in the evaluation practices adopted by VCs is the target gross multiple or cash-on-cash multiple that investors use for investments in general. As illustrated in Table 22, for the largest portion of investors in the sample (22%), the target multiple for an investment is 3-4x. Other target multiples largely adopted are 4-5x (16,39% of respondents), 5-6x (15,57) and >10x (15,16%). At subsample level there is some variance that concerns big target multiples such as 9-10x and >10x: traditional investors adopt these big multiples more often than social investors, early-stage investors more than late-stage investors and investors targeting Europe and North America more than those targeting other geographies. Contrary to what could have been expected, the effect of the pandemic did not result in any remarkable change in the target multiples adopted for investments: proportions of adopted target multiples do not change between the pre and post Covid-19 scenario.

**Table 22.** Target gross multiple or cash-on-cash multiple for an investment.

Target multiple	All	Fund size		Type of VC		Stage		Geography			Industry	
		Small	Big	Soc.	Trad.	Early	Late	Eur.	N.A	Rest	IT	H
<b>Pre Covid-19</b>												
<2 x	1	0	1	1	0	0	1	0	0	1	0	0
	0,41	0,00	0,88	1,39	0,00	0,00	1,59	0,00	0,00	2,08	0,00	0,00
2-3 x	29	14	15	12	17	7	18	14	3	7	0	3
	11,89	10,77	13,16	16,67	9,88	5,30	28,57	16,28	6,38	14,58	0,00	9,38
3-4 x	54	28	26	17	37	21	22	22	9	11	2	11
	22,13	21,54	22,81	23,61	21,51	15,91	34,92	25,58	19,15	22,92	25,00	34,38
4-5 x	40	24	16	15	25	19	10	11	6	11	0	8
	16,39	18,46	14,04	20,83	14,53	14,39	15,87	12,79	12,77	22,92	0,00	25,00
5-6 x	38	22	16	16	22	22	8	11	8	6	1	4
	15,57	16,92	14,04	22,22	12,79	16,67	12,70	12,79	17,02	12,50	12,50	12,50
6-7 x	13	8	5	0	13	8	0	3	7	1	2	2
	5,33	6,15	4,39	0,00	7,56	6,06	0,00	3,49	14,89	2,08	25,00	6,25
7-8 x	10	4	6	2	8	6	2	2	3	2	2	0
	4,10	3,08	5,26	2,78	4,65	4,55	3,17	2,33	6,38	4,17	25,00	0,00
8-9 x	4	1	3	3	1	4	0	0	0	4	0	0
	1,64	0,77	2,63	4,17	0,58	3,03	0,00	0,00	0,00	8,33	0,00	0,00
9-10 x	17	8	9	2	15	12	1	5	4	2	0	3
	6,97	6,15	7,89	2,78	8,72	9,09	1,59	5,81	8,51	4,17	0,00	9,38
>10 x	37	20	17	4	33	32	1	17	7	3	1	1
	15,16	15,38	14,91	5,56	19,19	24,24	1,59	19,77	14,89	6,25	12,50	3,13
Total responses	244	130	114	72	172	132	63	86	47	48	8	32
<b>Post Covid-19</b>												
<2 x	2	1	1	1	1	1	1	0	1	1	0	0
	0,82	0,77	0,88	1,39	0,58	0,76	1,59	0,00	2,13	2,08	0,00	0,00
2-3 x	31	17	14	11	20	8	21	16	2	8	0	4
	12,70	13,08	12,28	15,28	11,63	6,06	33,33	18,60	4,26	16,67	0,00	12,50
3-4 x	53	24	29	20	33	16	22	20	6	12	2	10
	21,72	18,46	25,44	27,78	19,19	12,12	34,92	23,26	12,77	25,00	25,00	31,25
4-5 x	42	26	16	17	25	21	10	9	11	10	0	7
	17,21	20,00	14,04	23,61	14,53	15,91	15,87	10,47	23,40	20,83	0,00	21,88
5-6 x	31	19	12	11	20	21	5	11	5	6	1	5
	12,70	14,62	10,53	15,28	11,63	15,91	7,94	12,79	10,64	12,50	12,50	15,63
6-7 x	15	8	7	2	13	8	2	4	7	0	3	2
	6,15	6,15	6,14	2,78	7,56	6,06	3,17	4,65	14,89	0,00	37,50	6,25
7-8 x	7	4	3	1	6	5	0	2	2	2	1	0
	2,87	3,08	2,63	1,39	3,49	3,79	0,00	2,33	4,26	4,17	12,50	0,00
8-9 x	5	1	4	2	3	4	0	1	1	3	0	0
	2,05	0,77	3,51	2,78	1,74	3,03	0,00	1,16	2,13	6,25	0,00	0,00
9-10 x	18	8	10	2	16	13	1	5	4	2	0	3
	7,38	6,15	8,77	2,78	9,30	9,85	1,59	5,81	8,51	4,17	0,00	9,38
>10 x	39	21	18	5	34	34	1	17	8	4	1	1
	15,98	16,15	15,79	6,94	19,77	25,76	1,59	19,77	17,02	8,33	12,50	3,13
Total responses	244	130	114	72	172	132	63	86	47	48	8	32

(1st row: N, 2nd row: %)



The respondents in the sample were asked to express their degree of importance to the most important factors investors usually take into consideration when evaluating deals. Results displayed in Table 23 show that the venture capitalists in the sample consider, on average, *anticipated exit* as the most important factor, followed by *valuation of comparable investments* and *desired ownership fraction*. In fact, no significant differences are reported between pre and post Covid-19 scenario, nor across subsamples.

**Table 23.** Most important factors when evaluating deals.

Factor	All	Fund size		Type of VC		Stage		Geography			Industry	
		Small	Big	Soc.	Trad.	Early	Late	Eur.	N.A	Rest	IT	H
<b>Pre Covid-19</b>												
Competitive pressure from other VCs	2,36	2,23	2,50	2,11	2,46	2,38	2,19	2,54	1,97	2,20	3,625	2,871
	1,40	1,37	1,50	1,42	1,43	1,46	1,45	1,35	1,70	1,36	1,06	1,02
Anticipated exit	3,82	3,67	3,99	3,75	3,85	3,62	4,06	3,75	3,70	4,06	3,75	4,38
	1,17	1,04	0,99	1,01	1,02	1,09	0,93	1,00	1,06	0,93	0,89	0,66
Valuation of comparable investments	3,76	3,71	3,74	3,65	3,75	3,56	4,02	3,78	3,70	3,81	3,88	4,09
	1,00	1,01	0,99	1,09	0,96	1,07	0,81	0,94	1,08	0,98	0,84	0,86
Desired ownership fraction	3,22	3,34	3,07	3,32	3,18	3,43	2,79	3,22	3,34	3,28	3,50	3,66
	1,11	1,07	1,16	1,06	1,14	1,02	1,18	1,12	1,05	1,16	0,76	1,10
Total responses	244	130	114	72	172	132	63	86	47	48	8	32
<b>Post Covid-19</b>												
Competitive pressure from other VCs	2,59	2,49	2,71	2,45	2,65	2,63	2,36	2,93	2,08	2,41	4,00	3,09
	1,63	1,60	1,68	1,66	1,62	1,66	1,58	1,60	1,79	1,59	1,31	1,25
Anticipated exit	3,97	3,83	4,13	4	3,95	3,78	4,13	3,86	3,82	4,27	3,88	4,47
	1,20	1,36	0,98	1,21	1,21	1,37	0,98	1,20	1,29	0,94	0,64	0,62
Valuation of comparable investments	3,79	3,79	3,79	3,76	3,80	3,68	4,06	3,83	3,60	3,85	3,88	4,09
	1,09	1,13	1,05	1,20	1,05	1,09	0,95	0,95	1,25	1,01	0,84	0,96
Desired ownership fraction	3,28	3,33	3,22	3,43	3,22	3,49	2,90	3,22	3,40	3,20	3,37	3,65
	1,25	1,21	1,29	1,05	1,32	1,18	1,34	1,29	1,15	1,25	0,74	1,09
Total responses	244	130	114	72	172	132	63	86	47	48	8	32

(1<sup>st</sup> row: mean, 2<sup>nd</sup> row: S.D.)

With Covid-19 outbreak a new type of uncertainty was introduced and adapting work to this context represented one of the most complicated challenges for venture capitalists. When evaluating a deal, it is somewhat common to make some adjustments in the financial metrics adopted to assess the investment opportunity, especially when some variables are subject to uncertainties. Therefore, it is very interesting to explore what kind

of adjustments investors have made to deal with uncertainty caused by Covid-19 crisis. As displayed in Table 24, almost half of the investors in the sample (47%) claimed that made *adjustments in cash flow projections*. This may find explanation in the fact that due to the outbreak of the pandemic a lot of businesses saw their returns being altered significantly. It goes without saying that venture capitalists had to keep into consideration in their analysis such economic shock in order to better appreciate potential growth of businesses. Some investors declared to have made *adjustments related to the difficulty in finding financial resources* (24% of investors in the sample) and *adjustments in the allocation of a higher cost of capital* (10%). A large portion of venture capitalists, around 40%, instead reported to have made no adjustments for valuations at all after Covid-19 outbreak. The largest variance across subsamples is spotted between investors targeting Europe and North America vs investors targeting other geographies: the latter seem to have applied extensively more adjustments than the former.

**Table 24.** Type of adjustments for valuations after Covid-19 outbreak.

Type of adjustments	All	Fund size		Type of VC		Stage		Geography			Industry	
		Small	Big	Soc.	Trad.	Early	Late	Eur.	N.A	Rest	IT	H
Adjustments in cash flow projections	114 46,72	64 49,23	50 43,86	44 61,11	70 40,70	55 41,67	34 53,97	40 46,51	10 21,28	32 66,67	3 37,50	8 25,00
Adjustments in the allocation of a higher cost of capital	25 10,25	19 14,62	6 5,26	10 13,89	15 8,72	13 9,85	8 12,70	7 8,14	4 8,51	9 18,75	1 12,50	4 12,50
Adjustments related to the difficulty in finding financial resources	59 24,18	36 27,69	23 20,18	22 30,56	37 21,51	33 25,00	14 22,22	19 22,09	7 14,89	22 45,83	1 12,50	10 31,25
No adjustments	98 40,16	48 36,92	50 43,86	24 33,33	74 43,02	56 42,42	22 34,92	38 44,19	27 57,45	8 16,67	5 62,50	15 46,88
Other	23 9,43	8 6,15	15 13,16	7 9,72	16 9,30	13 9,85	5 7,94	6 6,98	5 10,64	3 6,25	1 12,50	4 12,50
Total	244 100	130 100	114 100	72 100	172 100	132 100	63 100	86 100	47 100	48 100	8 100	32 100

(1st row: N, 2nd row: %)

In terms of adjustments for valuations, it is interesting to investigate for what type of companies VCs have made more adjustments. As it may have been guessed, embryonic companies are the ones for which the investors in the sample made more adjustments (26% of respondents), whereas adjustments for mature companies have been performed

by 17% of investors. This finding is reasonable because in the context of a new crisis companies' performance may greatly vary and it is particularly true for embryonic ones: some may experience a big gain and some other may be greatly hurt. The biggest variance across subsamples is obviously reported between early-stage investors and late-stage investors: the former applied more adjustments for embryonic companies and the latter applied more adjustments for mature companies. A significant fraction of the investors in the sample made adjustments for both embryonic and mature companies (21%), whereas 36% made no adjustments at all. Results are displayed in Table 25.

**Table 25.** Type of companies for which venture capitalists have made adjustments for valuations after Covid-19 outbreak.

Type of company	All	Fund size		Type of VC		Stage		Geography			Industry	
		Small	Big	Soc.	Trad.	Early	Late	Eur.	N.A	Rest	IT	H
Embryonic companies	64	38	26	19	45	42	7	20	11	19	1	10
	26,23	29,23	22,81	26,39	26,16	31,82	11,11	23,26	23,40	39,58	12,50	31,25
More mature companies	41	19	22	11	30	17	20	20	6	7	2	5
	16,80	14,62	19,30	15,28	17,44	12,88	31,75	23,26	12,77	14,58	25,00	15,63
Both	52	25	27	18	34	25	14	13	9	12	0	5
	21,31	19,23	23,68	25,00	19,77	18,94	22,22	15,12	19,15	25,00	0,00	15,63
None	87	48	39	24	63	48	22	33	21	10	5	12
	35,66	36,92	34,21	33,33	36,63	36,36	34,92	38,37	44,68	20,83	62,50	37,50
Total	244	130	114	72	172	132	63	86	47	48	8	32
	100	100	100	100	100	100	100	100	100	100	100	100

(1st row: N, 2nd row: %)

Lastly, in order to appreciate the impact of Covid-19 on the investment practices of VC firms, the respondents in the sample were asked to report the target IRR for the fund they work for, both pre and post Covid-19 outbreak. As illustrated in Table 26, 51% of the investors surveyed stated their fund had a target IRR between 20-29% before Covid-19 outbreak, 22% of the respondents had a target IRR of 30-39% and around 11% had a target of 10-19%. The same proportions are registered across subsamples. Performing a comparative analysis between the results of pre Covid-19 scenario and post Covid-19, no remarkable shift in proportions is registered, both at overall sample level and at subsample level.

**Table 26.** Target IRR of the fund.

Target IRR	All		Fund size		Type of VC		Stage		Geography			Industry	
			Small	Big	Soc.	Trad.	Early	Late	Eur.	N.A	Rest	IT	H
<b>Pre Covid-19</b>													
<10%	3	3	0		2	1	2	1	3	0	0	0	0
	1,23	2,31	0,00		2,78	0,58	1,52	1,59	3,49	0,00	0,00	0,00	0,00
10-19%	26	9	17		13	13	11	8	9	5	6	0	3
	10,66	6,92	14,91		18,06	7,56	8,33	12,70	10,47	10,64	12,50	0,00	9,38
20-29%	124	65	59		35	89	63	39	43	25	25	3	20
	50,82	50,00	51,75		48,61	51,74	47,73	61,90	50,00	53,19	52,08	37,50	62,50
30-39%	53	29	24		13	40	31	11	15	11	14	3	4
	21,72	22,31	21,05		18,06	23,26	23,48	17,46	17,44	23,40	29,17	37,50	12,50
40-49%	12	8	4		2	10	6	2	5	2	1	1	0
	4,92	6,15	3,51		2,78	5,81	4,55	3,17	5,81	4,26	2,08	12,50	0,00
>50%	12	7	5		2	10	9	1	3	3	1	0	2
	4,92	5,38	4,39		2,78	5,81	6,82	1,59	3,49	6,38	2,08	0,00	6,25
N/A	14	9	5		5	9	10	1	8	1	1	1	3
	5,74	6,92	4,39		6,94	5,23	7,58	1,59	9,30	2,13	2,08	12,50	9,38
Total responses	244	130	114		72	172	132	63	86	47	48	8	32
<b>Post Covid-19</b>													
<10%	2	1	1		2	0	1	0	2	0	0	0	0
	0,82	0,77	0,88		2,78	0,00	0,76	0,00	2,33	0,00	0,00	0,00	0,00
10-19%	32	12	20		16	16	15	10	10	6	9	1	3
	13,11	9,23	17,54		22,22	9,30	11,36	15,87	11,63	12,77	18,75	12,50	9,38
20-29%	123	68	55		33	90	60	41	42	24	23	3	20
	50,41	52,31	48,25		45,83	52,33	45,45	65,08	48,84	51,06	47,92	37,50	62,50
30-39%	46	25	21		11	35	29	6	14	11	12	2	4
	18,85	19,23	18,42		15,28	20,35	21,97	9,52	16,28	23,40	25,00	25,00	12,50
40-49%	12	6	6		2	10	6	3	4	1	2	1	0
	4,92	4,62	5,26		2,78	5,81	4,55	4,76	4,65	2,13	4,17	12,50	0,00
>50%	13	8	5		1	12	10	1	4	4	1	0	2
	5,33	6,15	4,39		1,39	6,98	7,58	1,59	4,65	8,51	2,08	0,00	6,25
N/A	16	10	6		7	9	11	2	10	1	1	1	3
	6,56	7,69	5,26		9,72	5,23	8,33	3,17	11,63	2,13	2,08	12,50	9,38
Total responses	244	130	114		72	172	132	63	86	47	48	8	32

(1st row: N, 2nd row: %)

## 5.5 Deal Structuring

Roughly 70% of investors reported Covid-19 outbreak did not change the effort required from them to structure deals. In order to furtherly assess if the pandemic had an effect on this investment phase, respondents were asked which phase of the deal structing was mostly impacted. As shown in Table 27, most of the investors in the sample specified *due diligence* as the most impacted activity (selected by 45% of respondents at overall sample

level). *Review with partners and investment committee* and *Term sheet preparation* were reported as the most impacted activities by 22% and 18% of respondents respectively.

**Table 27.** Covid-19 impact on Deal Structuring.

Activities	All	Fund size		Type of VC		Stage		Geography			Industry	
		Small	Big	Soc.	Trad.	Early	Late	Eur.	N.A	Rest	IT	H
Not affected	99	57	42	29	70	57	23	34	19	20	3	16
	40.57	43.85	36.84	40.28	40.70	43.18	36.51	39.53	40.43	41.67	37.50	50.00
Review with partners	54	31	23	19	35	28	14	24	6	14	2	8
	22.13	23.85	20.18	26.39	20.35	21.21	22.22	27.91	12.77	29.17	25.00	25.00
Due diligence	109	50	59	34	75	48	37	29	20	25	4	14
	44.67	38.46	51.75	47.22	43.60	36.36	58.73	33.72	42.55	52.08	50.00	43.75
Term sheets preparation	45	25	20	19	26	22	11	19	5	12	1	7
	18.44	19.23	17.54	26.39	15.12	16.67	17.46	22.09	10.64	25.00	12.50	21.88
Other	11	6	5	7	4	8	2	3	3	2	1	1
	4.51	4.62	4.39	9.72	2.33	6.06	3.17	3.49	6.38	4.17	12.50	3.13
Total	244	130	114	72	172	132	63	86	47	48	8	32
	100	100	100	100	100	100	100	100	100	100	100	100

(1<sup>st</sup> row: N, 2<sup>nd</sup> row: %)

18% of respondents at overall sample level stated that contract terms are the most impacted activities in the post Covid-19 scenario. One of the objectives of this study is to investigate whether Covid-19 made contract terms more investor friendly, as it may be expected in such context characterized by a significant increase in uncertainty. To this purpose the respondents in the sample were asked to assign a degree of importance to a set of contract terms, for both per Covid-19 scenario and post Covid-19 scenario. The average values and variances are shown in Table 22. Results show that venture capitalists in the pre Covid-19 scenario used to give a lot of importance to control rights, with *board rights* scoring an average of 4.18 and *pro rata rights* 3.71. Late-stage investors reported to give more importance to board rights (4.41) than early-stage investors (3.97). *Valuation* is the contract term which scored the second highest average value at overall sample (4.17) in the pre Covid-19 scenario. The contract terms venture capitalists were more flexible about are *dividends* (2.02), which scored a particularly low average score by investors targeting investments in Europe (1.80) and North America (1.86) with respect to those targeting other geographies (2.40), *option pool* (3.05), *redemption rights* (3.06) and *vesting provision* (3.07). In order to assess if post Covid-19 scenario affected to some extent contract terms, a comparative analysis between average values pre and post Covid is needed. No remarkable shift in averages is registered. The contract terms that venture

capitalists attributed a greater importance remain *valuation* (4.31), whose importance increased the most relatively to other contract terms, *board rights* (4.18) and *pro-rata rights* (3.83). Some little increase in average values can be found for some terms like *valuation*, whose average degree of importance increased from 4.17 to 4.31, *pro-rata rights*, from 3.71 to 3.83, *liquidation preference*, from 3.59 to 3.70, and *vesting provision*, from 3.07 to 3.11. Moreover, also in the post Covid-19 scenario, the contract terms that venture capitalists consider as less important are *dividends* (2.04) and *option pool* (3.09).

**Table 28.** Covid-19 impact on Contractual features.

Contractual Features	All	Fund size		Type of VC		Stage		Geography			Industry	
		Small	Big	Soc.	Trad.	Early	Late	Eur.	N.A	Rest	IT	H
<b>Pre Covid-19</b>												
Antidilution protection	3.48	3.47	3.50	3.79	3.35	3.40	3.50	3.41	3.05	3.80	3.71	3.67
	1.18	1.27	1.07	0.91	1.25	1.20	1.22	1.20	1.26	0.98	0.75	1.10
Option pool	3.05	3.13	2.96	3.03	3.06	3.16	2.75	3.14	3.02	2.84	3.28	3.22
	1.08	1.11	1.05	1.19	1.04	1.01	1.21	1.15	0.86	1.09	0.95	1.05
Dividends	2.02	2.01	2.04	2.29	1.90	1.88	2.22	1.80	1.86	2.40	1.2	2
	1.16	1.24	1.08	1.21	1.13	1.15	1.24	1.07	1.06	1.34	0.44	1.11
Investment amount	3.56	3.61	3.52	3.53	3.58	3.63	3.43	3.42	3.81	3.58	3	3.90
	0.97	0.95	1.00	0.92	1.00	0.91	1.06	1.01	0.81	1.08	1.15	0.83
Ownership stake	3.59	3.52	3.67	3.5	3.63	3.70	3.46	3.65	3.40	3.65	3.14	3.77
	1.06	1.11	1.01	0.92	1.12	1.03	1.05	1.00	1.08	1.10	0.90	1.08
Valuation	4.17	4.11	4.24	4.14	4.18	4.12	4.23	4.07	4.30	4.27	3.71	4.38
	0.88	0.91	0.85	0.78	0.93	0.87	0.97	0.90	0.83	0.85	0.75	0.66
Board rights	4.18	4.03	4.36	4.22	4.17	3.97	4.41	4.28	3.93	4.36	4.71	4.64
	0.96	1.05	0.82	0.94	0.97	1.05	0.77	0.84	1.14	0.89	0.48	0.55
Pro rata rights	3.71	3.78	3.73	3.75	3.76	3.85	3.66	3.71	3.72	3.89	3.85	3.87
	1.03	1.05	1.01	1.01	1.04	0.94	1.13	1.09	1.07	0.99	1.21	0.84
Liquidation preference	3.59	3.68	3.48	3.62	3.57	3.55	3.55	3.60	3.42	3.65	3.14	4.12
	1.17	1.19	1.14	1.12	1.19	1.24	1.12	1.19	1.38	1.13	1.34	0.88
Participation	3.45	3.50	3.39	3.55	3.41	3.36	3.64	3.43	3.24	3.84	2.33	3.9
	1.02	1.01	1.03	0.98	1.03	1.03	1.05	1.07	0.95	0.98	1.03	0.71
Redemption rights	3.06	3.18	2.93	3.35	2.93	3.10	3.10	3.05	2.54	3.45	2.33	2.93
	1.25	1.27	1.22	1.13	1.28	1.23	1.31	1.33	1.09	1.21	1.50	1.20
Vesting provision	3.07	3.10	3.03	3.12	3.05	3.17	3	3.16	2.81	3.19	3	3
	1.09	1.12	1.06	1.00	1.13	1.08	1.05	1.15	1.05	1.12	0.63	0.92
Total responses	244	130	114	72	172	132	63	86	47	48	8	32
<b>Post Covid-19</b>												
Antidilution protection	3.49	3.46	3.52	3.81	3.35	3.43	3.45	3.46	3.07	3.76	3.85	3.77
	1.20	1.31	1.07	0.91	1.29	1.22	1.24	1.25	1.26	0.94	0.69	1.14
Option pool	3.09	3.23	2.93	3.02	3.12	3.24	2.69	3.15	3.02	3	3.42	3.22
	1.15	1.15	1.14	1.28	1.09	1.07	1.30	1.22	0.92	1.25	1.13	1.05
Dividends	2.04	2.01	2.08	2.29	1.93	1.9	2.24	1.78	1.92	2.34	1.2	1.95

	1.16	1.23	1.08	1.19	1.13	1.15	1.25	1.06	1.05	1.33	0.44	1.09
Investment amount	3.67	3.73	3.62	3.66	3.68	3.74	3.5	3.53	3.93	3.54	3	4.06
	1.01	1.01	1.01	0.98	1.03	0.99	1.03	1.09	0.78	1.06	1.15	0.77
Ownership stake	3.64	3.51	3.61	3.61	3.65	3.77	3.46	3.66	3.47	3.69	3.14	3.77
	1.11	1.14	3.78	1.02	1.14	1.09	1.06	1.01	1.15	1.13	0.90	1.11
Valuation	4.31	4.21	4.42	4.42	4.26	4.22	4.34	4.08	4.51	4.48	3.42	4.54
	0.86	0.95	0.74	0.78	0.90	0.90	0.88	0.96	0.70	0.85	0.97	0.56
Board rights	4.18	4.03	4.36	4.16	4.19	3.94	4.38	4.26	3.88	4.29	4.71	4.61
	0.98	1.05	0.87	1.01	0.97	1.07	0.90	0.89	1.20	0.93	0.48	0.55
Pro rata rights	3.83	3.86	3.80	3.84	3.82	3.96	3.66	3.75	3.83	3.93	4.14	3.93
	1.05	1.05	1.06	1.03	1.07	0.91	1.22	1.16	1.06	0.99	0.90	0.89
Liquidation preference	3.70	3.77	3.63	3.82	3.65	3.61	3.72	3.64	3.51	3.86	3	4.19
	1.22	1.26	1.17	1.19	1.23	1.30	1.18	1.28	1.41	1.14	1.52	0.83
Participation	3.5	3.51	3.48	3.59	3.45	3.39	3.67	3.44	3.32	3.93	2.33	3.93
	1.05	1.02	1.09	1.04	1.06	1.06	1.09	1.11	0.94	1.02	1.03	0.69
Redemption rights	3.07	3.18	2.96	3.38	2.93	3.09	3.18	3.05	2.56	3.5	2.33	2.9
	1.29	1.29	1.28	1.20	1.30	1.22	1.37	1.36	1.11	1.24	1.50	1.21
Vesting provision	3.11	3.12	3.09	3.21	3.06	3.22	3.03	3.13	2.86	3.22	2.66	3
	1.16	1.17	1.16	1.15	1.17	1.13	1.17	1.17	1.15	1.25	0.51	1.00
Total responses	244	130	114	72	172	132	63	86	47	48	8	32

(1<sup>st</sup> row: mean, 2<sup>nd</sup> row: S.D.)

According to previous research, contractual terms are found to be more founder-friendly after Covid-19 outbreak than they used to be before, despite the expectations that the increased uncertainty brought by the pandemic would make contractual terms more investor-friendly (Gompers et al., 2020). In this regard this study pursues a further investigation directly asking respondents what is their judgement about negotiation power. Table 29 shows how there is no clear shift in negotiation power between investors and entrepreneurs in general. In fact, roughly 45% of respondents in the sample reported no shifts in negotiation power. An interesting finding is that 26.23% of investors claimed venture capitalists gained negotiation power over entrepreneurs and almost the same percentage stated the exact opposite, reporting that entrepreneurs gained more power over investors. No particular variance is observed at subsample level: in each subsample the majority of the investors stated there is no shift in negotiation and the percentage of people who reported venture capitalists gained power is approximately the same as the percentage of those claiming entrepreneurs gained power. The subsamples that reported Covid-19 turned favoured venture capitalists are “Small” investors over “Big” ones, “Social” over “Traditional”, “Late stage” over “Early stage”, “Rest of the world” over “Europe” and “North America”, “Healthcare” over “IT”.

**Table 29.** Covid-19 impact on negotiation power between investors and entrepreneurs.

Impact	All	Fund size		Type of VC		Stage		Geography			Industry	
		Small	Big	Soc.	Trad.	Early	Late	Eur.	N.A	Rest	IT	H
VCs gained negotiation power over entrepreneurs	64	39	25	25	39	32	18	16	12	18	1	10
	26.23	30.00	21.93	34.72	22.67	24.24	28.57	18.60	25.53	37.50	12.50	31.25
Entrepreneurs gained negotiation power over VCs	65	32	33	19	46	38	15	23	16	8	4	6
	26.64	24.62	28.95	26.39	26.74	28.79	23.81	26.74	34.04	16.67	50.00	18.75
No shifts negotiation power	109	56	53	28	81	57	30	44	16	22	2	15
	44.67	43.08	46.49	38.89	47.09	43.18	47.62	51.16	34.04	45.83	25.00	46.88
Total	244	130	114	72	172	132	63	86	47	48	8	32
	100	100	100	100	100	100	100	100	100	100	100	100

(1<sup>st</sup> row: N, 2<sup>nd</sup> row: %)

## 5.6 Post Investment value-added activities

Almost half of the investors in the sample reported Covid-19 outbreak did not change the effort required from them to conduct post investment value-added activities. Roughly 12% stated that the effort significantly increased: among them, late-stage investors seem to be more impacted than early-stage investors and VCs investing in other geographical areas than Europe seem to be more affected than those investing in Europe.

In terms of post-investment activities, this study aims at investigating if after the pandemic venture capitalists reduced the frequency with which they interact with the management of portfolio companies. As shown in Table 30, before Covid-19 outbreak the larger portion of investors in the sample (34%) reported to meet the management of portfolio companies 2-3 times a month. In the post Covid-19 scenario, results show that venture capitalists meet the venture's management more frequently than what they used to do. In comparison to the results provided for the first scenario, a larger portion of respondents provided an answer that ranges between 2-3 times a month (29%), once a week (24%) and multiples times a week (22%). Therefore, despite travel restrictions and difficulties that the pandemic has entailed, these outcomes show that investors increased the frequency with which interacting with the management of portfolio companies. An explanation might be that companies needed further support by the venture capital firm to deal with the increased uncertainty and difficulties caused by Covid-19 crisis.



**Table 30.** Frequency of interaction with the management of portfolio companies.

Frequency	All	Fund size		Type of VC		Stage		Geography			Industry	
		Small	Big	Soc.	Trad.	Early	Late	Eur.	N.A	Rest	IT	H
<b>Pre Covid-19</b>												
Never	1	1	0	1	0	1	0	0	0	1	0	0
	0.41	0.77	0.00	1.39	0.00	0.76	0.00	0.00	0.00	2.08	0.00	0.00
Less than once a month	12	10	2	4	8	10	2	1	3	3	0	0
	4.92	7.69	1.75	5.56	4.65	7.58	3.17	1.16	6.38	6.25	0.00	0.00
Once a month	57	33	24	19	38	28	12	16	14	11	1	2
	23.36	25.38	21.05	26.39	22.09	21.21	19.05	18.60	29.79	22.92	12.50	6.25
2-3 times a month	84	38	46	24	60	50	19	32	15	11	2	21
	34.43	29.23	40.35	33.33	34.88	37.88	30.16	37.21	31.91	22.92	25.00	65.63
Once a week	46	26	20	14	32	19	14	18	8	12	2	7
	18.85	20.00	17.54	19.44	18.60	14.39	22.22	20.93	17.02	25.00	25.00	21.88
Multiple times a week	33	16	17	7	26	15	15	15	4	8	1	0
	13.52	12.31	14.91	9.72	15.12	11.36	23.81	17.44	8.51	16.67	12.50	0.00
Every day	0	0	0	0	0	0	0	0	0	0	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	244	130	114	72	172	132	63	86	47	48	8	32
	100	100	100	100	100	100	100	100	100	100	100	100
<b>Post Covid-19</b>												
Never	0	0	0	0	0	0	0	0	0	0	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Less than once a month	10	9	1	4	6	9	1	2	3	3	0	0
	4.10	6.92	0.88	5.56	3.49	6.82	1.59	2.33	6.38	6.25	0.00	0.00
Once a month	39	25	14	12	27	20	9	11	7	9	1	3
	15.98	19.23	12.28	16.67	15.70	15.15	14.29	12.79	14.89	18.75	12.50	9.38
2-3 times a month	70	33	37	22	48	40	16	24	17	6	2	13
	28.69	25.38	32.46	30.56	27.91	30.30	25.40	27.91	36.17	12.50	25.00	40.63
Once a week	58	31	27	17	41	35	9	22	9	12	1	10
	23.77	23.85	23.68	23.61	23.84	26.52	14.29	25.58	19.15	25.00	12.50	31.25
Multiple times a week	55	26	29	14	41	19	26	22	8	16	2	4
	22.54	20.00	25.44	19.44	23.84	14.39	41.27	25.58	17.02	33.33	25.00	12.50
Every day	1	0	1	0	1	0	1	1	0	0	0	0
	0.41	0.00	0.88	0.00	0.58	0.00	1.59	1.16	0.00	0.00	0.00	0.00
Total	244	130	114	72	172	132	63	86	47	48	8	32
	100	100	100	100	100	100	100	100	100	100	100	100

(1<sup>st</sup> row: N, 2<sup>nd</sup> row: %)

As shown in the previous paragraph, 47% of the respondents reported that Covid-19 did not affect post-investment activities. The research now investigates to what extent did Covid-19 have an impact on the value-added activities VCs perform for portfolio companies. A comparative analysis between pre and post Covid-19 scenario was performed about the degree of importance that respondents attributed to the activities they

carry on. As shown in Table 31, in the pre Covid-19 scenario the activities that investors consider as most valuable are *strategic guidance* (4.22), *connect with investors* (3.99), *connect with customers, suppliers and partners* (3.81) and *help to reach financial resources* (3.78). After Covid-19 outbreak, *strategic guidance* remained the most valuable activity but even furtherly increased its average importance (4.45). With the pandemic two activities in particular seem to have become core value-added activities that venture capitals provide to help their portfolio companies: *connecting with investors* increased its relevance by far shifting from 3.99 to 4.22, and *providing help to reach financial resources* also increased from 3.78 to 4.04. This can find explanation in the fact that in such context where the crisis first started as a sanitary crisis but then escalated into an economic crisis and embraced many different spheres, one of the biggest difficulties entrepreneurs might encounter is finding financial resources to grow their businesses. *Connect with customers, suppliers and partners* also slightly increased its average from pre to post Covid-19 scenario, shifting from 3.81 to 3.96: this activity also seems to be more relevant for investors targeting geographic areas other than Europe and North America. The activities that investors reported to be as the less important is *hiring employees*, in both pre and post Covid scenarios.

**Table 31.** Covid-19 impact on value-added activities.

Activities	All	Fund size		Type of VC		Stage		Geography			Industry	
		Small	Big	Soc.	Trad.	Early	Late	Eur.	N.A	Rest	IT	H
<b>Pre Covid-19</b>												
Hiring employees	2.59	2.60	2.59	2.57	2.60	2.73	2.31	2.6	2.53	2.57	2.83	2.69
	1.12	1.18	1.06	1.21	2.60	1.16	1.07	1.00	1.38	1.13	0.40	1.10
Hiring managers	3.54	3.45	3.65	3.53	3.55	3.48	3.54	3.51	3.42	3.64	4.16	3.96
	1.12	1.17	1.06	1.08	1.148	1.10	1.23	1.13	1.30	1.09	0.75	0.96
Hiring board members	3.55	3.50	3.61	3.44	3.6	3.47	3.71	3.67	3.42	3.41	3.33	4.36
	1.28	1.27	1.30	1.35	1.25	1.28	1.37	1.30	1.32	1.41	1.21	0.85
Operational guidance	3.29	3.27	3.30	3.25	3.30	3.26	3.43	3.17	3.69	3.37	3.5	3.66
	1.14	1.15	1.13	1.10	1.16	1.10	1.18	1.07	1.19	1.19	1.37	1.12
Strategic guidance	4.22	4.21	4.25	4.19	4.24	4.18	4.32	4.31	4.39	4.24	4.16	4.56
	0.09	0.96	0.90	1.09	0.86	0.91	0.91	0.79	0.90	0.98	1.32	0.62
Connect with customers, suppliers, partners	3.81	3.88	3.72	3.92	3.76	3.80	3.85	3.61	3.76	3.82	3.5	3.96
	0.99	0.95	1.03	0.93	1.01	1.05	1.03	0.94	1.15	0.91	0.83	0.85
Connect with investors	3.99	4.05	3.92	3.83	4.05	4.14	3.37	3.93	4.02	3.83	3.83	4.36
	1.02	0.93	1.11	1.07	0.99	0.91	1.18	1.09	1.11	0.92	1.16	0.66
Help to reach financial resources	3.78	3.75	3.81	3.66	3.83	3.66	3.93	3.81	3.65	3.66	4	3.96
	0.96	0.99	0.93	0.90	0.98	1.06	0.84	0.95	1.23	0.82	0.89	0.85
Total responses	244	130	114	72	172	132	63	86	47	48	8	32
<b>Post Covid-19</b>												
Hiring employees	2.75	2.78	2.71	2.76	2.74	2.86	2.49	2.68	2.8	2.72	2.83	2.82
	1.21	1.26	1.16	1.34	1.16	1.19	1.29	1.04	1.48	1.32	0.40	1.25
Hiring managers	3.68	3.59	3.79	3.71	3.67	3.59	3.69	3.62	3.69	3.75	4.16	4
	1.13	1.16	1.10	1.12	1.14	1.12	1.28	1.10	1.38	1.15	0.75	0.94
Hiring board members	3.62	3.55	3.69	3.6	3.63	3.48	3.80	3.7	3.45	3.47	3.33	4.43
	1.29	1.29	1.30	1.33	1.28	1.33	1.30	1.29	1.36	1.42	1.21	0.77
Operational guidance	3.56	3.53	3.59	3.65	3.52	3.51	3.69	3.37	3.95	3.73	3.5	3.9
	1.19	1.20	1.20	1.10	1.23	1.20	1.16	1.23	1.14	1.19	1.37	1.21
Strategic guidance	4.45	4.42	4.48	4.50	4.42	4.41	4.5	4.43	4.48	4.62	4.16	4.76
	0.79	0.80	0.79	0.89	0.75	0.77	0.80	0.72	0.88	0.68	1.32	0.50
Connect with customers, suppliers, partners	3.96	4.07	3.83	4.20	3.85	3.95	3.96	3.68	3.81	4.2	3.5	4.1
	1.01	0.92	1.10	0.93	1.03	1.07	1.07	1.00	1.13	0.94	0.83	0.92
Connect with investors	4.22	4.31	4.12	4.13	4.25	4.41	3.54	4.13	4.20	4.16	4	4.6
	1.00	0.88	1.11	1.09	0.96	0.80	1.27	1.09	1.02	1.02	0.89	0.56
Help to reach financial resources	4.04	3.99	4.11	3.98	4.07	3.90	4.21	4.11	3.79	4.08	4.16	4.16
	0.97	1.03	0.90	0.93	0.99	1.09	0.75	0.90	1.28	0.87	0.75	0.79
Total responses	244	130	114	72	172	132	63	86	47	48	8	32

(1<sup>st</sup> row: mean, 2<sup>nd</sup> row: S.D.)

## 5.7 Exit

The timing and type of exit are critical to the success of VC investments. In fact, venture capitalists invest in private companies through funds that are typically structured as ten-year vehicles and they earn profit share or carry only when their investments return capital to their investors. Along with what is reported in literature, before the pandemic the exit route experienced the most by the investors in the sample is M&A. In particular, *sale to an industrial player* is the most typical exit type with an average score of 3.95/5, followed by *sale to private equity* (2.82). Venture capitalists also exit investments through *IPO*, that reached an average score of 2.53. It seems that *Management buyout* is the less experienced exit for the respondents of this study (1.90). At subsample level, results in Table 32 show that sale to private equity is more experienced by late-stage investors than by early-stage investors and more by the VCs belonging to the sample “Rest of the world” than those in the sample “Europe” and “North America”. Lastly, venture capitalists also experience not rarely write-offs (1.99 at overall sample), even if results show that early-stage investors experience it more often than late-stage investors and VCs targeting Europe experience it more than those targeting North America and other geographies. In order to analyse if the pandemic had an effect on the type of exit routes respondents a comparison of the results pre and post Covid-19 outbreak has been performed. The pandemic did not reverse or change the order of the most experienced exit routes, but *IPO* and *sale to private equity* increased relatively more than the other exit types, growing by 0.2 points on average. Despite the increased uncertainty brought by Covid-19 outbreak, there is no exceptional increase for write-offs than for the other exit routes.

**Table 32.** Frequency with which venture capitalists experience exit routes.

Type of exit	All	Fund size		Type of VC		Stage		Geography			Industry	
		Small	Big	Soc.	Trad.	Early	Late	Eur.	N.A	Rest	IT	H
<b>Pre Covid-19</b>												
IPO	2,53	2,18	2,80	2,66	2,48	2,37	2,49	2,29	2,54	2,59	2,8	3,07
	1,2	1,15	1,16	1,22	1,19	1,11	1,24	1,09	1,15	1,39	0,83	1,05
Sale to an industrial player	3,95	3,92	3,99	3,92	3,96	3,84	4,17	4,02	3,89	4	4	4,18
	1,03	1,10	0,97	0,97	1,06	1,11	0,86	0,87	1,11	1,16	0,63	0,78
Sale to PE	2,82	2,64	2,98	2,88	2,79	2,56	3,31	2,79	2,5	3,2	3	2,42
	1,26	1,29	1,21	1,25	1,26	1,22	1,22	1,25	1,21	1,37	0,89	1,28
Management buyout	1,90	1,97	1,83	2,15	1,81	1,80	2,12	2,10	1,56	2,16	1,5	1,53
	1,09	1,22	0,96	1,14	1,06	1,10	1,16	1,15	0,78	1,34	0,54	0,83
Write off	1,99	2,09	1,90	1,95	2,00	2,28	1,51	2,25	1,88	1,80	1,8	2,04
	1,01	1,10	0,92	1,08	1	1,07	0,87	1,16	0,80	0,93	1,09	0,87
Total responses	244	130	114	72	172	132	63	86	47	48	8	32
<b>Post Covid-19</b>												
IPO	2,9	2,61	3,12	3,07	2,84	2,78	2,83	2,63	2,71	3,15	2,8	3,37
	1,30	1,39	1,18	1,24	1,32	1,30	1,32	1,23	1,30	1,51	0,83	1,24
Sale to an industrial player	3,99	3,94	4,03	4	3,98	3,86	4,21	4,05	3,82	4,10	4	4,17
	1,03	1,13	0,91	1,05	1,02	1,14	0,86	0,94	1,11	1,11	0,63	0,98
Sale to PE	3	2,83	3,15	3,05	2,97	2,70	3,40	2,92	2,78	3,32	3,16	2,18
	1,32	1,37	1,25	1,34	1,31	1,26	1,28	1,28	1,40	1,37	1,16	1,29
Management buyout	2,02	2,01	2,02	2,19	1,95	1,81	2,25	2,19	1,78	2,08	1,5	1,46
	1,20	1,23	1,17	1,33	1,14	1,13	1,31	1,22	1,20	1,38	0,54	0,83
Write off	2,12	2,23	2,02	2,37	2,04	2,4	1,66	2,35	1,81	2,24	2	1,95
	1,12	1,20	1,03	1,25	1,06	1,19	0,99	1,21	0,98	1,18	1,15	1,06
Total responses	244	130	114	72	172	132	63	86	47	48	8	32

(1st row: N, 2nd row: %)

In addition to the decision regarding the type of exit route, venture capitalists also need to make a decision in terms of right timing to exit an investments. For this reason the respondents in the sample were asked to assess the impact of Covid-19 on their exit's timing decisions. Overall, more than half of the investors (56%) stated that Covid-19 did not affected their timing decisions, despite a not so little fraction (40%) of respondents claimed that the pandemic indeed had a impact. At subsample level, results displayed in Table 33 report that the pandemic affected timing decisions of big investors more than small ones, social investors more than traditional ones, late-stage investors more than early-stage investors, investors of the sample "Rest of the world" more than those in the sample "Europe" and "North America", healthcare investors more than IT investors.

**Table 33.** Impact of Covid-19 on exit's timing decisions.

Postponed exits	All	Fund size		Type of VC		Stage		Geography			Industry	
		Small	Big	Soc.	Trad.	Early	Late	Eur.	N.A	Rest	IT	H
No	137	77	60	35	102	84	27	50	31	16	4	20
	56,15	59,23	52,63	48,61	59,30	63,64	42,86	58,14	65,96	33,33	50,00	62,50
Yes	96	47	49	34	62	39	35	32	13	30	2	10
	39,34	36,15	42,98	47,22	36,05	29,55	55,56	37,21	27,66	62,50	25,00	31,25
Total responses	244	130	114	72	172	132	63	86	47	48	8	32

(1st row: N, 2nd row: %)

## 5.8 Syndication

In the context of syndicated investing, many parties join forces in an investment to provide the target business with physical and intangible resources like expertise and consulting, which it may need for its growth, in addition to the monetary amount paid out as part of the transaction. Moreover, in a syndicated investment, the due diligence expenses for valuing the business, structuring the deal, and determining shareholding fees are shared by all investors.

Since venture capitalists enjoy several advantages when they engage in a syndicated investment, the percentage of syndicated investments before and after Covid-19 outbreak can be a meaningful KPI to assess the impact of the pandemic on Venture Capital investment practices. Results showed in Table 34 shows that before Covid-19 outbreak, at overall sample level, syndicated investments accounted for slightly more than half (55.78%) of the total investments for VCs on average. At subsample level, there is some variance across subsamples: it seems that big investors used to engage in syndicated investments more than small investors, traditional investors more than social investors, early-stage investors more than late-stage investors, IT investors more than healthcare investors, investors targeting Europe and North America more than investors targeting other geographies. The outbreak of the pandemic resulted in a slight increase of the percentage of syndicated investments, which increased on average from 55,78% to 57,53% at overall sample. Such small increase can be found also at subsample level for all investors. The categories of investors that seems to have experienced the biggest

percentage increase in syndicated investments are small investors and those targeting Europe as a geographic area.

**Table 34.** Average percentage of syndicated investments.

	All	Fund size		Type of VC		Stage		Geography			Industry	
		Small	Big	Soc.	Trad.	Early	Late	Eur.	N.A	Rest	IT	H
<b>Pre Covid-19</b>												
% of syndicated investments	55.78	51.91	60.2	48.35	58.93	62.15	33.94	58.05	62.45	34.53	90	80.17
	38.04	38.18	37.58	42.22	35.81	36.12	35.35	36.38	39.23	36.80	22.36	28.07
Total responses	244	130	114	72	172	132	63	86	47	48	8	32
<b>Post Covid-19</b>												
% of syndicated investments	57.53	54.37	61.15	49.47	60.95	63.87	35.43	60.92	63.40	36.86	90	84.46
	38.31	39.58	36.66	41.45	36.50	36.65	35.05	36.28	40.23	37.75	22.36	25.50
Total responses	244	130	114	72	172	132	63	86	47	48	8	32

(1<sup>st</sup> row: mean, 2<sup>nd</sup> row: S.D.)

The analysis now aims at investigating which are the most important factors that venture capitalists usually take into consideration when choosing to syndicate a round. The results presented in Table 35 show that the most important factors for VCs before Covid-19 outbreak used to be *complementary expertise* (which reached 3.81 points out of 5 at overall sample), *capital constraints* (3.36), *risk sharing* (3.33) and *desire to be invited to future rounds* (3.12). There is some variance across subsamples: *complementary expertise* seem to be more important for early-stage investors than for late-stage investors and *capital constraints* seem to be more important to late-stage investors than early-stage. After Covid-19 outbreak the order of average importance of the different factors does not seem to change, even if the average amounts of all the items seem to have slightly increased. The most important factors remain, in order, *complementary expertise* (3.98), *capital constraints* (3.5), *risk sharing* (3.46) and *desire to be invited to future rounds* (3.21). At subsample level the same variances that were present in the pre-Covid scenario remained. In addition to those previously mentioned, *improve negotiation power and reduce agency costs with entrepreneurs* seem to be less important for investors targeting Europe and North America than for those targeting other geographies. The same applies for the factor *better manage investment targets where uncertainty dominates*.

**Table 35.** Most important factors based on which VCs choose to syndicate a round.

Factors	All	Fund size		Type of VC		Stage		Geography			Industry	
		Small	Big	Soc.	Trad.	Early	Late	Eur.	N.A	Rest	IT	H
<b>Pre Covid-19</b>												
Capital constraints	3.36	3.43	3.29	3.30	3.39	3.27	3.71	3.5	3.35	3.364	3.2	3.73
	1.16	1.16	1.15	1.12	1.18	1.13	1.22	1.04	1.20	1.08	0.83	0.96
Complementary expertise	3.81	3.83	3.8	3.87	3.79	3.92	3.51	3.85	3.85	3.88	4	4.11
	1.11	1.11	1.12	1.11	1.11	1.12	1.17	0.97	1.21	1.14	0.70	0.89
Desire to be invited to future rounds	3.12	3.06	3.18	3.09	3.13	3.18	3.16	3.08	3.17	3.13	3.6	3.48
	1.27	1.31	1.23	1.30	1.26	1.27	1.34	1.26	1.14	1.35	0.89	1.15
Desire to increase reputation	2.91	2.93	2.88	2.90	2.91	2.95	3.09	2.82	2.81	3.17	3	3.26
	1.26	1.25	1.28	1.28	1.26	1.19	1.35	1.31	1.14	1.36	1.22	1.21
Gain a platform for organizational learning	2.38	2.42	2.34	2.73	2.23	2.33	2.47	2.33	2.25	2.64	2.5	2.5
	1.16	1.22	1.13	1.13	1.15	1.12	1.20	1.15	1.22	1.25	0.57	1.25
Risk sharing	3.33	3.30	3.36	3.44	3.28	3.35	3.27	3.31	3.30	3.42	3.4	3.76
	1.22	1.27	1.18	1.14	1.26	1.30	1.02	1.24	1.14	1.25	1.14	1.42
Increase deal flow	2.93	2.90	2.96	3.08	2.88	2.92	2.77	2.8	2.93	3.17	3.2	3.29
	1.20	1.22	1.19	1.24	1.19	1.18	1.30	1.29	1.02	1.38	1.64	1.08
Improve negotiation power and reduce agency costs with entrepreneurs	2.64	2.59	2.71	2.848	2.577	2.536	2.833	2.281	2.6	3.214	2.792	3.75
	1.23	1.27	1.19	1.21	1.24	1.14	1.37	1.18	1.03	1.47	1.06	0.95
Better manage investment targets where uncertainty dominates	2.90	2.92	2.87	2.98	2.87	2.92	2.73	2.74	2.79	3.24	3.2	3.23
	1.19	1.27	1.11	1.19	1.19	1.18	1.27	1.27	1.27	1.09	1.30	1.17
Total responses	244	130	114	72	172	132	63	86	47	48	8	32
<b>Post Covid-19</b>												
Capital constraints	3.5	3.52	3.47	3.53	3.48	3.39	3.78	3.55	3.52	3.51	3.4	4
	1.16	1.15	1.17	1.09	1.19	1.15	1.13	1.11	1.13	1.00	0.54	0.95
Complementary expertise	3.98	4	3.958	4.10	3.92	4.06	3.68	3.89	4.05	4.15	4	4.29
	1.05	1.03	1.08	0.98	1.08	1.06	1.14	0.98	1.13	0.90	0.70	0.72
Desire to be invited to future rounds	3.21	3.22	3.21	3.28	3.18	3.26	3.26	3.17	3.14	3.37	3.6	3.63
	1.38	1.40	1.37	1.39	1.38	1.36	1.46	1.35	1.30	1.37	0.89	1.30
Desire to increase reputation	2.95	3.03	2.87	2.98	2.94	2.99	3.19	2.86	2.71	3.32	3	3.38
	1.32	1.29	1.35	1.36	1.31	1.25	1.43	1.35	1.19	1.46	1.22	1.38
Gain a platform for organizational learning	2.38	2.41	2.34	2.75	2.23	2.33	2.36	2.36	2	2.64	2.75	2.5
	1.17	1.26	1.07	1.10	1.17	1.13	1.19	1.18	1.17	1.19	0.95	1.25
Risk sharing	3.46	3.48	3.44	3.63	3.38	3.43	3.48	3.45	3.38	3.72	3.4	3.84
	1.27	1.33	1.21	1.18	1.31	1.32	1.12	1.27	1.22	1.32	1.14	1.37
Increase deal flow	3.03	3.04	3.02	3.25	2.94	3.02	2.93	2.82	3	3.41	3.2	3.33
	1.26	1.27	1.26	1.30	1.24	1.23	1.40	1.30	1.06	1.42	1.64	1.09
Improve negotiation power and reduce agency costs with entrepreneurs	2.71	2.68	2.68	3.04	2.6	2.61	2.88	2.29	2.51	3.51	3.5	2.8
	1.34	1.38	1.38	1.33	1.32	1.23	1.53	1.28	1.05	1.55	1.29	1.22
Better manage investment targets where uncertainty dominates	3.07	3.06	3.08	3.20	3.02	3.10	2.92	2.83	2.97	3.63	3.2	3.26
	1.27	1.34	1.20	1.29	1.26	1.28	1.40	1.31	1.28	1.27	1.30	1.21
Total responses	244	130	114	72	172	132	63	86	47	48	8	32

(1<sup>st</sup> row: mean, 2<sup>nd</sup> row: S.D.)



Lastly, the respondents of the sample were asked to assign a degree of importance to the factors they keep into consideration when choosing a syndicate partner or coinvestor. As shown in Table 36, on average, the factors that venture capitalists consider as more important are, in both pre and post Covid-19 scenarios, *industry sector expertise* (4.06), *reputation* (4.02) and *track record or partner* (3.89). After Covid-19 outbreak the average importance of all factors seem to be increased. In both scenarios there is no significant variance at subsample level except for the factor *geographic location*, which seem to be less important for investors targeting North America than those targeting Europe or other geographies.

**Table 36.** Most important factors based on which venture capitalists usually choose a syndicate partner or coinvestor.

Factors	All	Fund size		Type of VC		Stage		Geography			Industry	
		Small	Big	Soc.	Trad.	Early	Late	Eur.	N.A	Rest	IT	H
<b>Pre Covid-19</b>												
Capital availability/size	3.69	3.65	3.74	3.71	3.68	3.62	3.91	3.64	3.48	3.83	3.2	4.25
	0.99	1.01	0.97	0.97	1.00	0.97	0.97	0.94	1.12	0.92	1.09	0.81
Geographic location	3.08	3.01	3.15	3.22	3.02	3.06	3.07	3.23	2.35	3.35	4	3.19
	1.16	1.15	1.17	1.12	1.17	1.19	1.27	1.07	1.08	1.22	0.81	1.05
Industry sector expertise	4.06	4.04	4.08	4.10	4.04	4.14	3.72	4.18	3.97	3.97	4.6	4.74
	0.96	0.94	0.98	0.84	1.00	0.85	1.17	0.91	1.02	0.98	0.54	0.44
Mutual social connection	2.90	2.92	2.89	2.79	2.94	2.87	2.91	2.84	2.75	3.15	2.8	2.88
	1.24	1.27	1.20	1.30	1.21	1.25	1.36	1.30	1.15	1.29	0.44	1.33
Past successes together	3.60	3.54	3.66	3.43	3.66	3.61	3.58	3.60	3.61	3.66	4.4	3.74
	1.13	1.18	1.08	1.17	1.12	1.17	1.07	1.04	1.29	1.15	0.54	1.05
Reputation	4.02	4	4.04	4.13	3.97	3.99	4.1	4.14	3.92	4.14	4.8	4.25
	1.01	1.00	1.02	0.97	1.02	1.00	0.86	0.90	1.14	0.91	0.44	1.09
Track record of partner	3.89	3.95	3.83	3.82	3.92	3.95	3.87	3.97	3.66	3.97	4.4	4.14
	0.98	0.95	1.01	0.97	0.99	0.94	1.07	0.99	1.08	0.90	0.54	0.90
Total responses	244	130	114	72	172	132	63	86	47	48	8	32
<b>Post Covid-19</b>												
Capital availability/size	3.81	3.74	3.89	3.88	3.78	3.71	4.02	3.72	3.46	3.94	3.2	4.40
	1.01	1.00	1.02	0.97	1.03	0.99	1.05	0.96	1.23	0.84	1.09	0.74
Geographic location	3.08	3.24	2.93	3.20	3.03	2.97	3.24	3.20	2.29	3.33	4	3.23
	1.24	1.25	1.22	1.21	1.25	1.27	1.26	1.11	1.15	1.30	0.81	1.10
Industry sector expertise	4.19	4.15	4.23	4.32	4.14	4.23	3.89	4.21	4.02	4.25	4.6	4.81
	0.91	0.90	0.93	0.75	0.97	0.82	1.18	0.91	1.00	0.95	0.54	0.39
Mutual social connection	2.96	3.01	2.92	2.90	2.99	2.95	2.88	2.94	2.71	3.12	2.8	3
	1.25	1.28	1.22	1.30	1.24	1.25	1.351	1.36	1.12	1.28	0.44	1.38
Past successes together	3.66	3.62	3.71	3.60	3.69	3.70	3.60	3.69	3.63	3.66	4.4	3.88
	1.14	1.19	1.10	1.18	1.13	1.15	1.11	1.07	1.22	1.18	0.54	1.08

Reputation	4.10	4.14	4.07	4.26	4.04	4.10	4.14	4.17	4	4.27	4.8	4.37
	1.00	0.96	1.04	0.91	1.03	0.98	0.98	0.97	1.11	0.84	0.44	1.00
Track record of partner	3.98	4.03	3.92	3.96	3.99	4.04	3.91	4.01	3.76	4.14	4.4	4.22
	0.96	0.92	1.00	0.98	0.95	0.91	1.06	1.00	1.01	0.84	0.54	0.80
Total responses	244	130	114	72	172	132	63	86	47	48	8	32

(1<sup>st</sup> row: mean, 2<sup>nd</sup> row: S.D.)

## 5.9 Impact on portfolio companies

Up until this point this study focused on the analysis of impact that Covid-19 had on venture capital investment practices, without investigating what were the effects on the portfolio of venture capital funds. For completeness in this paragraph is presented a summary of the impact on the portfolio of the investors in the sample. As shown in Table 37, the percentage of companies severely damaged by Covid-19 is roughly 8%, more than half of the companies were not affected or positively affected (60.5%), and roughly 30 % were negatively affected but not in critical conditions. No remarkable differences are registered across subsamples.

**Table 37.** Covid-19 impact on portfolio companies.

Impact	All	Fund size		Type of VC		Stage		Geography			Industry	
		Small	Big	Soc.	Trad.	Early	Late	Eur.	N.A	Rest	IT	H
% of companies positively affected or unaffected	60.50	57.61	63.80	55.2	62.75	58.54	63.98	56.36	65.85	54.76	66	47.10
	26.38	28.85	22.93	32.46	23.08	26.45	26.72	27.54	25.21	28.61	33.61	29.56
% of companies negatively affected but not in critical condition	31.13	33.32	28.63	35.13	29.45	32.24	28.71	34.77	26.73	35.83	30	46.35
	23.40	25.36	20.80	27.61	21.27	24.34	20.49	25.30	22.12	24.05	34.64	31.25
% of companies severely negatively affected or in critical condition	8.12	8.63	7.55	8.93	7.79	9.20	6.28	8.24	7.40	9.39	4	6.53
	10.16	11.56	8.31	12.82	8.84	10.86	8.90	11.67	9.36	10.13	31.25	10.02
Total	244	130	114	72	172	132	63	86	47	48	8	32
	100	100	100	100	100	100	100	100	100	100	100	100

(1<sup>st</sup> row: mean, 2<sup>nd</sup> row: S.D.)

## 6. CONCLUSIONS

Approximately one month after March 11<sup>th</sup> 2020, the day Covid-19 was officially declared a pandemic by the World Health Organization (WHO), the European venture capital sector saw a significant drop in the number of investments, reaching a decrease of 13.6% in the number of new deals. On the other hand, a corresponding decline in the overall volume of new venture capital investments is not registered. Therefore, despite venture capital firms completed fewer transactions, those that invested, on average, provided larger financing (approximately 19.3 % more capital).

The pandemic did not have a disproportionate impact on particular types of venture capital funding. There is little variation across various sectors of the economy, phases of venture capital investment, ages of invested companies, or other types of breakdowns. However, there are a few notable outliers, among which the healthcare sector, an obvious “winner” in terms of new deals, since several venture capital firms recognized new possibilities or chose to continue funding established projects in the healthcare sector.

In terms of effects caused by the application of lockdown measures, after 8 weeks from the announcement of implementation of such restrictions, the number of deals signed by VC firms in lockdown areas was 13% lower than the number of transactions done by investors in regions where mobility was not restricted. After the ninth post-lockdown week, the gap widens to approximately 20%, but it begins to narrow again after the tenth post-lockdown week. More than two and a half months after the implementation of lockdowns, the change in activity of venture capital firms in restricted areas is statistically indistinguishable from the change in activity of VC firms in unrestricted regions.

As the literature reports, as the number of Covid-19 cases grows, venture capitalists are less inclined to invest in seed-stage companies and are more willing to fund late-stage companies. Moreover, they become less interested in investing in travel-related businesses and are more inclined to back biotech companies. Venture capital investors are also less inclined to invest in international companies and are more likely to syndicate an investment (Bellavitis et al., 2021).

In the present study, the design of the survey in pre and post Covid-19 scenarios provided the means to perform a readily accessible benchmark between the two contexts. The results of this study show that the expected effect of Covid-19 on the venture capital

industry seem to be much less than the projected impact on many other sectors of the economy. Specially in terms of the impact on investment practices, no remarkable impacts are reported by the venture capitals who took part in the survey. Only a small portion (10%) of the investors claimed that they experienced a significant impact on their activities. At subsample level, small investors were more impacted than big investors, social funds more than traditional funds, early-stage investors more than late-stage investors, and investors targeting geographic areas which not included Europe and North America more than investors targeting Europe or North America.

The time needed to close deals did not increase because of the pandemic, but almost the totality of investors who used to have a cross-border investment focus before Covid-19 outbreak reported that reduced their cross-border investments in favour of more domestic ones.

The biggest difficulty that venture capitalists seem to have encounter in the new context is evaluating deals, whereas in general no big changes were registered in the other investment phases of the deal funnel.

Regarding *deal origination*, Covid-19 did not change the way the venture capitalists in the sample source investments, since no particular increase or decrease of importance for any type of source is registered.

Regarding *deal selection*, investors did not significantly change the weight of the criteria they take into consideration to screen investments, except for a slight increase of importance of the criterion “*favourable economic environment*” for investors who target geographic areas other than Europe and the United States. In such context with a new type of uncertainty being introduced by the pandemic, only a small portion of venture capitalists, roughly 15%, reported to have increased the likelihood to make gut decisions when selecting investments.

Despite investors claim *deal evaluation* is the most impacted phase of the investment process, no significant variance is spotted in terms of behaviours of VCs. After Covid-19 outbreak investors kept on using the same financial metrics they were adopting before the pandemic, anticipated exit remained the most important factor taken into consideration when evaluating deals, and the pandemic did not have a significant effect on the target IRR of VC funds. In terms of adjustments in valuations, almost half of the investors in the sample (47%) claimed that made adjustments in cash flow projections. Moreover,

embryonic companies are the ones for which the investors in the sample made more adjustments.

Regarding *deal structuring*, the most impacted activity results to be due diligence. The findings of this study seem not to confirm the hypothesis that venture capitalists gained negotiation power over entrepreneurs with Covid-19 outbreak. Therefore, contract terms did not result to be more investor-friendly than how they used to be before the pandemic.

Regarding *post-investment value-added activities*, connecting with investors and providing help to reach financial resources are the two types of value-added for which a greater increase of importance between pre and post Covid-19 outbreak was registered. This can find explanation in the fact that in such context where the crisis first started as a sanitary crisis but then escalated into an economic crisis and embraced many different spheres, one of the biggest difficulties entrepreneurs might encounter is finding financial resources to grow their businesses. Lastly, despite travel restrictions and the difficulties that the pandemic has entailed, the results of this research show that investors increased the frequency with which they interact with the management of portfolio companies.

Regarding *exit* decisions, a not so little fraction (40%) of respondents claimed that the pandemic had an impact on timing decisions. No significant difference is instead reported regarding the frequency with which VCs experienced different types of exit routes before and after the pandemic.

Overall, we can conclude that the pessimistic expectations of the impact of Covid-19 on venture capital industry did not materialize.

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## APPENDIX

# VENTURE CAPITAL AND INVESTMENT PRACTICES AT COVID-19 TIME

## Survey Flow

Standard: INTRODUCTION (1 Question)

Block: SECTION A: PERSONAL INFORMATION (9 Questions)

Standard: SECTION B: TYPE OF VENTURE CAPITAL, CHARACTERISTICS AND MODUS OPERANDI (12 Questions)

Standard: SECTION C: INVESTMENT PRACTICES AND COVID CRISIS (39 Questions)

Page Break

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## Start of Block: INTRODUCTION

### 0 VENTURE CAPITAL AND INVESTMENT PRACTICES AT COVID-19 TIME

Thank you for helping Politecnico di Torino and Politecnico di Milano (Italy) learn about venture capital managerial practices and the impact of the COVID crisis on the investment strategies of venture capital funds. Your response will help us to guide academic research and to learn best practices in the venture capital market to inform policy makers and the public.

This survey is designed to take around 15 minutes. Data will be treated in the strictest confidence and your answers will only be reported at the aggregate level for non-commercial research purposes with other individuals taking part in this survey. If you provide an email address, we will send you an overview of elaborated data on survey respondents.

Thank you!

Politecnico di Torino and Politecnico di Milano research teams (Bureau of Entrepreneurial Finance) Prof. Elisa Ughetto (Politecnico di Torino) Prof. Annalisa Croce and Prof. Vincenzo Buttice (Politecnico di Milano)

## End of Block: INTRODUCTION

---

## Start of Block: SECTION A: PERSONAL INFORMATION

### A0 SECTION A: PERSONAL INFORMATION



A1 Name and surname

---



A2 Preferential e-mail address

---

A3 Year of birth

▼ 1935 (8) ... 2005 (80)

---

A4 Gender

☐ Male (1)

☐ Female (2)

☐ Prefer not to say (3)

☐ Other (4)

---

A5 Nationality

▼ Afghan (1) ... Zimbabwean (199)

---

A6 Where are you based?

▼ Afghanistan (1) ... Zimbabwe (258)

---

A7 Do you currently work on behalf of either an Institutional (Independent) venture capital fund or a Captive venture capital vehicle (es. Corporate venture capital, Bank-affiliated venture capital, Governmental venture capital)?

Select 1 answer only.

- ☐ Yes, Institutional (Independent) venture capital (1)
- ☐ Yes, Captive venture capital vehicle (e.g. corporate VC, bank-affiliated VC, governmental VC) (2)
- ☐ No (3)

---

*Display This Question:*

*If A7 = 3*

A8 Who do you invest on behalf of? Choose the one that applies the most.

- ☐ Private Equity fund (1)
- ☐ Fund of fund (4)
- ☐ Family office (5)
- ☐ I am an individual Angel Investor (2)
- ☐ Other (3) \_\_\_\_\_

*Skip To: End of Survey If A8 = 4*

*Skip To: End of Survey If A8 = 5*

*Skip To: End of Survey If A8 = 2*

*Skip To: End of Survey If A8 = 3*

*Skip To: End of Survey If Condition: Other Is Not Empty. Skip To: End of Survey.*

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Page Break

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**B0 SECTION B: TYPE OF VENTURE CAPITAL, CHARACTERISTICS AND MODUS OPERANDI**

The following set of questions ask about your current fund. If you are associated with multiple funds that make venture capital style investments, please provide your answers in reference to the fund you are most closely associated with. Please answer the following questions in reference to the context BEFORE COVID-19 outbreak.

-----

B1 What is the name of the Venture Capital fund you work for?

\_\_\_\_\_

-----

B2 What is your job title?

*Select 1 answer only.*

- ☐ Managing Partner (1)
  - ☐ General Partner (2)
  - ☐ Senior Partner (3)
  - ☐ Partner / Venture Partner (4)
  - ☐ Principal / Associate (5)
  - ☐ Other (6) \_\_\_\_\_
- 



B3 How many people work, including you, in the managing team of the VC fund you work for (with roles: partners, associates, venture partners)?

---



B4 What is your fund's vintage year?

---



B5 What is the approximate total committed capital of your fund?

*Please provide your answer in million of dollars (M\$).*

---



B6 How many companies, approximately, do you have in your fund's portfolio?

---

B7 Can your fund be defined as a social impact venture capital fund (i.e. a fund that deliberately invests in businesses that are expected to generate economic, environmental and social value)?

*Select 1 answer only.*

☐ Yes (1)

☐ No (2)

---

B8 Does your fund have a

*Select 1 answer only.*

- ☐ Cross-border investment focus (1)
- ☐ Domestic investment focus (2)
- ☐ Both (3)

---

*Display This Question:*

*If A7 = 1*

B9 Who are the most relevant limited partners of your fund?

*Select all that apply.*

- ☐ Banks (1)
- ☐ Corporate investors (2)
- ☐ Governments and other public bodies (3)
- ☐ Individuals (4)
- ☐ Insurance companies (5)
- ☐ Investment funds (FoF) (6)
- ☐ Pension funds (7)
- ☐ Other (8) \_\_\_\_\_

*Display This Question:*

*If A7 = 2*

B10 Do you work on behalf of?

*Select 1 answer only.*

- ☐ a Bank-controlled venture capital fund (1)
  - ☐ a Governmental venture capital fund (2)
  - ☐ a Corporate venture capital fund (3)
- 

*Display This Question:*

*If B10 = 3*

B11 In what industries does your parent corporation operate?

*Select all that apply.*

- ☐ Telecommunications, IT Infrastructure and Cybersecurity (1)
- ☐ Internet & Mobile services (2)
- ☐ Data, Software & services (3)
- ☐ Media and Entertainment (4)
- ☐ Semiconductors (5)
- ☐ Industrial Technology and Manufacturing (6)
- ☐ Electronics/instrumentation (7)
- ☐ Retailing/distribution (8)
- ☐ Consumer Products and Services (9)
- ☐ Healthcare (10)
- ☐ Energy and Environment (11)
- ☐ Biotechnology (12)
- ☐ Chemicals and Pharmaceuticals (13)
- ☐ Microfinance/Insurance & Financial Services (14)
- ☐ Fintech (15)
- ☐ Agriculture (16)



☐

Education (17)

☐

Other (18) \_\_\_\_\_

-----  
Page Break \_\_\_\_\_

**C0 SECTION C – INVESTMENT PRACTICES AND COVID CRISIS**

Please answer the following questions in reference to the context AFTER the COVID-19 outbreak.

**VC INVESTMENT PROCESS**

---

C1 **After** the COVID-19 outbreak, has your VC fund modified its investment strategies?

*Select 1 answer only.*

- ☐ Not at all (1)
  - ☐ Moderately (2)
  - ☐ Significantly (3)
- 

C2 **After** the COVID-19 outbreak, has the overall time required to complete a deal changed?

*Select 1 answer only.*

- ☐ Yes, it increased (1)
  - ☐ Yes, it decreased (2)
  - ☐ No, it did not change (3)
- 

C3 Is there any stage of the deal funnel that has been remarkably impacted **after** the COVID-19 outbreak (in terms of time/effort required/complexity, etc)? Please select, for each stage, if the overall effort required is increased / remained unchanged / decreased.

	Significantly decreased (2)	Moderately decreased (3)	No change (4)	Moderately increased (5)	Significantly increased (6)
Deal sourcing/origination (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deal screening/selection (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Due diligence (evaluation) (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deal structuring (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Post-investment activity (monitoring, support, follow-ons) (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deal closing/exit (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Display This Question:

If B8 = 1

Or B8 = 3

C4 **After** the COVID-19 outbreak, has your VC fund reduced cross-border venture capital investment in favour of a more domestic focus?

Select 1 answer only.

- ☐ Yes (1)
- ☐ No (2)
- ☐ Not applicable (3)

C5 **Before** COVID-19 outbreak, what stage of company did you use to target?

*Select all that apply.*

- ☐ All stages (1)
  - ☐ Seed Stage (2)
  - ☐ Early Stage (3)
  - ☐ Mid Stage (4)
  - ☐ Late Stage / Growth Equity (5)
- 

C6 **After** COVID-19 outbreak, what stage do you currently target?

*Select all that apply.*

- ☐ All stages (1)
  - ☐ Seed Stage (2)
  - ☐ Early Stage (3)
  - ☐ Mid Stage (4)
  - ☐ Late Stage / Growth Equity (5)
-

C7 **Before** COVID-19 outbreak, what industries did you use to target?

*Select all that apply.*

- ☐ I did not use to target a particular industry (1)
- ☐ Telecommunications, IT Infrastructure and Cybersecurity (2)
- ☐ Internet & Mobile services (3)
- ☐ Data, Software & services (4)
- ☐ Media and Entertainment (5)
- ☐ Semiconductors (6)
- ☐ Industrial Technology and Manufacturing (7)
- ☐ Electronics/instrumentation (8)
- ☐ Retailing/distribution (9)
- ☐ Consumer Products and Services (10)
- ☐ Healthcare (11)
- ☐ Energy and Environment (12)
- ☐ Biotechnology (13)
- ☐ Chemicals and Pharmaceuticals (14)
- ☐ Microfinance/Insurance & Financial Services (15)
- ☐ Fintech (16)

☐ Agriculture (17)

☐ Education (18)

☐ Other (19)

---

C8 **After** COVID-19 outbreak, what industries do you currently target?

*Select all that apply.*

- ☐ I don't target a particular industry (1)
- ☐ Telecommunications, IT Infrastructure and Cybersecurity (2)
- ☐ Internet & Mobile services (3)
- ☐ Data, Software & services (4)
- ☐ Media and Entertainment (5)
- ☐ Semiconductors (6)
- ☐ Industrial Technology and Manufacturing (7)
- ☐ Electronics/instrumentation (8)
- ☐ Retailing/distribution (9)
- ☐ Consumer Products and Services (10)
- ☐ Healthcare (11)
- ☐ Energy and Environment (12)
- ☐ Biotechnology (13)
- ☐ Chemicals and Pharmaceuticals (14)
- ☐ Microfinance/Insurance & Financial Services (15)
- ☐ Fintech (16)

- ☐ Agriculture (17)
  - ☐ Education (18)
  - ☐ Other (19) \_\_\_\_\_
- 

C9 **Before** COVID-19 outbreak, what geographies did you use to target?

*Select all that apply.*

- ☐ I did not use to target a particular area (1)
  - ☐ Europe (2)
  - ☐ North America (3)
  - ☐ Central and South America (4)
  - ☐ Asia (5)
  - ☐ Africa (6)
  - ☐ Oceania (7)
-



C10 **After** COVID-19 outbreak, what geographies do you currently target?

*Select all that apply.*

- ☐ I don't target a particular area (1)
- ☐ Europe (2)
- ☐ North America (3)
- ☐ Central and South America (4)
- ☐ Asia (5)
- ☐ Africa (6)
- ☐ Oceania (7)

---

Page Break

## C11.0 DEAL ORIGATION AND SELECTION

---

C11 Here are presented the main sources through which deals are usually generated. Please assign a value from 1 to 5 (0 = not applicable) to each of the following factors according to their relevance for you in the **pre** COVID-19 scenario and in the **post** COVID-19 scenario.

*(0 = not applicable, 1 = low importance, ..., 5 = high importance)*

	Pre COVID-19 outbreak						Post COVID-19 outbreak					
	0 (1)	1 (2)	2 (3)	3 (4)	4 (5)	5 (6)	0 (1)	1 (2)	2 (3)	3 (4)	4 (5)	5 (6)
Management (1)												
Limited Partners (2)												
Other VC firms or angels (3)												
Accelerators/Incubators/Technology Parks (4)												
Portfolio companies (5)												
Proactive self-generation (6)												
Quantitative sourcing (7)												
VC professional network (8)												
Controlling corporation or bank (9)												
Governmental body (10)												

---

C12 Please assign a value from 1 to 5 (0 = not applicable) to each of the following factors according to their relevance in deciding whether to invest, in the **pre** COVID-19 scenario and in the **post** COVID-19 scenario.

(0 = not applicable, 1 = low importance, ..., 5 = high importance)

	Pre COVID-19 outbreak						Post COVID-19 outbreak					
	0 (1)	1 (2)	2 (3)	3 (4)	4 (5)	5 (6)	0 (1)	1 (2)	2 (3)	3 (4)	4 (5)	5 (6)
Ability of your fund to add value (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Business model/competitive position (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gut feel (e.g. personal instinct) (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fit with fund (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Industry (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Favourable economic environment (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Total addressable market (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Innovative and scalable product/technology (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public financial incentives (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Venture's management team (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

C13 Compared to the pre COVID-19 period, which is now the likelihood that you will make a “gut decision” (based on intuition and gut feelings) to invest when meeting a company's management team for the first time?

*Select one answer only.*

- ☐ More likely (1)
- ☐ Less likely (2)
- ☐ Not changed (3)

---

Page Break

## C14.0 VALUATION

---

C14 Which financial metrics, if any, did you use to analyze investments in the pre COVID-19 scenario? And which ones have you been using in the post COVID-19 scenario?

*Select all that apply.*

	Financial metrics						
	None (1)	Multiple of sales/EBITDA (2)	Cash-on-cash multiple (3)	Hurdle rate (4)	IRR (5)	NPV (6)	Other (7)
Pre COVID-19 outbreak (1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Post COVID-19 outbreak (2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

---

C15 **Before** COVID-19 outbreak, what was, usually, your target IRR for your fund?

*Select one answer only.*

- ☐ (1)
- ☐ 10-19% (2)
- ☐ 20-29% (3)
- ☐ 30-39% (4)
- ☐ 40-49% (5)
- ☐ >50% (6)
- ☐ Not available (7)

---

*Display This Question:*

*If B7 = 1*

C16 **Before** COVID-19 outbreak, did you target:

*Select one answer only.*

- ☐ risk-adjusted, market rates of return (1)
- ☐ below-market-rate returns (2)
- ☐ below-market-rate returns that are closer to market-rate (3)
- ☐ returns that are closer to capital preservation (4)

---

C17 **After** COVID-19 outbreak, did you change your target IRR for your fund? What is your current target IRR for your fund?

Select one answer only.

- ☐ (1)
- ☐ 10-19% (2)
- ☐ 20-29% (3)
- ☐ 30-39% (4)
- ☐ 40-49% (5)
- ☐ >50% (6)
- ☐ Not available (7)

C18 The following table lists the main factors evaluated when deciding what valuation to offer a company. Please assign a value from 1 to 5 (0 = not applicable) to each factor for both the **pre** Covid-19 scenario and the **post** Covid-19 scenario.

(0 = not applicable, 1 = low importance, ..., 5 = high importance)

	Pre Covid-19 outbreak						Post Covid-19 outbreak					
	0 (1)	1 (2)	2 (3)	3 (4)	4 (5)	5 (6)	0 (1)	1 (2)	2 (3)	3 (4)	4 (5)	5 (6)

Competitive pressure from other VCs (1)	C	C	C	C	C	C	C	C	C	C	C	C
Anticipated exit of the company (2)	C	C	C	C	C	C	C	C	C	C	C	C
Valuation of comparable investments (3)	C	C	C	C	C	C	C	C	C	C	C	C
Desired ownership fraction (4)	C	C	C	C	C	C	C	C	C	C	C	C

---



C19 How did COVID-19 impact your valuations of investments?

*Select one answer only.*

☐ > + 60% (1)

☐ + 50% (2)

☐ + 40% (3)

☐ + 30% (4)

☐ + 20% (5)

☐ + 10% (6)

☐ 0% (7)

☐ - 10% (8)

☐ - 20% (9)

☐ - 30% (10)

☐ - 40% (11)

☐ - 50% (12)

☐ < - 60% (13)

-----

C20 After COVID-19 outbreak, what kind of adjustments, if any, are made for valuations?

*Select all that apply.*

- ☐ Adjustments in cash flow projections (1)
- ☐ Adjustments in the allocation of a higher cost of capital (2)
- ☐ Adjustments related to the difficulty in finding financial resources (3)
- ☐ No adjustments (4)
- ☐ Other (5) \_\_\_\_\_
- 

C21 **After** COVID-19 outbreak, for which kind of companies have you been making more relevant adjustments in valuations?

*Select one answer only.*

- ☐ Embryonic companies (i.e. companies at a very early stage in their development that experience significant growth that exceeds the growth rate in the economy) (1)
- ☐ More mature companies (i.e. companies well established in their industry that grow at the rate of the economy at large) (2)
- ☐ Both (3)
- ☐ None (4)
- 

C22 What is your usual target gross multiple or cash-on-cash multiple for an investment?  
Please provide one answer only for both **pre** COVID-19 scenario and **post** COVID-19 scenario.

	Multiple									
	< 2x (1)	2-3 x (2)	3-4 x (3)	4-5 x (4)	5-6x (5)	6-7 x (6)	7-8 x (7)	8-9 x (8)	9-10 x (9)	> 10 x (10)

Pre  
Covid-  
19  
outbreak  
(1)



Post  
Covid-  
19  
outbreak  
(2)



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## C23.0 DEAL STRUCTURING

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C23 The following factors characterize the deal structuring. Which of these items were mostly affected by the COVID-19 outbreak (in terms of time/effort required/complexity, etc)?

*Select all that apply.*

- ☐ Not affected (1)
  - ☐ Review with partners and investment committee (6)
  - ☐ Due diligence (2)
  - ☐ Preparation of term sheets and negotiation of contractual terms (3)
  - ☐ Other (4) \_\_\_\_\_
- 

C24 In the following table are listed the main contractual features for investments. Please assign a value from 1 to 5 (0 = not applicable) to each contractual feature according to its relevance for your investments in the **pre** COVID-19 scenario and in the **post** COVID-19 scenario.

*(0 = not applicable, 1 = low importance, ..., 5 = high importance)*

	Pre COVID-19 outbreak						Post COVID-19 outbreak					
	0 (1)	1 (2)	2 (3)	3 (4)	4 (5)	5 (6)	0 (1)	1 (2)	2 (3)	3 (4)	4 (5)	5 (6)

Antidilution protection (1)	C	C	C	C	C	C	C	C	C	C	C	C
Board rights (2)	C	C	C	C	C	C	C	C	C	C	C	C
Dividends (3)	C	C	C	C	C	C	C	C	C	C	C	C
Investment amount (4)	C	C	C	C	C	C	C	C	C	C	C	C
Liquidation preference (5)	C	C	C	C	C	C	C	C	C	C	C	C
Option pool (6)	C	C	C	C	C	C	C	C	C	C	C	C
Ownership stake (7)	C	C	C	C	C	C	C	C	C	C	C	C
Participation (8)	C	C	C	C	C	C	C	C	C	C	C	C
Pro rata rights (9)	C	C	C	C	C	C	C	C	C	C	C	C
Redemption rights (10)	C	C	C	C	C	C	C	C	C	C	C	C
Valuation (11)	C	C	C	C	C	C	C	C	C	C	C	C
Vesting provision (12)	C	C	C	C	C	C	C	C	C	C	C	C
(Residual) Cash flow rights (13)	C	C	C	C	C	C	C	C	C	C	C	C

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C25 Do you think COVID-19 impact on venture capital has shifted negotiation towards either venture capitalists or entrepreneurs?

*Select one answer only.*

- ☐ Yes, venture capitalists gained negotiation power over entrepreneurs (1)
- ☐ Yes, entrepreneurs gained negotiation power over venture capitalists (2)
- ☐ No shifts in negotiation power (3)

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## C26.0 POST INVESTMENT AND EXIT

C26 On average, how frequently do you actively interact with the management of your portfolio's companies? Please provide your answers by selecting one answer only for both scenarios, **pre** COVID-19 outbreak and **post** COVID-19 outbreak.

	Frequency						
	Never (1)	Less than once a month (2)	Once a month (3)	2-3 times a month (4)	Once a week (5)	Multiple times a week (6)	Every day (7)
Pre COVID-19 outbreak (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Post COVID-19 outbreak (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

C27 In the following table are listed some of the most relevant value-added activities for portfolio's companies. Please assign a value from 1 to 5 (0 = not applicable) to each activity according to how frequently you undertake them for the companies in your portfolio for both scenarios, **pre** COVID-19 outbreak and **post** COVID-19 outbreak.

(0 = not applicable, 1 = never, ..., 5 = very frequent)

	Pre COVID-19 outbreak						Post COVID-19 outbreak					
	0 (1)	1 (2)	2 (3)	3 (4)	4 (5)	5 (6)	0 (1)	1 (2)	2 (3)	3 (4)	4 (5)	5 (6)

Provide help to companies in hiring employees (1)	C	C	C	C	C	C	C	C	C	C	C	C
Provide help to companies in hiring managers (2)	C	C	C	C	C	C	C	C	C	C	C	C
Provide help to companies in hiring board members (3)	C	C	C	C	C	C	C	C	C	C	C	C
Provide operational guidance (4)	C	C	C	C	C	C	C	C	C	C	C	C
Provide strategic guidance (5)	C	C	C	C	C	C	C	C	C	C	C	C
Connect companies with potential customers, suppliers, or strategic partners (6)	C	C	C	C	C	C	C	C	C	C	C	C
Connect companies with potential investors (7)	C	C	C	C	C	C	C	C	C	C	C	C
Help companies to reach additional	C	C	C	C	C	C	C	C	C	C	C	C



C28 In the following table are listed some types of exit. Please assign a value from 1 to 5 (0 = not applicable) to each activity according to the frequency with which you experienced them for both the pre COVID-19 scenario and post COVID -19 scenario.

(0 = not applicable, 1 = never, ..., 5 = very frequent)

	Pre COVID-19 outbreak						Post COVID-19 outbreak					
	0 (1)	1 (2)	2 (3)	3 (4)	4 (5)	5 (6)	0 (1)	1 (2)	2 (3)	3 (4)	4 (5)	5 (6)
IPO (1)	C	C	C	C	C	C	C	C	C	C	C	C
Sale to an industrial player (2)	C	C	C	C	C	C	C	C	C	C	C	C
Sale to private equity (3)	C	C	C	C	C	C	C	C	C	C	C	C
Management buyout (4)	C	C	C	C	C	C	C	C	C	C	C	C
Write off (5)	C	C	C	C	C	C	C	C	C	C	C	C

C29 Has COVID-19 impacted your exit decisions in terms of time? Have you decided to postpone some exits that were pre-scheduled?

*Select one answer only.*

☐ Yes (1)

☐ No (2)

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### C30.0 SYNDICATION

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C30 Approximately, what percentage of your investments are syndicated? Please provide your answers for both scenarios, **pre** COVID-19 outbreak and **post** COVID-19 outbreak.

☐ % of syndicated investments pre COVID-19 outbreak (1)

\_\_\_\_\_

☐ % of syndicated investments post COVID-19 outbreak (2)

\_\_\_\_\_

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C31 In the following table are listed the most important factors based on which you usually choose to syndicate a round. Please assign a value from 1 to 5 (0 = not applicable) to each of the following factors according to the importance they have for your decisions for both scenarios, **pre** COVID-19 outbreak and **post** COVID-19 outbreak.

*(0 = not applicable, 1 = low importance, ..., 5 = high importance)*

	Pre COVID-19 outbreak						Post COVID-19 outbreak					
	0	1	2	3	4	5	0	1	2	3	4	5
	(1)	(2)	(3)	(4)	(5)	(6)	(1)	(2)	(3)	(4)	(5)	(6)

Capital constraints (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Complementary expertise/access to valuable resources (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Desire to be invited to future rounds (more opportunities) (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Desire to increase reputation (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gain a platform for organizational learning (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Risk sharing (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increase deal flow (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improve negotiation power and reduce agency costs with entrepreneurs (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Better manage investment targets where uncertainty dominates (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

C32 In the following table are listed the most important factors based on which you usually choose a syndicate partner or coinvestor. Please assign a value from 1 to 5 (0 = not applicable) to each of the following factors according to the importance they have for your decisions for both scenarios, **pre** COVID-19 outbreak and **post** COVID-19 outbreak.

(0 = not applicable, 1 = low importance, ..., 5 = high importance)

	Pre COVID-19 outbreak						Post COVID-19 outbreak					
	0 (1)	1 (2)	2 (3)	3 (4)	4 (5)	5 (6)	0 (1)	1 (2)	2 (3)	3 (4)	4 (5)	5 (6)
Capital availability / size (1)	C	C	C	C	C	C	C	C	C	C	C	C
Geographic location (2)	C	C	C	C	C	C	C	C	C	C	C	C
Industry sector expertise (3)	C	C	C	C	C	C	C	C	C	C	C	C
Mutual social connection (4)	C	C	C	C	C	C	C	C	C	C	C	C
Past successes together (5)	C	C	C	C	C	C	C	C	C	C	C	C
Reputation (6)	C	C	C	C	C	C	C	C	C	C	C	C
Track record of partner (7)	C	C	C	C	C	C	C	C	C	C	C	C



**C33 After** COVID-19 outbreak, what is the impact of Covid-19 on the existing companies in your portfolio? Please assign a percentage to each of the three categories presented below, making sure that the total sum must equal 100%.

% of companies POSITIVELY AFFECTED or UNAFFECTED : \_\_\_\_\_ (1)

% of companies NEGATIVELY AFFECTED but not in critical condition : \_\_\_\_\_ (2)

% of companies SEVERELY NEGATIVELY AFFECTED or in critical condition : \_\_\_\_\_ (9)

Total : \_\_\_\_\_

**End of Block: SECTION C: INVESTMENT PRACTICES AND COVID CRISIS**

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