

Contracting on the Streets, Agency Problems in Term Sheets: A Case Study on Financial Contracts in the Swedish Venture Capital Industry

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Abstract

This paper studies how a Stockholm-based venture capital firm addresses principal-agent conflicts and other risks associated with startup investing through the design of its term sheets. We begin by providing a detailed review on the predictions of financial contract theory and proceed to assess its alignment with the term sheets in our sample. We find that the term sheets issued by our VC of study to a great extent align with the predictions of theory. However, we also discover disparities between theory and the real world. Most importantly, we find that the VC we study does not negotiate contingent control mechanisms to the extent predicted by theory, implying that the VC is less concerned with assuming control in bad states of the world than otherwise suggested.

Keywords: *Venture Capital, Term Sheet, Contract Theory*

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1. Introduction

Venture capital investments are subject to pronounced principal-agent conflicts, uncertainties associated with the company's outside environment and uncertainties related to difficulties of operational execution (Kaplan & Strömberg, 2004). If unresolved, these risks will deny some promising startups funding and inhibit them from growing into mature companies (e.g. Ackerlöf, 1970; Brennan, 1987). A large body of literature has developed theory on how contract design can solve or at least mitigate such risks and their adverse effects. These theories dictate that improvements in financial contracts should enable more promising startup companies to receive financing, scarce resources to be allocated more efficiently, and improve the conditions for entrepreneurs and VCs to succeed in building large companies (e.g. Brennan, 1987). Empirical literature has also emerged with the purpose of examining the alignment of theory with practice in the real world (e.g. Kaplan & Strömberg 2003, 2004; Bengtsson & Sensoy, 2011; Cummings & Johan, 2013). This paper seeks to contribute to literature by examining real-world financial contracts ("term sheets") issued by a Stockholm-based venture capital firm ("VC") when investing in Swedish startups.

Our paper is structured as a case study and examines three term sheets issued by an established Stockholm-based VC. A term sheet is a non-binding offer by a VC to an entrepreneur that outlines the basic terms and conditions under which the VC is willing to make an investment (Metrick & Yasuda, 2011). If the entrepreneur accepts the offer, the VC proceeds to due diligence. If the due diligence is successful, the parties sign a binding investment agreement. Whilst a term sheet is non-binding, it serves as an anchor for the negotiations on the investment agreement. We have chosen to use term sheets as the medium for our study as these contracts provide a simple yet comprehensive representation of the contractual agreements that govern the relationship between entrepreneurs and investors after a venture capital investment (Metrick & Yasuda, 2011).

Our case study is divided in two parts and begins by reviewing the predictions of theoretical literature on contract design as well as the findings of empirical work. We then move on to introduce the terms sheets in our sample, provide detailed descriptions on their various components, and examine these components through the theoretical perspective developed in the first part of our paper. As a final exercise, we assess the extent to which the term sheets in our sample comply with the predictions of theoretical literature. Whilst we find that the term sheets in our sample to a great extent align with the predictions of theory, we also identify deviations. Most significantly, we find that the VC we study does not negotiate contingent control to the extent predicted by theory,

implying that the VC is less concerned with downside protection than theory envisions. This observation could be an interesting starting point for future research.

Our paper is organized as follows. First, related literature and gaps are outlined. Second, we provide a review of theoretical and empirical literature on financial contracts relevant to venture capital. Third, we introduce our sample and provide detailed descriptions about each of their components and comment on their alignment with theoretical predictions and previous empirical findings. Fourth and final, we discuss our findings and conclude.

2. Literature Review

The principal-agent relationship and its inherent conflicts is the most well-developed aspect of contract theory. In fact, most VC-related contract theory centers on how agency conflicts affect security design, contract design, ex-ante information collection and ex-post monitoring (Kaplan & Strömberg, 2004). Theoretical literature on financial contracting in a VC-setting spans across the entire investment lifecycle, i.e. from the screening and selection of targets, to contracting, monitoring and exiting of portfolio companies (Burchardt et al, 2016). Whilst a large body of theoretical work has been completed on how contract design can address agency conflicts between VCs and their portfolio companies, empirical support is less developed (Burchardt et al, 2016). Also, an important notion about existing empirical work is its stark concentration on the U.S. venture capital industry. Despite the globalization of the venture capital industry in recent years, few empirical studies provide an international dimension that accounts for regional differences. In this context, this paper aims to serve two purposes: (i) to bridge the research gap between theory and practice by providing a detailed study of the contracts issued by an established venture capital firm, and (ii) offer an international dimension to, and contribute with a new regional extension on, existing empirical literature through focusing on the Swedish venture capital industry.

Since our paper is not theoretical in nature and because we provide a detailed review of the predictions of VC-related contract theory in the following section, we will not account for it in this section. However, given the nature and focus of our study, a more comprehensive review of related empirical literature is motivated.

Notable empirical research on financial contracts in venture capital includes the work of Kaplan and Strömberg (2003, 2004) as well as Cummings & Johan (2013). Kaplan and Strömberg (2003) study a sample of 213 investments in 119 portfolio companies by 14 VC firms. Whilst they find that the analysis of their sample to a large degree supports the predictions of principal agent

theories (e.g. Holmström, 1979) and control theories (e.g. Aghion and Bolton, 1992), they find that real world contracts are more complex than theory predicts and therefore conclude that more theoretical research on the subject is motivated. In their 2004 paper the authors pursue extended analysis on 67 portfolio investments by 11 VCs, a subset of the sample in their 2003 paper, by constructing direct measures of risk and uncertainty, rather than using indirect measures such as firm age, firm size and industry R&D intensity. By doing this, they are able to offer a more nuanced description of how VCs design contracts in response to risks and uncertainties

Cummings and Johan (2013) provide a broad study on venture capital contracts and use several different samples to analyze different aspects of contracts design. Their perhaps most relevant work relates to their analysis of 223 entrepreneurial firms financed by 35 VCs in 11 European countries in the context of security design. Important to note however is that most of their data is interview- and survey-based. Also, neither any ventures nor any VCs in their sample are Swedish. Their study provides several interesting results regarding institutional differences between Europe and the U.S., such as for example the use of convertible securities in the U.S., which is not observed to the same extent in their European sample.

Whilst the previously mentioned empirical studies differ in their scope and analysis, they both have in common that their data is increasingly outdated. The sample of Cummings & Johan (2013) stretches across the period of 1995-2002, and the sample of Kaplan and Strömberg (2003) stretches between 1996 and 1999. Neither study thus accounts for any possible changes in contract design practice after the 2008 financial crisis. Furthermore, Kaplan and Strömberg's sample with certainty also does not account for any possible changes in contract design practice after the Dot-Com Bubble of 2000, a weakness that Cummings and Johan's sample most likely shares. Given that the term sheets in our sample were all issued during 2016 (except for one, which was issued in late December of 2015), we believe that our study offers an up-to-date perspective on contract design practice.

3. Theoretical Predictions on Financial Contracts

Most financial contracting theory centers around principal-agent conflicts. These conflicts exist in essentially every contractual agreement between two or more parties and arise as a result of information asymmetry and moral hazard. More specifically, principal-agent conflicts occur when parties have different interests and information, when the agent is able to make decisions on behalf of the principal, and when the principal cannot directly ensure that the agent is acting in the principal's best interest.

In venture capital the main principal-agent relationship of focus is that between the VC/investor/principal and the entrepreneur/agent. Kaplan and Strömberg (2004) outline four generic agency problems that VCs face: (i) the concern that the entrepreneur will not work hard to maximize value after the investment is made (ii) the concern that the entrepreneur knows more about his/her ability than the VC (iii) the understanding that post-investment disagreements between the parties may arise where the VC may want to take control of the company (iv) hold-up concerns where the entrepreneur threatens to abandon the company. Most VC-related contract theory aims to address how these agency problems affect security design, contract design, ex-ante information collection and ex-post monitoring (Kaplan & Strömberg, 2004).

Because the above mentioned risks are directly related to the individual venture and the relationship between the contractual parties such risks are denoted internal risks. However, venture capital investments also involve external risks that relate to the venture's outside environment and that are equally uncertain for both parties. Examples of external risks are uncertainties regarding the future customer demand for the venture's products, the response and development of the competitive landscape, and the state and appetite of financial markets when investors seek to exit their investment. Contract theory predicts that also external risks influence the design of venture capital contracts. However, these predictions are weaker than those regarding internal risks and far less pronounced (Kaplan & Strömberg, 2004).

Finally, venture capital investments also face risks that are equally uncertain to both parties but that to some extent are under the control of the entrepreneur (Kaplan & Strömberg, 2004). These risks are commonly referred to as executions risks and are by definition neither internal nor external. The two main types of execution risks featured in venture capital investments are uncertainties relating to the difficulty of executing on the venture's strategy and developing the venture's technology.

We will now review the predictions of contract theory relating to internal, external and execution risks inherent in venture capital investments in order to provide a theoretical context in which to analyze the term sheets in our sample.

3.1 Entrepreneur Effort and Moral Hazard

The first generic agency conflict outlined by Kaplan and Strömberg, moral hazard relating to the unwillingness of entrepreneurs to maximize firm value after a venture capital investment, stems from two observations. First, that VCs face difficulties and costs in observing the entrepreneur's efforts, and second that a venture capital investment disaligns the objectives of entrepreneurs and VCs. The disalignment of objectives is rooted in the notion that a venture capital investment allows the entrepreneur to diversify risk at the expense of the investor. Prior to investment all, or at least a great portion, of the entrepreneur's future wealth is tied to the performance of the firm. But with the infusion of capital into the firm the entrepreneur is able to receive payoff, e.g. salary and dividends, in more states of the world. A venture capital investment thus alters or at least relaxes the incentives for the entrepreneur to pursue the VC's objectives, which is to maximize firm value. Contract theory assumes that VCs are sophisticated investors who are aware that their investments give rise to issues of moral hazard and predicts that they will tie the entrepreneur's compensation to performance to realign the entrepreneur's incentives with their own. Furthermore, contract theory predicts that the degree of this relationship will be positively correlated with the extent of the underlying information problem (Kaplan Strömberg, 2004).

The moral hazard problem in venture capital is intricate and not only materializes through low effort by the entrepreneur. Theoretical literature predicts that contracts are designed to not only protect VCs from negligence (low effort), but also from another type of expropriation - malice (Metrick and Yasuda, 2011). Perhaps better understood as stealing or self-dealing, malice can be defined as activities that involve indirectly transferring funds from the venture to the agent/entrepreneur, e.g. by contracting expensive services from friends or selling assets at underprice to relatives. Whilst one may reason that performance-contingent compensation schemes should mitigate also such behavior, contract theory predicts that VCs will construct contracts that include also specific protections against expropriation beyond those inherent in a performance-based compensation scheme.

Literature suggests that VCs will include separate control rights in their contracts because monetary incentive schemes are not enough to discipline managers and protect investors from

expropriation (Dewatripont and Tirole, 1994). First, VCs often receive board rights to mitigate the information gap underlying the moral hazard problem and exert influence on management decisions (Lerner, 1995). However, whilst board representation provides some degree of influence, empirical literature shows that VCs seldom receive board seat majority, implying that such actions are unable to guarantee absolute authority in enforcing certain decisions (Bengtsson & Sensoy, 2011). Therefore, as an alternative solution, VCs often include negative covenants (hereafter referred to as protective provisions) that give VCs the right to veto certain decisions. Whilst protective provisions theoretically could be related to a range of decisions, empirical research shows that protective provisions mainly concern financing decisions, the sale and acquisition of assets, the hiring of talent, compensation to executives, and capital expenditure (Bengtsson & Sensoy, 2011; Hellman 1998). Contract theory predicts that the prevalence and magnitude of VC board rights is positively correlated with the magnitude of the underlying information problem and monitoring costs (Lerner, 1995).

3.2 Entrepreneur Ability and Adverse Selection

As opposed to moral hazard, which stems from ex post information asymmetry, Kaplan and Strömberg's second generic agency problem deals with the conflicts resulting from ex ante information asymmetry. Because entrepreneurs know more about their own ability than the VC does, VCs face tangible risks relating to adverse selection. Theoretical literature predicts that VCs can mitigate such risks by designing contracts that appeal more to desirable entrepreneurs whose ability to a greater degree corresponds to that which is sought by the VC.

First, Lazear (1986) shows that contracts with more performance-contingent compensation can prevent exploitation by the entrepreneur and mitigate adverse selection through self-selection, i.e. that only good entrepreneurs will agree on investments that have such conditions attached. Second, Diamond (1991) shows that entrepreneurs whose private information indicates a lower risk of default are more prone to accepting stricter liquidation terms. Hence, VCs can more accurately separate good entrepreneurs from bad by including stringent liquidation rights and performance-contingent compensation schemes in their contracts.

Theoretical literature on financial contracts also predicts that VCs can leverage their choice of financial instrument to separate good entrepreneurs from bad and mitigate issues of adverse selection (Cumming & Johan, 2013). Because bad entrepreneurs, whose private information indicate low expected returns, face low opportunity cost in giving up ownership, these entrepreneurs will be

more willing to accept the use of common equity. On the other hand, entrepreneurs whose private information suggests high variability in returns (and the possibility of a very high future valuation) face high opportunity costs in giving up ownership, leading these entrepreneurs to favor preferred equity and non-convertible debt (Stiglitz & Weiss, 1981). The reasoning being that this awards investors lower ownership stakes but greater seniority.

Entrepreneurs who don't necessarily expect low returns, but do expect low variability in returns, will favor convertible securities (Brennan, 1987). This observation is not only useful for VCs, but also for "good" entrepreneurs, as the above implies that the security choice allows entrepreneurs to reveal private information credibly to investors and signal their superior ability.

Another possible avenue for solving problems of adverse selection supported by theoretical literature involves contingent control rights. Dessein (2005) shows that investor control follows an increasing function of ex ante information asymmetry and that increased investor control can function as a signaling mechanism for entrepreneur ability and objectives. Given that contingent control rights shift control to investors in only bad states of the world, good entrepreneurs face low opportunity cost in giving up such control rights to investors. Good entrepreneurs can thus signal their quality by relinquishing some of their control rights and by allowing investors to specify contingency-based control rights.

To summarize, VCs face adverse selection problems in the investment process due to information asymmetry regarding the entrepreneur's own ability. To mitigate such problems, theoretical literature suggest that VCs will design contracts that to a higher degree make compensation contingent on performance, feature stronger liquidation rights, and utilize preferred equity or convertible securities in structuring their investments. Furthermore, theoretical literature predicts that VCs will negotiate stronger contingency-based control rights when facing greater information asymmetry problems and greater risks of adverse selection.

3.3 Future Disagreements

The perhaps most fundamental criteria for a venture capital investment is that the VC and entrepreneur agree on the vision and execution plan for a venture ex ante. However, VCs are sophisticated investors who realize that venture capital investments are risky and that reality ex post seldom unfolds according to the ex ante plan. With this in mind, VCs understand that there is significant probability of situations unfolding after the investment where the VC and entrepreneur find themselves in disagreement. In such situations, the VC will want to take control of the venture

and enforce decisions. Contract theory recognizes that financial contracts are inherently incomplete and that it is impossible for contracts to account for all possible conflicts between parties *ex ante*. Given this notion, contract theory predicts that VCs and entrepreneurs will construct mechanisms for the contingent allocation of control in order to allow the VC to enforce decisions in some states of the world and the entrepreneur in others.

Contract theory outlines a range of mechanisms that support contingent allocation of control. The most fundamental mechanism involves the capital structure choice between voting equity and debt. Pioneered by Aghion and Bolton (1992), this approach suggests that entrepreneurs seek a financial structure that balances the giving up of control to new shareholders against the possibility of default, in which debt investors seize control of the venture. However, theory predicts VCs will negotiate more comprehensive control rights beyond those inherent in the financial relationship (Kirilenko, 2001). As previously mentioned, theoretical literature predicts that VCs will negotiate control rights separate from cash flow rights to mitigate issues of moral hazard. However, theoretical literature also predicts the use of separate and distinct control rights for the purpose of ensuring contingent control mechanisms relating to *ex post* disagreements. For example, theory suggests that VCs will seek to include specific control shifting covenants in order to assume control in more states of the world and construct a more multifaceted control allocation scheme that not only accounts for extreme situations, such as e.g. default (Chan, 1990). Another prediction of theory is that VCs will want to include the right to discharge and replace senior management in order to enforce their decisions (Hellman, 1998).

To summarize, VCs understand that their investments are risky and that future disagreements with the entrepreneur may arise when they will want to assume control and enforce decisions. To ensure such capabilities, contract theory predicts that VCs will construct contingent control allocation mechanisms beyond those implied by their financial relationship with the entrepreneur. These mechanisms include control shifting covenants, such as the right to discharge and replace management.

3.4 Human Capital and Hold-up Problems

In simplified terms, the VC screening phase can be described as comprising of two tests, the market test and the management test (Metrick and Yasuda, 2011). Many VCs (including those interviewed in this study) openly state that, whilst they in theory invest in companies, in practice they invest in entrepreneurs and their perceived ability to build successful companies. Given that VCs assign the

entrepreneur's human capital high value, VCs are concerned about the possibility of the entrepreneur "holding up" the VC by threatening to leave the venture (Hart & Moore, 1994). Literature shows that concerns of hold-up situations follow an increasing function of the perceived portion of human capital to total firm value and is usually regarded particularly high in very young companies, e.g. in pre-product or pre-launch ventures (Kaplan & Strömberg, 2003).

Contract theory makes several predictions relating to the entrepreneurial hold-up problem. First, theory predicts that contracts are more likely to feature investment staging when the entrepreneur's human capital is particularly valuable (Burchardt et. al, 2016). In such cases, and when the entrepreneur cannot commit to not renegotiating the investor's claim once the investment has been "sunk" into the venture, staging allows the VC to build up collateral in the venture through the entrepreneur's work during the first round of investment in anticipation of following rounds (Neher, 1999). Since staging allows the investor the freedom to refuse further investment participation, staging also adds value to the VCs investment in the form of a value-enhancing real option of exiting the investment (Bigus, 2006). Furthermore, contract theory suggests that VCs will incorporate vesting provisions that delay the effectiveness of the entrepreneur's ownership claim in order to mitigate entrepreneurial hold-up (Cumming & Johan 2013). Empirical literature finds that vesting provisions are more common and pronounced in pre revenue investments, indicating that the vesting provisions are positively correlated with the human capital to firm value ratio (Kaplan & Strömberg, 2003).

3.5 Exit-Related Hold-Up Problems

VCs are financial intermediaries who invest capital on behalf of their investors and have a contractual obligation to return capital to these investors within a given timeframe (Metrick & Yasuda, 2011). Therefore, in addition to investing and monitoring, a key activity for VCs is exiting. Given the central importance of a successful exit to the VC, it seems natural that VCs will want to secure their ability to pursue the most attractive exit opportunity when needed and solve possible exit-related hold-up problems prior to investment. Indeed, contract theory suggests that exits often give rise to conflicts of interest and makes several predictions about their influence on financial contracts.

A VC can take several different exit routes when disinvesting from a successful venture but typically pursues either an initial public offering (IPO) or a trade sale (acquisition) since these options tend to offer the most lucrative returns. Given this observation, VCs preplan their exit

outcomes only as IPOs or acquisitions (Cumming & Johan 2013). Hence, VCs tend to design contracts to ensure their ability to complete an IPO or a trade sale.

Preplanned acquisition exits have greater effects on contracts than preplanned IPOs (Cumming & Johan, 2013). In the event of a trade sale, the entrepreneur is effectively removed from the venture as the CEO (Black & Gilson, 1998) and may therefore oppose the VC's exit decision to protect private owner-manager benefits (Cumming & Johan, 2013). Furthermore, entrepreneurs usually find permanent ousting from the firm they founded very emotional, adding to their reluctance to agree on an acquisition exit. In contrast, entrepreneurs retain control of their venture in case of an IPO exit, rendering it less likely that they should engage in hold-up activities under such circumstances (Cumming & Johan 2013).

Contract theory predicts that VCs who preplan acquisition exits and anticipate a potential conflict of interest with the entrepreneur will seek to negotiate stronger control rights and protective provisions (Cumming & Johan 2013). First, VCs may negotiate greater veto rights, as these can be used as threat points in negotiation and influence the exit outcome (Cumming & Johan 2013). Secondly, VCs with exit hold-up concerns will seek to negotiate greater control rights, such as the right to replace the entrepreneur as CEO, which is deemed particularly relevant in relation to exit hold-up situations (Cumming & Johan 2013). Thirdly, theory predicts that VCs can mitigate exit-related hold-up problems by including drag-along rights (forcing the entrepreneur to sell at the same terms as the VC). Furthermore, VCs will negotiate redemption rights in cases of exit-related hold-up concerns, which force the entrepreneur to redeem the VC's shares and are particularly effective if the entrepreneur is not in the financial position to do so. Veto power of issuance of new equity through protective provisions can also be used to solve exit-related hold up problems, as these give the VC more bargaining power over additional financing rounds (Cumming & Johan, 2013). Whilst theory predicts that stronger control rights in general allow VCs to mitigate exit-related hold-up problems, the above mentioned rights are regarded as particularly effective. Whilst most theoretical literature on exit-related hold-up problems deals with how VCs contractually can secure the ability to divest from a well-performing venture, contract theory also predicts that VCs will negotiate control rights that protect them from the entrepreneur wanting to sell the venture. To remedy such concerns, theory predicts that VCs will include co-sale rights (tag-along rights), and right of first refusal (Cumming & Johan, 2013).

3.6 Double-Sided Moral Hazard & Investor Effort

An extensive body of empirical and theoretical literature has come to support the notion that the relationship between VCs and entrepreneurs is far more complex than a simple up-front capital transaction in return for future cash flows (e.g. Casamatta, 2003). VCs are active investors who remain deeply involved in their portfolio companies after investment and offer a range of value-enhancing services to promote the growth of their holdings. Some of the most recognized value-added services include assistance on hiring (Hellmann & Puri, 2002), monitoring of the firm (Lerner, 1995), managerial advice (e.g. relating to business strategy, financial policy, implementation of organizational structures, sourcing) (e.g. Metrick & Yasuda 2011), and business introductions to other portfolio companies (Lindsey, 2008). Such services can be highly valuable to entrepreneurs, especially if the entrepreneur does not have a background in business or experience from running a company. The promise of such benefits can have a profound influence on the entrepreneur's choice of which VC to partner with, or even the decision to raise venture capital in the first place. In fact, empirical literature has shown that VCs who are known to provide value-added service invest at a significant discount (Hsu, 2004). Given this notion, entrepreneurs want to mitigate any problems of moral hazard by the VC (commonly referred to as "double-sided moral hazard"), i.e. concerns that the VC will not contribute effort in the venture through value-added services. Contract theory therefore predicts that entrepreneurs will negotiate contracts that incentivize VCs to undertake supportive actions (Kaplan Strömberg 2003).

First, literature shows that the allocation of cash flow rights affect the effort that VCs will contribute to the venture (Cummings & Johan, 2013). Casamatta (2003) predicts that VC effort increases with the VC's equity stake in the venture, which is confirmed by empirical literature (Kaplan Strömberg, 2003). Moreover, contract theory predicts that entrepreneurs will favor convertible securities (convertible debt or convertible preferred equity) rather than common equity when concerned about investor moral hazard, since such securities provide effort incentives to investors both in good states of the world and in states of financial distress (Cumming & Johan, 2013; Schmidt, 2003; Houben, 2002). Second, empirical literature supports that the allocation of control rights has an impact on VC effort. Cumming & Johan (2013) show that VC effort, especially advising, increases with the level of control given to the VC in the form of veto rights. Kaplan Strömberg (2004) also shows that management intervention from the VC is related to VC board control. This suggests that entrepreneurs can address concerns about low VC effort through offering the VC control rights, such as veto rights and board rights.

To summarize, entrepreneurs seek venture capital not only for the direct benefits of a capital injections, but also to benefit the value-added services that VCs can provide. In order to ensure the realization of such services, entrepreneurs will give VCs greater cash flow and control rights to incentivize VC effort.

3.7 External Risk

As previously mentioned, venture capital investments not only involve internal risks that result from imperfections in the principal-agent relationship, but also involve external risks that result from uncertainties about the venture's outside environment. Unlike internal risks, external risks are equally uncertain for the investor and the entrepreneur and relate for example to uncertainties about future customer demand for the venture's products, the competitive landscape, and the state and appetite of financial markets when investors seek to exit their investment (Kaplan & Strömberg, 2004).

Theoretical literature predicts that a higher degree of external risk will lead VCs to require stronger control rights (Kirilenko, 2001). This is consistent with the empirical literature of Kaplan and Strömberg (2004) which finds that external risk is associated with more VC board control. Kaplan and Strömberg (2004) also find that VCs negotiate stronger redemption and liquidation rights when external risks are greater, indicating that external risks also affect contractual cash flow rights.

An particularly interesting aspect of Kaplan and Strömberg empirical study (2004) is that higher external risk is associated with more performance-contingent compensation. Contract theory namely includes both arguments for and against such compensation schemes. First, one avenue of literature argues that external risks make VC monitoring less efficient and that VCs as a result will seek to mitigate ex post information asymmetries through making compensation more contingent (Prendergast, 2002) and negotiating stronger control rights (Dessein, 2005). On the other hand, traditional moral hazard theories argue that the entrepreneur's compensation should not be made contingent on factors that the entrepreneur cannot control, e.g. external risks, because such actions would create an unhealthy division of risk between the risk-averse entrepreneur and the risk-neutral VC (Holmström, 1979). Empirical literature thus suggests that VCs regard monitoring more important than risk-sharing concerns when considering external risk (Kaplan & Strömberg, 2004).

3.8 Execution Risk

Kaplan and Strömberg (2004) outline three broad categories of risks associated with the venture capital investment process that affect contract design. Having in previous sections accounted for the first two, internal and external risk, we now move on to describe and analyze the third and final category, execution risk. Execution risk is risk associated with uncertainties about the difficulty to realize the venture's business plan and making the venture's product and technology work. These risks are to some extent under the entrepreneur's control (therefore not external), but by nature still equally uncertain to both parties (therefore not internal), and hence require separate analysis (Kaplan & Strömberg, 2004).

Ventures that feature high execution risk are more reliant on the entrepreneur's human capital. Contract theory therefore predicts that execution risks expand the hold-up problem developed by Hart & Moore (1994), suggesting that VCs will negotiate stricter vesting schemes for entrepreneurs of such ventures in line with the reasoning in previous sections on entrepreneurial hold-up problems (Kaplan & Strömberg, 2004). Furthermore, theory also suggests that ventures with high execution risk will feature contracts with more relaxed VC liquidation rights, since collateral value is lower in ventures where more firm value is tied to the entrepreneur's human capital. In fact, empirical literature supports predictions that founder vesting provisions increase with execution risk and that VC liquidation rights decrease with external risk (Kaplan & Strömberg, 2004)

Execution risk is particularly high in ventures that require entrepreneurs to perform complex and multidimensional tasks. In such ventures, success hinges on the entrepreneur handling all aspects of the business, as opposed to spending too much effort on only one area and neglecting others. Following this reasoning, contract theory predicts that execution risk is negatively correlated with performance-contingent compensation schemes (Kaplan & Strömberg, 2004), as such mechanisms tend to incentivize the entrepreneur to focus on a particular aspect of the business instead of the bigger picture (Holmström & Milgrom, 1991).

In closing, venture capital investments feature risks associated with difficulties of execution. Such risks make the entrepreneur's human capital more valuable relative the firm's total value, suggesting VCs will negotiate stronger vesting provisions and more relaxed liquidation rights. Furthermore, theory predicts that execution risk decreases performance-contingent compensation.

4. Empirical Observations

Having reviewed the predictions of contract theory we now move on to examine our sample. First, we begin by describing our sample and its limitations. Second, we move on to examining each term sheet component and the different variations found in our sample. Each term sheet component is analyzed in a separate section, beginning with a simple description of the component. Next, we analyze each term sheet component in the light of our previous theoretical discussion. Lastly, we evaluate the effectiveness of our sample in mitigating the risks and uncertainties pertaining to financial contracts in a separate discussion.

4.1 Sample Description

Our sample consists of term sheets from three successfully completed series A investments in an equal number of firms by one Swedish venture capital firm. The term sheets in our sample are all based on one template used by the VC in question, and their differences reflect the unique qualities of each investment, as well as the negotiation process between the VC and each respective founding team. The fact that the term sheets in our sample each feature distinct deviations from their common origin, indicates that the VC in question customizes its contracts to fit the unique qualities of each target firm and evaluates the risks and negotiation prospects of each deal.

Although we as part of our research have had access to a larger sample of term sheets, we have chosen to limit the final sample of our case study to three term sheets. The reasoning is as follows. First, we have chosen to limit our case study to venture capital investments in Swedish companies because we want to exclude any effects of differences in legal systems. For similar reasons, we have also chosen to limit our study to Sweden-based venture capital firms. Second, we have chosen to limit our study to one venture capital firm, as we were generously granted access to all their term sheets fitting our previously mentioned criteria and believe that our case study offers more value if we (i) exclude the risk of including culture- and process-specific differences across venture capital firms, and (ii) exclude any selection biases inherent in any VC's choice of what term sheets to share with us. At this point of filtration, our sample consisted of four term sheets. As a final step, we decided to drop one term sheet from our sample for the reason that we wanted all term sheets to feature similar investment rounds, that is, series A investment rounds. The fourth, now excluded term sheets related to a seed-stage investment, which according to representatives of the VC in question is not common practice for the firm and should be regarded as a definite outlier. As a final remark, we believe that it is relevant to mention that all term sheets in our sample are less

than eighteen months old and therefore are appropriate also from a time and business cycle perspective.

To summarize, our sample consists of three term sheets relating to three series A investments in Swedish companies by one Sweden-based venture capital firm. We have constructed the scope of our study to minimize bias relating to geography, legal context, culture- and process-specific differences across firms, investment stage, time, and business cycle. Because each term sheet in our sample also has its origin in the same document, we believe that we have constructed our sample in an optimal way with regards to our aim of examining how a professional Swedish venture capital firm leverages contract design to mitigate risks and agency conflicts.

4.2 Sample Limitations

When considering the limitations of our sample it is important to first note that our sample should be viewed in the context of a case study. The nature of a case study puts obvious limitations on the conclusions that can be drawn from such a work and we caution our readers to be careful in taking the findings of our study out of their context. That said, our sample has further limitations that require mentioning.

First, the term sheets in our sample are subject to the effects of bargaining power between the respective founders and the VC. The scope of our sample is limited to the content of our term sheets, and hence do not take into account outside variables such as the competitive nature of the deal and other factors related to the bargaining power between the parties. Second, the companies that are the subject of our term sheets operate in different industries, a variable that we also do not account for in our study. Third, the term sheets in our sample were issued in a range of 12 months, implying that our sample is vulnerable to effects relating to economic market conditions, something we have not adjusted for. Fourth, whilst our term sheets all feature series A investments, they feature different investment sizes and different company valuations. Our sample does not assume the granularity to account for such differences and instead treats all contracts equally in the context of a series A investment. Fifth and finally, one should assume that each venture capital investment is grounded in a unique investment hypothesis, that is a unique formulation about what such an investment should achieve and how the investment target should use the proceeds from the investment. As an example, one term sheet may be structured under the assumption that the investment will be the last capital injection required before the company can finance its own growth, whilst other term sheets may be structured with the intention of facilitating additional capital

injections in future investment rounds. Such strategies would most definitely have an impact on the design of a term sheets and constitute a variable that we do not account for in our case study.

5. Term Sheet Components

In the following section we investigate the components found in our sample of term sheets. We begin by describing each component and their respective purpose and then move on to analyzing each component in the light of our previous theoretical discussion. For illustrative purposes, we have attached a term sheet template in appendix. The term sheets will be referred to a term sheet A, B and C respectively.

5.1 Opening Information

The very first sentence in all our terms sheets reads as follows: “the following is a summary of the principal terms with respect to the proposed investment”. It serves as brief introduction on the purpose of the document and expresses the intention of the VC to make an investment in the firm. The sentence also alludes the non-binding character of the document and the fact that the terms are to be seen as an outline subject to further negotiations. The section then stipulates the document’s stakeholders, what company the investment is regarding, who the founder and investor is, the size of the investment and the proposed subscription price.

5.2 Securities to be Issued

The next item in our term sheets states the type of securities that will be issued upon investment. The terms sheets in our sample are diverse from a securities choice perspective and feature common shares, convertible debt, and convertible preferred shares. Preferred shares are featured in term sheets B and C, whilst A combines common shares and convertible debt.

The type of securities used by a VC when investing in portfolio companies can be classified into three main types, each with distinct characteristics and contractual implications. As mentioned, our sample feature all three types. The first option available to the VC is to use common shares that have no control or cash flow rights beyond those implied by the financial relationship. Holders of this security type are vulnerable to decisions of majority shareholders. Common shares are predominantly issued in very early stages of the firm and to people who already have a trust relationship with the entrepreneur, such as friends or family (Smeele, 2014).

Convertible debt can be issued as an alternative to common shares. Convertible debt is a form of hybrid security that initially functions as a debt instrument but can be converted to equity at a later point in time. The terms for conversion will be discussed thoroughly in a separate section. As debt has seniority over equity the investor is better protected in a bankruptcy while the convertibility gives the investor an upside if the company performs well. The use of convertible debt is advantageous in situations where the parties for some reason cannot, or will not, agree on a valuation of the firm. The issuance of convertible debt is also less complicated from a legal perspective as the investor can piggyback on the terms set in later rounds. This security choice is more commonly used by angel investors than by VCs as they invest in earlier stages and are less able to engage in costly contracting and valuation activities. Entrepreneurs are also likely to request the use of convertible debt in early stages as the degree of uncertainty regarding valuation is high (Linde, 2000).

The third option is the use of convertible preferred shares. Preferred shares have all characteristics of common stock but in addition the holder has seniority in the event of default. The holders of preferred shares will have their claim to assets fully satisfied before any other shareholders receive proceeds from a liquidation. Besides this the preferred majority is often contractually entitled to additional rights which will be discussed in greater detail under the respective provisions. The terms for conversion of preferred shares into common shares are listed under a separate provision in the term sheet.

As outlined in our theoretical discussion the use of preferred shares is often favored by VCs as it makes the entrepreneur more inclined to exert effort. The seniority of preferred shares will cause the entrepreneur's wealth to remain dependent on the performance on the firm post investment and makes liquidation more unfavorable for him or her as a holder of common stock. As mentioned, research has also shown a tendency for entrepreneurs to self-select and to be more willing to accept harsh liquidation terms if they possess private information indicating that liquidation is unlikely (Kaplan & Strömberg, 2003). Alas, issuance of preferred shares mitigates the issue of adverse selection as an entrepreneur who knows that their own ability is poor and that the business is likely to fail will be reluctant to issue such shares. Investments in common stock would on the other hand be beneficial for an entrepreneur with low ability as a liquidation of their company would give them access to funds supplied by the outside investor. The use of common stock and convertible debt in term sheet A suggests that the entrepreneur had significant leverage as contracting theory predicts that a VC will favor preferred shares whenever possible.

5.3 Capital Structure

In all our term sheet we notice that the capital structure post investment will feature significant ownership by the entrepreneur. The practice of only acquiring a minority stake contributes to the entrepreneur retaining strong incentives to maximize firm value also post investment.

5.4 Conversion

Term sheet A features debt which can be converted into equity. This convertibility is doubled-sided as both the VC and the firm can trigger conversion. The VC has the option to convert at any point in time while conversion at the discretion of the firm is conditional upon the achievement of three out of four specified milestones.

The implicit relationship between firm performance and the value of holding debt, rather than equity, is inversely correlated. If the firm is struggling and faces risk of liquidation the VC will prefer to not have its debt converted. However, the holders of stock will be interested in eliminating the seniority of the convertible debt by triggering conversion. Conversely, in states of the world in which the firm performs well the expected yield from equity will be higher than the expected value of the debt and therefore the VC will trigger conversion.

By making conversion by the firm contingent on milestones the VC can commit to relinquish seniority in good states of the world while still protecting itself from involuntary conversion in bad states of the world. The success or failure of a firm in the startup phase often hinges on few critical partnerships, patents or other uncertain developments. The VC effectively limits part of its exposure to both external and internal risks until the milestones has been achieved. Additionally, this provision incentivizes the entrepreneur to achieve the milestones and provides an instrument for him or her to credibly signal private information regarding the likelihood of achieving said milestones.

5.5 Use of Proceeds

All term sheets in our sample give a brief description of what the proceeds from the issuance are to be used for. The use of the proceeds is stated as follows: “[The use of proceeds] shall be used to finance further growth and expansion as will be agreed upon in the business plan of the company”. The statement then continues with an explanation regarding said business plan and states that it is “to be agreed between the parties in connection with the investment or as soon as possible following closing and attached to the shareholders’ agreement.”

This item ensures that the VC and entrepreneur will be in agreement as to what the funds supplied by the VC are to be used for once the investment is complete. The formation of a business plan with tangible goals and budget is valuable as it puts in print what the VC and entrepreneur have agreed upon. This document can later be used to evaluate firm performance and makes deviations from said business plan obvious.

5.6 Employee Stock Option Program

The last item in our term sheets that relates to capital structure is the employee stock option program (“ESOP”) clause. All of the term sheets in our sample contain a provision regarding the establishment of an ESOP of ten percent of the shares. An ESOP is a pool of shares that is earmarked for options that allow for future purchases of shares by key personnel at a fixed price. The strike price is set above the current valuation but below the valuation which the VC and entrepreneur believe the firm can reach if the managers are competent and exert effort.

The use of options serves two main purposes. Firstly, it attracts superior management as options appear more appealing to managers whose private information suggests high ability. Secondly, it motivates managers to exert effort as it aligns the incentives of the team with the those of the entrepreneur and the investors by making compensation contingent on firm performance. A third benefit of a large ESOP is that it shifts compensation of managers to a later point in time and thus limits the effects on current cash flows. A drawback is that the use of ESOP exposes the compensation of managers to external risks as the success of the firm is dependent on factors outside of management’s control (Hand, 2008).

The size of the option pool depends the investment stage, the size of the firm, the number of key roles as well expectations of future financing and hiring. Most VCs will negotiate an ESOP of around 10 to 20 per cent (Smeele, 2014). The size of the ESOP will often be controversial as it is issued ex ante, meaning that it will dilute the entrepreneur's stake. The benefits of a large ESOP are shared between the entrepreneur and VC, while the effects of dilution are borne solely by the entrepreneur (Deng, 2014).

5.7 Participation Right

The term sheets in our sample all feature a participation rights clause formulated as follows: “the investor will have the right, but not the obligation, to participate in subsequent issuances of any equity securities on a pro rata basis”. Participation rights ensure that the VC will be able to protect

its ownership stake in case of subsequent investment rounds. “Pro-rata” means that the VC has the right to supply funds in proportion to their initial investment. For example, if the VC initially acquired a stake of twenty per cent, the VC will be entitled to contribute twenty per cent of the capital in any further equity issuance. The purpose of a participation right is not directly related to any of the contractual issues discussed in our theory section but is rather a way for the VC to protect its ownership stake.

5.8 Exit

This section in the terms sheets in our sample is not a contractual term or condition but rather a clarifying statement by VCs that it intend to exit the investment within the given timeframe. The statement reads as follows in all of our term sheets: “it is the intention to achieve an exit through a sale of the majority of shares in the company to a third party or alternatively all, or substantially, all of the assets of the company or by an initial public offering of the shares within the coming 6-8 years”. This statement makes the nature and planned timeframe of the investment clear to all involved parties ex ante.

It is interesting to note that this statement is not precise as to what exit strategy the VC has planned. A possible explanation is that the VC simply does not know ex ante what exit strategy will be the most feasible. Another explanation is that the VC plans an acquisition exit but chooses to refrain from revealing this. The founder will in many cases be the CEO and thus opposed to an acquisition that threatens his position within the firm. By not revealing its true intentions, the VC can exploit the information asymmetry to negotiate stricter exit-rights with less opposition than they would face from a knowing entrepreneur. Additionally, the VC mitigates risks of the entrepreneur purposely making the firm less attractive for an acquisition, e.g. through making the firm incompatible with a potential acquirer or by not maximizing the firm value (Cumming & Johan 2013).

5.9 Dividends

Dividend payout is a common way to compensate investors and offer them return on their invested capital. All term sheets in our sample explicitly restrict the paying out dividends with the following formulation “the company’s dividend policy will be to not pay dividends”.

First, this provision should be viewed in the growth context of startup companies. VCs expect their portfolio companies to represent the most attractive investment opportunities, and hence consider any possible earning best invested in the businesses of their portfolio companies.

Furthermore, this statement highlights to the entrepreneur that the VC is not particularly concerned with dividends and is expecting to make returns on its investment by taking the firm public or by completing a trade sale.

Most importantly, a no-dividend policy ensures the VC that its investment is used to finance the venture's business and is not used as an avenue for entrepreneur compensation. Furthermore, a free dividend policy would make the entrepreneur less dependent on firm performance and increase the possibility of entrepreneur expropriation. The VC will usually provide the majority of the free cash in exchange for a minority stake of the business (Metrick & Yasuda, 2011). Dividend payments would benefit the entrepreneur disproportionately as he or she would be receiving a majority of the dividends financed by the VC's investment.

5.10 Board Rights

The board is responsible for hiring and firing senior management as well as continuous monitoring of their performance. The board also approves proposed strategies and various corporate actions. Thus, the party in control of the board has pronounced control over the firm.

The term sheets in our sample all contain a clause that stipulates the appointment of the company's board members. In our sample, term sheet A entitles the VC to nominate one of seven directors, term sheet B entitles the VC to nominate one of four directors, and term sheet C entitles the VC to nominate one of five directors. In addition, term sheets B and C entitle the VC to nominate one non-voting deputy director, and term sheet B entitles the VC to jointly with the founders nominate an independent chairman.

As described in the section on contract theory, board representation ensures the VC influence and access to information. Theory assumes that contracts are inherently incomplete and that neither party ex ante can anticipate all possible future states of the world nor perfectly align their incentives or interests. Hence, board representation rights are of interest to the VC as it is keen to monitor and, if needed, control its investment. Additionally, empirical literature suggests that value-added services on behalf of the VC increases with VC board representation, hence entrepreneurs also face incentives to relinquish some of their board rights (Casamatta, 2003)

5.11 Protective Provisions

As mentioned, theoretical literature predicts that VCs will negotiate a range of negative covenants, commonly referred to as protective provisions, separate from their cash flow rights. An interesting

feature of our sample is that neither of our term sheets include any specifics details on such provisions, instead stipulating that such negotiations will take place later, to be included in the shareholders' agreement. Because these provisions are lengthy, and not generally considered essential when entrepreneurs decide on whether or not to proceed with an investment, they are not included in the term sheet with the purpose of expediting the investment process.

The VC's minority stake makes it vulnerable to decisions by the majority. For example, the majority shareholder could engage in actions that benefit them at the expense of the VC. Protective provisions give the VC veto power over certain corporate actions and are commonly related to the sale, liquidation or alteration of the capital structure of the firm. Without protective provision the majority-controlled firm could e.g. be sold at a fraction of the value to a relative of the entrepreneur or use the funds supplied by the VC to repurchase the entrepreneur's shares at a price far above their fair market value (Metrick & Yasuda, 2011).

5.12 Voting Rights

A range of corporate actions and decisions have to be approved by the voting majority. These specifics vary from one firm to another but voting decisions often relate to the sale or acquisition of assets, financing, the election of board members and any other actions as agreed upon in the shareholders' agreement (Smeele, 2014). The term sheets in our sample all grant each preferred share one vote.

While voting rights constitute a means for exercising control, empirical literature shows that VCs rarely achieve voting majority, rendering them unable to enforce decisions through voting (Kaplan & Strömberg, 2003). Furthermore, voting is a slow and blunt tool in comparison to protective provisions and board rights. The other provisions endow the VC with more direct control rights, making voting rights less important.

5.13 Information Rights

All term sheets in our sample stipulates that the VC requires "standard information rights". According to the VC, these include audited financial reports, an annual budget and business plan as well as the right to advise and consult with management of the company on a regular basis. In addition, term sheets B and C specifically state the right to receive monthly and quarterly updates, whilst term sheet A only stipulates standard rights. The VC may also visit all of the firms in our sample given reasonable notice.

The issue of efficient monitoring is central to the first principal-agent problem, relating to the effort of the entrepreneur. A greater degree of information rights makes it easier for the VC to assess the effort and ability of the entrepreneur. When establishing the extent of information rights the VC needs to weigh the costs associated with providing and receiving information to the benefits of said information. The degree of how much information the VC will request is dependent on the extent of the monitoring need and the cost of information collection. When interpreting the information it can be hard to disentangle the effects of the entrepreneur's effort and ability, especially when the company is facing a high degree of external risks (Prendergast, 2002).

5.14 Liquidation Preference and Liquidation Event

VC investments are inherently risky and liquidation terms are therefore a central issue in the negotiations between a VC and an entrepreneur. As mentioned earlier with regard to security types, terms sheets B and C feature a liquidation preference while A does not.

This clause in our term sheets clarifies the hierarchy of claims in the event of liquidation. Out of the proceeds in such an event, the assets to shareholders will be distributed in the following order. Firstly, the holders of preference shares shall receive an amount equal to their average subscription price. Secondly, remaining funds are to be distributed to the holders of common stock until they have received the same amount per share as paid to the holders of preferred shares. Thirdly, any remaining proceeds shall be distributed to all shareholders pro rata.

As previously mentioned, the most important feature of the liquidation preference is its effects on agent behavior. Although preferred shares entitle seniority to proceeds in events of liquidation, the VC of study expressed in interviews that it was less interested in this feature as few liquidable assets tend to remain in practice. Instead, the anticipated effect on the entrepreneur is considered more valuable as increased effort is expected, as well as a reluctance by entrepreneurs of low ability to agree to such terms.

5.15 Conversion

Because term sheets B and C feature preference shares, they also contain a conversion clause. The conversion clause not only states that the VC at all times has the right to convert its preference shares into common shares, but also states that the VC is forced to convert in the event of an IPO. The automatic conversion should not be seen as a control right but rather as a commitment on the VC's part to relinquish its exclusive rights upon a successful IPO (Cumming & Johan 2013).

Whilst preference shares are more valuable than common shares, due to their seniority, there are cases in which the VC may wish to convert into common shares voluntarily. A common example of when a VC may convert its shares voluntarily is when another investor is willing to invest in a later round, but is unwilling to do so unless the VC gives up its preference rights.

5.16 Right of First Refusal

A right of first refusal clause entails that transfers of stock have to be offered to existing shareholders before any outside investor can accept such offers. This protects current shareholders from control being shifted to outside investors. However, first refusal rights also reduce the liquidity of shares as outside investors will be reluctant to initiate costly negotiations knowing that existing shareholders will have priority in any secondary sales.

5.17 Drag-Along

All terms sheets in our sample feature drag-along rights that allow a shareholding majority that includes the VC the ability to enforce a sale of the business to a bona fide third party or initiate and execute a listing of the firm. The remaining shareholders will be obliged to sell their shares at the same price and terms as negotiated by the majority. If the exit strategy chosen by the majority is an IPO all shareholders have to vote in favor (Smeele, 2014).

Drag-along clauses are designed to prevent the hold-up of a sale by a minority. In theory a failure to include drag-along rights could enable the minority to extract all shareholder value derived from a sale by holding up the deal. Drag-along rights are especially important when the preplanned route of exit is a trade sale. This is because a trade sale, as opposed to an IPO, often results in the CEO being removed from the firm. As discussed, many venture-backed firms feature a CEO with significant ownership who would be able to oppose a sale that threatens his or her private owner-manager benefits unless drag-along rights are included.

5.18 Tag-Along

The terms sheet we study all feature tag-along rights. These rights are designed in symmetry with the drag-along rights, but rather than being an obligation to sell, tag-along rights give all shareholders the option to sell at the same terms as another selling shareholder at a pro-rata basis. This means that a shareholder may participate in a sale resulting from a negotiation conducted by any shareholder.

Large and institutional shareholders, such as the VC, are more capable to source buyers and have the

legal and financial resources to negotiate fair terms. This means that tag-along rights offer minor shareholders greater liquidity of their shares. Shares in unlisted companies, such as the subjects of our term sheets, are difficult to sell, hence the inclusion of tag-along rights makes a VC-investment more appealing (Smeele, 2014). In addition, tag-along rights mitigate the risk of hold-up. The clause makes departure by key employees harder as they will be unable to fully divest from their minority-holding if the remaining shareholders exercises their tag-along rights.

5.19 Non-Competition and Non-Solicitation

The skills, knowledge, and sensitive information that management possesses is at the heart of every VC-investment. As the ratio of tangible assets to firm value shrinks, greater emphasis is placed on protecting the firm's intangible assets. To avoid that these assets are eroded or acquired by competing firms, the term sheets we study include a clause that make the investments conditional on management signing non-compete and non-disclosure agreements. These actions prevent them from starting or joining competing firms or disclosing sensitive information. This provision also mitigates hold-up risks as it increases the cost for entrepreneurs to leave their firms.

5.20 Founder Vesting, Lock-up, Good Leaver & Bad Leaver

As mentioned, a departure from the business by the entrepreneur or key employees could render a VC-investment worthless. Therefore, in addition to first refusal and tag-along clauses, the term sheets in our sample also include another measure that aligns incentives and mitigates entrepreneur hold-up — vesting.

Vesting makes premature departure unfavorable, as it freezes the shares of the entrepreneur until a certain time period has passed. The vesting period in all our term sheets is four years. During this period the ownership of the entrepreneur will be gradually released from lock-up. Any shares that have not been vested upon departure can only be sold to subscription price, as opposed to a potentially higher market value.

5.21 Due Diligence

All term sheets in our sample include a due diligence clause. Prior to a term sheet offering, the VC has only limited insight into the firm's operations and finances. Because of this, a condition for the completion of the investment is a successful due diligence. The due diligence process gives the VC

the right to make a thorough investigation into the firm under the commitment of completing the investment if no irregularities are found.

The inclusion of a pre-planned due diligence mitigates information asymmetry by allowing the entrepreneur to signal company performance credibly, as inaccurate or exaggerated claims by an entrepreneur will likely be ineffective. As the VC knows that the entrepreneur expects a due diligence, the VC can expect that the claims by a rational entrepreneur during negotiations to be consistent with what a due diligence of the firm would reveal.

5.22 Warranties

The warranties clause in all our term sheets is stated as follows: “the founders shall severally and not jointly give standard warranties to the lead investor”. Warranties are guarantees that the entrepreneur gives to the VC. These serve a similar purpose as the due diligence clause, and are a way for the entrepreneur to credibly guarantee certain statements. Standard warranties requested by VCs include the assurance that there are no ongoing litigations against the firm or the entrepreneur and that there exist no conflicting agreements. The specification that warranties cannot be submitted jointly implies that the warranties should be guaranteed by all founders individually. Individual warranting ensures that false warranties are litigable in a court of law (Smeele, 2014).

5.23 Fees and Expenses

The term sheets in our samples all include a statement that the companies, not the investor, will carry the legal and due diligence costs associated with completing the investment. The reasoning is that the VC wishes to avoid the entrepreneur walking away from the deal after the VC has spent significant resources completing its due diligence.

5.24 Exclusivity and Confidentiality

As the negotiating process and the activities in preparation of the investments are costly and time-consuming for the VC, all our term sheets feature a clause stipulating exclusivity. The formulation is as follows: “for a period of forty days from signing of this term sheet the company and the founders agree to not solicit offers from other parties for an equity financing of the company or a sale of shares in the company or the company's business.” This means that the entrepreneur may not seek equity financing from other investors after the terms sheet is signed. The VC is committed to the

process by their invested effort and therefore seeks to secure the entrepreneur's commitment before proceeding to final negotiations.

Furthermore, a term sheet contains sensitive information that needs to be protected by a confidentiality clause. This clause prohibits the founder from disclosing the existence of the term sheet or any of its contents to other parties than the entrepreneur's legal and financial advisors. Disclosure of the term sheet could be damaging from a competitive standpoint as the VC has spend time and effort into soliciting and evaluating the firm.

5.25 Non-Binding Effect

The non-binding clause is formulated as follows: "The provisions of this term sheet express the parties' mutual intent and shall be non-binding obligations with exception of this section and the sections entitled Expenses; Exclusivity and Confidentiality and Governing Law and Venue." This clause underscores that the term sheets is a letter of intent and that it should be viewed as a starting point for future negotiations.

5.26 Governing Law and Venue

The final section in all our term sheets stipulates that Swedish law should govern in case of any future disputes. This section also states that any disputes shall be settled in court of arbitration rather than a court of law. There are several advantages to settling disputes in an arbitration court. The proceedings are faster, the language of proceeding is free to be agreed upon by the parties and the settlement can be made confidential. Additionally, the parties can chose their own tribunal which can be advantageous as many disputes will be of a technical character.

6. Empirical Observations in Relation to Theoretical Predictions

The central issue of VC-related contract theory is that VC investments are subject to pronounced principal-agent problems as well as uncertainties associated with the company's outside environment and uncertainties related to difficulties of execution. As detailed in our literature review, contract theory predicts that VCs and entrepreneurs will attempt to solve, or at least mitigate, these risks through contract design. We now revisit the issues raised by theory and compare their predictions on contract design with the observations in our sample.

The first issue highlighted in our theoretical review is that of moral hazard and entrepreneur effort. To mitigate such risks, contract theory predicts that VCs will make compensation contingent

on performance and negotiate control rights separate from the cash flow rights inherent in the financial relationship. Whilst theory predicts that VCs will negotiate stronger board rights in cases of elevated moral hazard risk, theory also suggests that such rights are insufficient and that the VCs will negotiate negative covenants. In line with theory, all term sheets in our sample entitle the VC board representation and stipulate the establishment of large employee stock option programs to enable performance-contingent compensation. Furthermore, all term sheets also stipulate that the VC will seek to negotiate negative covenants. Whilst the final results of these negotiations are not included in the term sheets in our sample, representatives from the VC have in interviews confirmed that the VC usually secures veto rights relating to asset sales, capital structure and capital expenditure. Hence, the observations in our sample are in line with the predictions of theory.

A similar issue covered in our theoretical review relates to uncertainties on the effort commitment of the VC. Because entrepreneurs often seek venture capital also for the benefit of the VC's value-added services, contract theory predicts that entrepreneurs will relinquish some of their control rights to incentivize VC effort. As mentioned, all term sheets in our sample feature more comprehensive VC control rights than implied by the financial relationship, which corresponds with the predictions of theory.

Another issue highlighted in our theoretical review is that of entrepreneur ability and adverse selection. To mitigate such problems, theory predicts that VCs will design contracts that feature performance-contingent compensation, stronger liquidation rights, and create control mechanisms that shift control to the VC in bad states of the world. In line with theory, we find that the term sheets in our sample feature performance-contingent compensation through establishing employee stock option schemes and by ensuring that the entrepreneur retains a significant ownership stake after the investment. Secondly, our sample suggests that the VC insists on liquidation rights, either through the use of debt or through preferred shares. We do however not observe any contingency-based control rights in our sample, an observation that contrasts with the predictions of theory.

Our theoretical review also covered risks relating to possible disagreements between the VC and entrepreneur after investment. Given that the VC will want to enforce its will in such situations, theory predicts that the VC will construct contingent control allocation mechanisms, including control shifting covenants, such as the right to discharge and replace management. Despite these predictions, we again find the term sheets lacking such mechanisms. A partial explanation for this observation, based on interviews with representatives of the VC, is that the VC in question has limited resources and must prioritize which of its portfolio companies it should spend effort on.

History has shown that only very few companies in a VC portfolio generate most of its returns (Metrick & Yasuda, 2011). Hence, the VC believes that its limited time and effort is better spent making its promising portfolio firms even more successful rather than exercising control rights to steer non-performing firms in a new direction. This stance renders its interest in additional control rights in non-performing firms low.

Our theoretical review addresses concerns related to hold-up problems in firms where the human capital of the entrepreneur is particularly valuable. The high ratio between human capital and other assets in firms receiving VC investments makes them vulnerable to talent departure, especially when facing high levels of execution risk. Theory predicts that the VC will seek to mitigate this issue by preventing an entrepreneur from abandoning the business or credibly threatening to do so. These theoretical predictions align well with the provisions in our sample that make departure costly for the entrepreneur. Vesting, tag-along rights and rights of first refusal make the entrepreneur unable to quickly divest from the firm and any such threats are thus rendered non-credible. Our sample also feature drag-along rights that addresses the related issue of exit-related hold-up predicted by theory.

Lastly, theory predicts that a higher level of external risk will make monitoring of the entrepreneur's effort harder and thus increase the degree of performance-contingent compensation. However, as we are unable to assess the level of relative exposure to external risk in our sample we cannot determine whether or not our sample aligns with theory in this regard.

7. Conclusion & Outlook

In this paper we studied the terms by which a Stockholm-based venture capital firm addresses the inherent principal-agent issues associated with startup investing and how said terms relate to their counterparts in financial contracting theory. Our study began with a comprehensive review of theoretical literature on how principal-agent conflicts and other factors are expected to influence contract design in venture capital. We then introduced an empirical dimension by decomposing the components of three real world term sheets and proceeded to analyze their alignment with the predictions of theory. We find that the terms sheets issued by our VC of study to a great extent align with the predictions of theory. However, we also discovered interesting disparities between theory and the real world. Most importantly, we found that the VC we study does not negotiate contingent control to the extent predicted by theory, implying that the VC is less concerned with assuming control in bad states of the world than otherwise suggested.

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Appendix A, Term Sheet Template

TERMS FOR EQUITY INVESTMENT IN [Company name] [Date]

This term sheet (“Term Sheet”) summarizes the main terms with respect to an equity investment in [Company Name], a private limited liability company incorporated in Sweden (the “Company”).

The offering terms

Securities to Issue: Ordinary shares of the Company (“Shares”).

Investment Amount: SEK [amount] in aggregate.

Investors: [Company Names, Company ID Numbers] (“Investors”).

Lead Investor: [Company Name, Company ID Number] (“Lead Investor”).

Founders: [Company/Personal Names, Company/Personal ID Numbers] (“Founders”). In this Term Sheet, “Founder” may refer to a company and/or the physical person in control of such a company.

Existing Shareholders: [Company Names, Company ID Numbers].

Subscription Price: The price per each Share (the “Original Subscription Price”) is based on a Company pre-money valuation of SEK [amount].

Capitalization: The Company’s capital structure before and after the completion of the investment is set forth in Exhibit A.

Option Pool:	[The parties agree and acknowledge that the Company, after the investment, will issue warrants to current and future key employees, corresponding to up to [10-15]% of the shares in the Company post-money.]
Liquidation Preference:	[Upon a liquidation, merger, sale or other type of transaction in which control in the Company or substantially all of its assets are transferred, the Investors shall receive, per held share, the higher of (i) one times the Original Subscription Price or (ii) the amount they would receive if all shareholders received their <i>pro rata</i> share of such assets or proceeds. The remaining proceeds shall be distributed to the Founders and the Existing Shareholders on a <i>pro rata</i> basis.]
Financial Information:	The Lead Investor will receive standard information, including but not limited to monthly reporting of key business metrics and a summary of the Company's financial status. The other Investors will receive quarterly financial reporting.
Participation Right:	The Investors will have the right, but not the obligation, to participate in subsequent issuances of any equity securities on a <i>pro rata</i> basis.
Protective Provisions:	Approval of the Lead Investor is required to (i) amend the articles of association; (ii) issue, redeem or purchase shares or other equity securities; (iii) adversely change rights of the Shares; (iv) declare or pay any dividend or make a decision on other asset distributions; (v) guarantee any indebtedness, save for trade accounts of the Company, or incur any indebtedness in excess of SEK [amount]; (vi) merge, demerge, liquidate or dissolve the Company or a subsidiary; (vii) transfer, lease, license (other than licenses granted in the ordinary course of business on a non-exclusive basis), pledge or encumber assets or rights material to the Company; (viii) materially amend the business plan; (ix) hire, fire or amend the terms of the employment contract of the CEO; and (x) enter into any agreement or assignment with a shareholder or its immediate family member or any entity controlled by a shareholder and/or its immediate family member(s).
Board of Directors:	The Founders shall elect [three] of the directors. The Lead Investor shall elect [one] of the directors. [The other Investors shall elect one of the directors.]

Right of First Refusal:	Transfer of shares in the Company is subject to other shareholders' right of first refusal. A customary redemption clause shall be included in the Company's articles of association.
Drag-Along:	In the event holders of more than [50]% of the Shares accept an offer to sell or otherwise transfer their shares to an independent bona fide third party, all other shareholders consent to sell or otherwise transfer their shares on the same terms and conditions as the majority shareholders who have accepted the offer.
Tag-Along:	The shareholders shall have the right to participate in any sale or other transfer of shares in the same proportion and on the same terms and conditions as offered to the selling shareholder.
Expenses:	[The Company shall reimburse counsels to the Investors for fees, which shall not exceed SEK [amount]. If there is no investment, each party shall pay its own fees.]
Vesting:	Shares held by the Founders will vest over four years (the "Vesting Period") as follows: 25% to vest one year after closing and the remaining 75% to vest in equal monthly installments under the following 36 months. During the Vesting Period, the Founders may not transfer their shares without the consent of the Lead Investor. During the Vesting Period, any unvested Shares of a Founder who leaves the Company may be purchased by the other shareholders <i>pro rata</i> at (i) quota value if the Founder is a "bad leaver", or (ii) market value if the Founder is a "good leaver".
Non-Compete and Non-Solicitation:	Each Founder is required to sign a non-competition and a non-solicitation commitment, valid until one year from the date he/she ceases to be a shareholder in the Company.
Intellectual Property:	The Founders and the Existing Shareholders shall assign all relevant intellectual property to the Company.

Warranties: Each Founder shall severally and not jointly give standard warranties to the Investors, including warranties on title, intellectual property and complete information.

Confidentiality: This Term Sheet and the contents hereof are confidential to the Founders, and they may disclose these terms only to their representatives, directors and their legal or financial advisors.

Closing: Expected closing date is [date]. Definitive agreements will be based on documents published at www.startupdocs.se.

Exclusivity: [The Founders agree not to discuss or accept any financing of the Company from other parties before the expiry of the Term Sheet, except as approved by the Lead Investor.]

Non-Binding Effect: This Term Sheet is not legally binding, with the exception of this paragraph and the paragraphs entitled [Expenses, Exclusivity and] Confidentiality, which shall be construed according to the laws of Sweden.

Expiration: This Term Sheet expires on [date].

[Place] on [date]

_____	_____	_____
[Name Founder 1]	[Name Founder 2]	[Name Founder 3]
_____	_____	_____
[Name Investor 1]	[Name Investor 1]	[Name Shareholder 1]