Contracts with Benefits: The Implementation of Impact Investing‡

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ABSTRACT

Impact investing private equity and venture capital funds are a rapidly emerging force in capital markets, premised on the service of two goals at once: a financial goal as well as a social-benefit goal. The addition of this second objective complicates the already challenging problem of aligning incentives across layers of agency, and raises the question of how contracting practices should adapt. We draw on contract theory and a unique set of legal documents from impact funds to answer this both normatively and positively. Contracts struck by impact funds, both forward to portfolio companies and back to investors, use new terms to directly operationalize impact, and also adjust the use of existing terms on governance, investor protection, and other concerns to facilitate it. Moreover, funds' direct contracting on impact with investors passes through to their contracting with portfolio companies. For the most part, observed contracting terms align with theory, though they also differ in interesting ways, such as on compensation and covenants. Finally, we find evidence that different forms of contracting serve complementary roles in supporting impact.

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I. Introduction

The flow of cash from investment to entrepreneurship is complicated by moral hazards, and this is true even when everyone is simply in it for the money. There are agency problems at every layer of intermediation, as is apparent in the contracting practices that have evolved to address them. The recent growth in impact investing—investing with both financial and social-benefit goals—adds a new dimension to this already challenging contracting problem by adding a new objective for the network of contracts to serve. This raises the question of how contracting practices adapt.

The question is both theoretical and empirical. In terms of theory, a rich literature has explored the benefits, and costs, of creating enforceable rights and incentives through contracts (see Bolton and Dewatripont 2005). Some have explored the problem of multi-tasking specifically (e.g., Holmstrom and Milgrom 1991). Still others have examined the appropriateness of 'rigid' versus 'flexible' contracts when the nature of the task is uncertain, as might be the case in impact (e.g. Hart and Moore 2008, Gilson et al. 2010). We draw on these models, and others, to generate predictions about optimal contracting for this rapidly emerging investment space.

We then empirically analyze contracts struck by impact funds – both forward to portfolio companies and back to impact investors – to determine whether and how they match the theory. Our sample is a unique set of 202 legal documents pertaining to impact funds, representing 54 separate funds and 92 of their portfolio companies.

Impact investing, a term that dates only to 2007 and with ongoing definitional debate,[1] has rapidly become a major force in both the public and private financial markets. In 2006, around 100 entities collectively managing $7 trillion were signed to the UN Principles for Responsible Investment; by 2017, they were more than 1,750 collectively managing $70 trillion,[2] most of this

[1] "The State and Future of Impact Investing," *Forbes*, February 23, 2012. One definition of impact investment requires an outcome that would not occur but for the investment or, in other words, that the investment creates additionality. (Brest et al., 2017).

[2] "PRI Signatory Delisting Model to Come Into Effect Before Year-End, *Intelligence on European Pensions and Institutional Investment*, October 20, 2017. Signatories commit, among other things, to "…incorporate ESG (i.e. Environmental, Social and Governmental) issues into investment analysis and decision-making processes." https://staging-web.unpri.org/about .

presumably in the public markets. Private markets have also seen rapid growth: the 225 respondents to a 2018 survey by the Global Impact Investor Network (GIIN) report $35.5 billion of investment in 11,136 deals.[3] A number of states have passed laws in recent years enabling Benefit Corporations, charters which bind the company to a social-benefit purpose (Geczy et al. 2015). In just a decade or so, impact investing has grown both on the money-management side and on the entrepreneurial side from a niche to the sector it is now, and appears to be just the tip of a broader movement to incorporate social concerns into for-profit economic activities.

The essence of impact investing is the service of two goals at once. Investors and entrepreneurs could invest for profits and apply these profits to social causes, so that their economic interaction is all about making and sharing profits, and their social service plays out off-screen. Instead, impact investors and social entrepreneurs bundle these activities in their economic relationship, and therefore address the tensions expected from the dual mandate through the contracts that reduce this relationship to writing and through any fiduciary duties they owe. The contracts consequently present the opportunity to learn how the industry views the addition of social impact to the objective of a profit-seeking firm.

To analyze the contracts, we take advantage of two contrasts. One contrast is between our sample of market-rate seeking (MRS) impact funds and the samples of non-impact funds analyzed elsewhere in the rich literature on PE and VC contracting. Both sets of funds seek competitive financial returns, so this contrast reveals how funds add the impact goal to the financial goal. The other contrast is between these MRS impact funds and *non*-market-rate seeking (NMRS) impact funds in our sample. As the label implies, NMRS funds have lower expected financial returns than MRS funds. This comparison sheds light on contracting from another direction, using the cross-section of tradeoffs between financial and non-financial goals to relate terms to the intended intensity of impact.

To report on the contracts in an efficient way, we develop a 'scoring' methodology that distills the strength of the contracts along seven different dimensions. One of these dimensions is *operational impact*, which regroups contracting terms that assign rights and duties on the basis of

[3] https://thegiin.org/assets/2018_GIIN_Annual_Impact_Investor_Survey_webfile.pdf.

impact. Operational impact proves to be widespread in the contracts. For example, funds often build impact directly into the diligence process and impact measurement requirements. In the contracts with the funds' portfolio companies, impact is often operationalized through the fund retaining a veto right on deviations from the business model, and identifying, measuring, and reporting on the impact goal. The contracts also generally feature *aspirational impact*, which groups terms affirming the intention to deliver impact and also not to produce negative impact. Moreover, funds with a high incidence of operational impact in their contracts with investors also tend to have a high incidence of operational impact in their contracts with portfolio companies (PCs). The contracts thus bear out the prioritization of impact, in contrast with widespread concerns of greenwashing, or impact 'in name only.'

What happens to the rest of the contracts? We build on existing contract theory to explore how funds should adapt governance and control terms to promote the additional social-benefit goal, either as substitutes or as complements for direct contracting on impact. We find that impact funds differ from non-impact funds especially in areas that pertain to involvement in the investment process (what we call *participatory governance*): at the fund level this means more advisory committees and at the PC level, more seats on the board. In both cases, the levels are higher among MRS impact funds. The findings on manager restrictions, investment protection, and exit terms are mixed relative to our hypotheses, but we show how their rationale may lie in considerations specific to the impact environment. Finally, the high co-occurrence of operational impact, constraints on managers, and governance terms points to a complementary relationship among these terms.

The paper is in seven sections. Section II briefly reviews the relevant investment literature, Section III incorporates contract theory and develops hypotheses for how impact may alter contracting practices directly or indirectly, and Section IV outlines our sample and empirical approach. Section V formally relates empirics to our hypotheses. Section VII concludes.

II. **Literature Review**

Our paper, which analyzes contracts between impact-oriented PE/VC General Partners ("GPs") and their investors ("LPs"), as well as portfolio companies ("PCs"), [4,5] contributes to the vast literature on the general principal-agent problem in incomplete financial contracting (e.g., Grossman and Hart (1986); Hart and Moore (1990)). It contributes specifically to empirical projects on PE/VC funds from the last two decades observing contracting trends and relationships between contract terms. Most notably among them is Kaplan & Strömberg's (2003) paper on VC and portfolio company contracting, which finds a relationship between contract terms on financial and control rights. They also observe the complexity of VC and portfolio company contracting and a preference to use contract rights as complements to, rather than substitute for, other control terms.

Observing VC contracts with LPs, Gompers and Lerner (1996) find that GP covenants counter act the principal-agent problem in VC contracts by mitigating conflicts of interests. Later work by Gompers, Gornall, Kaplan and Strebulaev (GGKS, 2016) deepens our understanding of PE and VC fund contracting preferences and approaches to controlling internal risks through provisions like pro-rata rights, liquidation preference, anti-dilution, valuation, board control, and vesting.

A survey of LP investors, by Da Rin and Phalippou (2017), finds that LP size in terms of absolute dollars invested in private equity (rather than investor identity, i.e., endowment, past performance, or vintage) accounts for investor heterogeneity in approaches to investment decisions. They find that large LP asset investment correlates with more time spent on due diligence (up to two-fold) and includes a more robust due diligence process.

Other work focuses on fund characteristics as drivers of GP covenants. Gompers and Lerner (1996) find that fund size, age, investment stage, sector focus, and performance-based pay sensitivity influence control rights (confirmed in part by Metrick and Yasuda (2010); Gompers

[4] With a slight abuse of language, but consistent with common practice in this space, we refer to fund managers as GPs and investors into funds as LPs regardless of the specific legal structure of the fund.

[5] This builds on the sample in Geczy, Jeffers, Musto and Tucker (GJMT 2017) and a 2015 Wharton Social Impact Initiative (WSII) report on the state of impact investment. Gray, J., Ashburn, N., Douglas, H., Jeffers, J., Great Expectations: mission preservation and financial performance in impact investing (2015).

and Lerner (1999)). Fund's past performance and reputation also shape contract preferences of VC and buyout firms (Kaplan and Schoar (2005); Gompers and Lerner (1999); Gompers (1996)).

A fund's investment strategy shapes contract preferences with observable preferences among leveraged buyout firms for equity ownership incentives, board of directors' control, and PC management support (Kaplan and Strömberg (2009)). Gompers, Kaplan and Mukharlyamov (GKM, 2016) also find PE and VC fund preference for equity incentives for PC management, as well as smaller boards with fund representation. Market forces such as supply and demand within the VC market may also shape contract terms (Gompers and Lerner (1996)).

GKM (2016) also contribute to our understanding of how to value a successful exit and therefore investment, documenting the PE belief that investors prefer absolute, over relative, returns on equity investments. Legal scholarship finds a relationship between a VC fund's exit rights and governance rights in the funds' portfolio companies (Smith (2005)).

Only recently have scholars such as Barber, Morse and Yasuda (2017) begun to explore how the addition of an impact goal is reflected in contracts, which introduces an interesting complication of the standard principal-agent challenge.[6] They find that some impact investors are willing to earn lower returns in exchange for impact (Barber, Morse and Yasuda (2017)). A 2015 study of community development venture capital funds by Kovner and Lerner documents fewer successful exits as compared to traditional VC funds.

A recent legal essay by Brest, Gilson and Wolfson (2018) offers a taxonomy of investment preferences to match investor goals with manager investment strategies, describing investor preferences as socially-neutral, value aligned, or social-value creation. Their taxonomy is consistent with the three-way comparison we use in this paper.[7] Their theoretical work explores the relationship between social value creation and financial returns and, in the context of MRS funds, focuses on the role of fund managers' private information in delivery on the dual goals.

[6] The paucity of scholarship reflects both an emerging trend and a relative lack of data.

[7] Socially-neutral investors are consistent with our description (and data) of non-impact funds. Social value creation investors, split into non-concessionary investments, what we call market rate return or MRS funds, and concessionary investments, what we refer to as non-market rate seeking or NMRS funds. Brest et al. (2018), propose another category of investors—value aligned investors—who invest in companies with value aligned business practices and products, typically available in the public markets. Like Brest et al. (2018), we do not define value aligned investors as *impact* investors, and accordingly, our project does not include them, nor public market investors generally.

They look to deal terms such as benefit-linked manager compensation as a sign of strong impact commitment by MRS funds.

Our work connects recent impact investment work with traditional PE/VC literature, specifically focused on contracting terms, and contributes our observations about the implementation of impact in contracts and how the addition of impact affects other contract terms. Section III introduces and applies contract theory to impact investing, thus generating our testable hypotheses.

III. **Hypotheses**

How should contracts change to add the goals of impact investors? The contract theory literature proposes different takes on optimal contracting in principal-agent problems, depending on the nature and number of underlying tasks, the availability of information, and other parameters. In this section, we review the literature to generate predictions about the optimal way contracts should adapt to incorporate an impact goal alongside a financial goal. In Section V, we report on the contracting patterns we observe, and whether they confirm or contradict the predictions in this section.

A. Direct contracting

A. 1. Direct contracting on impact

We begin by discussing the most straightforward option for parties looking to add an impact goal to their transaction: contracting directly on these goals, by inserting express intentions and verifiable obligations tied to impact. Unsurprisingly, the contract theory literature supports this approach in several ways.

First, arguably the basis of contract theory is that contracts create enforceable rights, which can lead to damages, termination, renegotiation, or reputational costs if a term of the contract is violated (Hart and Moore 2008, Gilson et al. 2010, Gompers and Lerner 1996). In other words, contracting directly on the desired object is valuable because the agent will now incur costs if she fails to deliver the object. This generates two specific predictions for impact investing contracts. First, to create enforceable rights, contract terms must contain obligations that are actionable, as opposed to only declarations of intent. We refer to these terms as *operational impact*. Second, the

enforceable rights view of contracts suggests that an agent subject to these terms would, in turn, impose similar obligations on agents to which she has delegated tasks. In other words, there should be a flow-through of terms. In our context, this suggests that a fund subject to direct operational terms in its contracts with LPs would, in turn, impose direct operational terms in its contracts with PCs.

A second motivation for direct contracting on impact comes from Hart and Moore's (2008) framing of contracts as reference points. In this framework, contracts play an additional role in setting expectations for both parties. This provides support for also observing *aspirational impact* terms in our impact contracts, i.e., terms setting expectations about the broad intended goal of the fund. (Note that operational terms can also set expectations, at a more granular level, e.g., how impact will be achieved.) Aspirational terms can moreover serve a signaling purpose, to quickly differentiate funds with an impact goal.

Finally, contracts serve not only to define responsibilities and induce effort, but also to select parties with the right abilities and intentions (Prendergast 1999). We can view the inclusion of direct impact terms, and especially operational terms, as a way to screen out LPs, GPs, or PCs who are unwilling to commit to specific impact terms. In this sense, operational impact terms can help alleviate concerns of greenwashing.

Hypothesis 1

a) Impact fund contracts contain both aspirational terms – to differentiate the fund and set expectations – and operational terms – to create enforceable rights and screen out parties unwilling to commit to impact.

b) Funds with more operational terms in their contracts with LPs will have more operational terms in their contracts with PCs.

A. 2. Direct contracting on multiple tasks

Since the defining characteristic of impact investing is the pursuit of two goals – social or environmental benefit as well as financial returns – a natural place to turn is the literature on contracts with multi-tasking. This literature provides predictions about how direct contracting may vary when the agent is responsible for two (or more) tasks.

Holmstrom and Milgrom's (1991) seminal paper makes the point that when an agent is responsible for multiple tasks, trying to reward only the measurable activities leads to the agent spending too much time on rewarded activities, and not enough on other desired activities. In the context of impact, assuming that impact performance is hard to measure (or at least harder than financial performance), it might be sub-optimal to tie compensation to measurable aspects of performance because it could lead to distortion. Especially in MRS funds, where the balance of goals is more delicate, it could thus be best not to tie incentives directly to either goal in order to avoid distortions in either direction.

Holmstrom and Milgrom further predict that in terms of incentive pay, incentives are more appropriate when (i) the agent is not too risk averse, (ii) the variance of asset returns is low, and (iii) the variance of measurement error in other aspects of the agent's performance is low. To the extent that the variance of asset returns is high in impact, and the variance of measurement error in the other aspects of the agent's performance – the impact aspect – is high, this provides additional support for less financial incentive pay in impact, all else equal.

Building on this setting, Prendergast (1999) notes that agents in complex jobs (i.e., whose work inherently involves multi-tasking) will distort actions to respond to incentive contracts, focusing too much on what is in the contract to the detriment of tasks that cannot (or are not) contracted on. This motivates, in his setting, the use of 'subjective' (or 'holistic') performance evaluations, i.e., based on outcomes that reflect a combination of actions, rather than 'objective' performance evaluations, i.e., tied to particular discrete actions. He argues that financial performance reflects a combination of actions, and in that sense is somewhat holistic (depending on the activities demanded of the agent), while "number of home runs hit" (or in our setting "number of companies funded") might be too discrete and thus distort incentives. We return to this in further detail below as it relates to flexible contracting, but for now note the prediction for not tying compensation to discrete actions, whether on impact or financial performance.

Finally, while these models generate predictions for incentive compensation, Gompers and Lerner (1996) make the interesting point that we can think of certain restrictions on agents as negative compensation. The argument is that the agent may get private benefits from choosing the opportunities that are best for her (e.g., as a GP, she can build expertise in a specific area), so

that restrictions on her ability to choose among opportunities destroys a form of compensation for her. Focusing on impact investing, GPs may derive additional utility from having control over the decision because they derive a 'warm glow' from the action (Andreoni 1990).[8] Gompers and Lerner also argue that deviations from the standard 80/20 form of compensation are likely to attract attention, whereas the inclusion or deletion of restrictions is less likely to attract notice. Extending their logic to our setting, and combining it with the prediction that agents responsible for multiple tasks should not have compensation tied directly to the performance of one task or another, this suggests there should be few restrictions directly tied to impact or to financial performance. For example, there should be fewer covenants triggered by high (or low) financial performance in impact funds relative to non-impact funds. This also suggests there should be fewer covenants requiring a minimum personal investment of the GP into the fund, but possibly more imposing a cap on the GP's investment into the fund.

Hypothesis 2

a) There should be less financial incentive compensation in impact funds than in non-impact funds, and less in MRS funds than NMRS funds.

b) There should be less impact incentive compensation in MRS funds than NMRS funds. (There should be none in non-impact funds.)

c) To the extent that restrictions are a form of negative compensation, there should be fewer restrictions triggered by a particular level of financial performance in impact funds than in non-impact funds, and fewer restrictions triggered by a particular level of either impact or financial performance in MRS funds than NMRS funds.

d) There should be fewer covenants requiring a minimum personal investment of the GP into the fund, but more capping a personal investment of the GP into the fund, in impact funds relative to non-impact funds (and in MRS relative to NMRS funds).

[8] This also aligns with the notion of agent responsibility in Hart and Zingales (2017).

B. Flexible and rigid contracting

The section above starts from the premise of a binary choice: whether to contract directly on a desired action, or not. There is another lever that contracts can use: the extent to which contract terms are flexible, or rigid.

A flexible contract allows parties to adjust their outcomes to uncertainty; a rigid contract creates a bright line where a binary outcome is easier to determine. There is some overlap with the concept of contracting directly or indirectly, but the two are distinct. Below we provide examples of terms that would be considered direct or indirect with respect to impact, and rigid or flexible.

	Direct	**Indirect**
Rigid	Adhere to ESG standards	Limits on reinvestment
Flexible	Incorporate impact into due diligence	Advisory boards

The notion of flexible contracts is a natural outcome of multi-tasking predictions. Holmstrom and Milgrom's (1991) recognition that more complex jobs require less direct incentive compensation, lest they lead agents to just check the easiest box, is a precursor to this concept in that it recognizes the limits of contracts as a performance checklist. Prendergast (1999) also foreshadows flexible contracting – as we mention earlier – through what he calls 'holistic' measures of performance. Holistic performance reflects a combination of tasks, rather than tying it to one discrete action. This makes the concept, almost by definition, flexible: adjustable to uncertainty, rather than creating a bright line for a binary outcome. Thus, we already have a prediction, at a broad level, that we may see more flexible contracting in impact fund contracts.

Hart and Moore (2008) explore the concept in much more depth. They propose a model in which parties care not only about perfunctory performance (e.g., checking boxes), but also about consummate performance (e.g., getting quality from the other party). Intuitively, this makes sense when thinking about performance on social or environmental goals: parties care not

only about checking boxes, but about meaningful impact.[9] With this in mind, parties can choose to write flexible or rigid contracts regarding a future trade. The benefit of flexible contracts is that they allow adjustment to uncertainty, but their downside is that they can lead to inefficient "shading," or shirking on the consummate task.[10]

Within this framework, Hart and Moore predict that parties are more likely to put restrictions on variables over which there is an extreme conflict of interest, such as price, than on variables over which conflict is less extreme, such as the nature or characteristics of the good to be traded. In our setting, this suggests more contracting around financial terms (price), and less around the nature of impact (nature of the good).

More specifically, when the nature of the good is uncertain (e.g., the agent can invest in renewable energy or economic development), they predict that price should be fixed, because it is a zero-sum game, and that the flexibility of the contract with regards to the nature of the good will depend on the likelihood of disagreement on value of that good. If the expected disagreement over value is low, parties should leave the contract open regarding the nature of the good. If the expected disagreement is high, contracting on the nature of the good should be more rigid. In our setting, we view a greater potential for disagreement in MRS funds, because of the greater tension between a strong financial goal and a strong impact goal. Our sample also suggests PCs of NMRS

[9] There may be parties who care only about checking boxes to give the appearance of impact ("virtue signaling"). We derive predictions assuming that most principals care about meaningful impact. Writing clear tasks that can be treated as boxes to check may also be especially hard in impact because of the ambiguity around what constitutes meaningful impact.

[10] It is worth allocating a note to illustrate the application of Hart and Moore's framework to our setting in more detail. In their model, there are two stages to a relationship: a time 0 when parties agree to a trade, and a time 1 when the trade occurs. In our context, we can think of time 0 as when parties sign the LPA or term sheet, and time 1 as when investments occur. Parties feel entitled to the best outcome permitted by the contract. If the contract specifies more than one outcome (e.g., a range), there can be disagreement over what each party is entitled to. In our setting, imagine there is a range of impact allowed, because parties do not know the actual opportunities that will come up: for example, that could depend on what kind of climate or trade agreements are signed. There could then be disagreement ex-post over the appropriate level of impact to pursue, depending on the state of the world that is realized. The benefit of keeping the contract flexible is that it allows for more possible future situations where a mutually-beneficial trade occurs. However, the downside is that disagreement in the future state will lead parties to shirk when their best outcome is not pursued. Continuing the analogy, suppose that international climate policy takes a turn for the worse, so the value of climate-related impact increases for one of the parties. Having left the contract open for that kind of adjustment means that mutually beneficial opportunity can be pursued, say by investing more heavily in carbon footprint reduction; but it can also lead one of the parties to shirk if this was not their best outcome under the contract. Consider a GP-PC relationship where the GP pushes the PC to reduce their carbon footprint, while the PC prefers to focus more effort on expansion. The PC, although willing to 'trade' with the GP, might withhold some effort because they feel aggrieved by the terms of trade in practice.

funds have more embedded impact than MRS funds. Embedded impact could reduce potential disagreement on the value of the impact good. As a result, we expect there should be more rigid contracting around impact in MRS funds than in NRMS funds.

A separate work that supports the notion of flexible and rigid contracting is Gilson et al. (2010). Similar to Prendergast (1999), they argue that there is a balance in contract design between broad standards of performance, and precise, bright line rules specifying exactly what action the party must take. All else equal, it is harder, and therefore more costly, to verify the application of a broad standard than the application of a more precise contract term or rule – pointing to the potential benefits of rigid contracting when possible. However, Gilson et al. end up focusing on a slightly different angle, which essentially pertains to the optimal form that flexible contracting will take. In the following two sections, we delve into predictions about the form that rigid and flexible contracting will take, conditional on this section's predictions about the overall balance of rigid and flexible contracting generally.

Hypothesis 3

a) Impact contracts should fix prices but leave contracts flexible regarding the specific nature of impact.

b) The greater the likelihood of disagreement over the value of an impact activity, the more rigid contracting there should be. To the extent this is more likely in MRS funds, there should be more rigid contracting in MRS than NMRS funds.

B. 1. Rigid contracting

Conditional on there being rigid terms in contracts, does the literature contain predictions about what these terms will be? The answer is a qualified yes.

An early prediction on this front comes from Holmstrom and Milgrom (1991). They predict that "outside activities" should be most severely restricted when performance in the tasks that benefit the firm – the "inside activities" – are hard to measure and reward. Restrictions on outside activities, such as outside fundraising, are not uncommon in traditional VC (Gompers and Lerner 1996), but Holmstrom and Milgrom's work suggests there should be more of these restrictions in impact funds than non-impact funds. Moreover, to the extent that impact activities are harder to measure and reward than financial activities, and NMRS funds are more focused

on these activities than MRS funds, there should be more restrictions on outside activities in NMRS than MRS funds.

A few additional predictions arise from Gompers and Lerner's (1996) discussion of the motivation for covenants in LP-GP contracts. First, they argue that ex-ante restrictions take on special importance in LP-GP contracts, because this relationship is characterized by an investment that is locked in for a long period of time, with few (if any) opportunities to renegotiate. In the GP-PC relationship, by contrast, there are more points of contact and thus opportunities to renegotiate (or exit), and so ex-ante restrictions take on less importance. Thus, the first conclusion is that we should observe more restrictive covenants in LP-GP contracts than in GP-PC contracts. Consistent with this, the following predictions pertain more specifically to LP-GP contracts.

One set of covenants that Gompers and Lerner describe relate to risk-shifting concerns: limits on amount invested in a PC, limits on the use of debt, and to a lesser extent restrictions on reinvestment and co-investment. Risk-shifting is a concern when the agent's compensation resembles a call option, as is the case with GPs who get paid after LPs are paid. This compensation structure creates an incentive for the agent to increase the riskiness of investment, because this increases the odds of passing the hurdle and being paid, but the agent is insulated from the downside. Two factors govern this concern: 1) the exposure of the agent to a call option feature of compensation, and 2) the relative ease/difficulty of increasing the volatility of the underlying asset. In the previous section, we discuss a prediction that agents in impact funds should be less exposed to the performance of the underlying asset (Hypothesis 2). If these predictions hold, and holding constant the ease of increasing volatility, risk-shifting should be less of a concern in impact funds – and consequently, we would expect fewer of these covenants in impact contracts. However, it is hard to determine whether increasing the volatility of underlying assets is easier or more difficult in impact funds than in non-impact funds. We posit a third hypothesis, but only weakly: *There may be fewer restrictions around risk-shifting in impact than in non-impact funds*.

Another set of covenants discussed by Gompers and Lerner pertain to restrictions on the type of investment. Gompers and Lerner highlight two concerns: 1) that GPs receive compensation that is inappropriately large relative to other investors in a particular asset class

(e.g., public securities), and 2) that GPs choose asset classes in which they have little expertise in order to gain experience. A new concern arises in impact funds: that certain investments directly conflict with one of the parties' values (e.g., investment in fossil fuels). As a result, we expect that there should be more covenants imposing restrictions on investment in impact funds than in non-impact funds.

Hypothesis 4

a) There should be more restrictions on GP outside activities in impact funds than in non-impact funds, and more in NMRS than in MRS funds.

b) There should be more restrictive covenants in LP-GP contracts than GP-PC contracts.

c) There may be fewer restrictions around risk-shifting in impact than in non-impact funds.

d) There should be more covenants restricting asset classes in impact funds than in non-impact funds.

B. 2. Flexible contracting

Finally, what form should flexible contracting take? Here we turn to Gilson et al. (2010). They argue that in rapidly innovating environments, where parties need to assess the capacity (and willingness) of others to respond cooperatively and effectively to unforeseen circumstances, it is especially important to build trust and be able to solve problems as they arise. More broadly, in projects where the precise goal and optimal solutions only become clear in the course of collaboration, the governance process created by the contracts becomes especially important. The balance of goals inherent to impact funds, and especially to MRS funds, makes all of these concerns (e.g. trust, problem-solving ability) salient, and implies that the governance process should be especially important in impact investing, and particularly in MRS funds.

At the heart of Gilson et al.'s (2010) framework is the distinction between formal agreements, which are legally enforceable, and informal agreements, subject only to self-enforcement (e.g., because they are unverifiable by a third party such as the judge). Trust and willingness to problem-solve, for instance, are informal;[11] information rights and monitoring mechanisms are formal. Gilson et al. propose that formal mechanisms in the contract, such as

[11] Note this relates to the idea of unverifiable quality in Hart and Moore (2008), which creates the potential for shading. Unwillingness to problem-solve would be a form of shading in their setting.

information rights and monitoring, provide key support for necessary informal agreements (they refer to this as "braiding" of formal and informal elements of the contract).

More formally, they propose the following. When outcomes can be verified by a third party, formal contracts are preferred. Where outcomes are hard to characterize, and therefore difficult to verify, but the activity is observable to the parties, informal contracts are feasible. When uncertainty is high, the optimal approach is a balance of the two, where formal contracting establishes processes that make behavior observable enough to support informal contracting. Specifically, this balance takes the form of governance processes which support iterative joint effort and low-powered enforcement techniques, that protect the commitment to collaborate, but do not control the course or the outcome of the collaboration. We refer to the collection of these types of governance processes as "participatory governance," and predict that it should be stronger in impact than in non-impact funds, and in MRS than NMRS funds.

Hypothesis 5

Participatory governance, e.g. monitoring, information rights, supports for communication and problem solving, should be higher in impact than non-impact funds, and in MRS than NMRS funds.

We refer to participatory governance as a form of flexible contracting because its purpose is to allow adjustment to uncertainty. However, a more precise concept is the 'braiding' that Gilson et al. develop: this form of governance helps to bridge the gap between rigid (formal) and flexible (informal) contracting. As a result it does not stand in opposition to the rigid contracting we describe in Section B.1 and Hypothesis 4, but in fact should ideally be a complement to rigid contracting. While we offer no formal hypothesis regarding complementarity, we share results on this point at the end of Section V.

IV. **Empirical approach**

A. Sample

Our data come from a survey of impact funds administered by the Wharton Social Impact Initiative ("WSII"). WSII compiled an initial database of impact funds via primary research, by working with organizations such as B Lab, the Emerging Markets Private Equity Association

(EMPEA), and Anthos Asset Management, and by referring to lists such as ImpactBase and Impact Assets 50. At the time of our document review 3 years after the first release of the survey, 456 fund managers were contacted and 85 had completed the survey, representing 108 separate funds and 1295 portfolio companies. Of these, 43 funds provided contracts. Another 11 funds provided contracts, without completing the survey at the time of writing. We categorize funds as MRS or NMRS on the basis of their answer to the survey question: "What is the statement that best describes the fund's financial return goals?" with the options being "Targeting competitive, market rate returns," "Targeting below market, but close to market returns," "Targeting below market, close to capital preservation returns," and "Not Applicable (Explain)." The contracts, supplemented by several survey questions, form the basis of our empirical review.

Tables 1 and 2 provide summary statistics of participating funds and our sample of impact contracts.[12] Table 1: Panel A describes the 106 GP-LP contracts provided by the 54 participating funds; Panel B describes the 96 GP-PC contracts on 92 portfolio companies. GP-LP contracts establish the contractual relationship between the fund managers and investors (i.e., private placement memoranda, partnership agreements, and side letter agreements). GP-PC contracts include term sheets, letters of intent, and investment agreements.

[Insert Table 1 about here]

Participating funds' average lifespan is 8 years, with a range of 5-10 years, and subject to an average 2-year extension. The contract dates in our sample range from 1988-2016, with the majority dated 2010 or later. The average vintage year for both GP-LP and GP-PC contracts is 2008, with a mode of 2010 for both. See Table 2: Panel B for the distribution of dates.

[Insert Table 2 about here]

Appendix Table A-1 reports additional descriptive fund statistics. Participating impact funds are small. The assets under management (AUM) for our sample ranges from under $10 million to over $200 million, with 50% of participating impact funds holding assets under $75 million, and 22% under $10 million. Funds are primarily organized as limited partnerships (50%)

[12] We use the term contract to describe the legal documents we reviewed in our sample, including private placement memoranda (PPM) and term sheets. PPMs are not negotiated like traditional contracts, but are quasi contracts subject to fraud and disclosure claims after investment. Second, consistent with prior studies we treat preliminary agreements such as term sheets and letters of intent as a contract because performance mitigates enforceability concerns and elevates the contractual nature of the documents (GKM 2016).

or limited liability companies (26%) in the United States (51%), with equivalent organizational forms in other jurisdictions. Funds in our sample primarily focus on venture capital activities, including investments in growth stage companies (37%), among other undefined company stages. Of the funds with a defined geographic focus, North America, Latin America, and Africa are common targets. Participating funds have diverse target industries—many with more than one—including finance, agribusiness, water, essential individual products, social/poverty alleviating services, and health.

Appendix Table A-1 Panel B reports portfolio company summary statistics, which is less robust because it is gathered primarily from term sheets with abbreviated descriptions, if any, of portfolio company operations. Of the identifiable industries, finance and agriculture focused portfolio companies comprise nearly 40% of the sample and match the identified industry focus of the funds. Other industries with more than two portfolio companies include technology/business services (9%) and manufacturing (5%). Portfolio companies operate in Africa (17%), South Asia (11.5%), and Latin America (6%), among other jurisdictions. We have incomplete data on company stage.

Both the GP-LP and the GP-PC targeted areas of geographic and industry investment, especially the full list reported in Appendix A-1, imply that impact motivations can be embedded in operations. For example, investments in water technology, housing in Africa, microfinance in South Asia, and employment in economically depressed areas of the US are intended to generate a social or environment benefit, embedded in the nature of the business itself.

Finally, in Panel C we compare survey information for our sample funds to the information that we have for funds that participated in the WSII survey, but did not share contracts. The two groups of funds are overall fairly similar. Our sample funds contain slightly fewer MRS funds – though target net IRR is similar – and tend to be smaller than non-sample funds in terms of committed capital. The two groups appear to represent similar vintages and time horizons, as well as number of companies in which funds are invested. The most salient difference is that our sample funds tend to be part of larger and more experience firms, as measured by the total number of funds managed by the firm and the number previously managed by the most senior member of the general partnership.

B. Comparison approach

Existing PE and VC literature on profit-only investments provides our first set of comparison points. We include both PE and VC literature in our comparisons because the two overlap for our sample in meaningful ways, and at the same time neither PE nor VC is a complete match with our sample.[13]

The deal pipeline and structure differ between PE and VC funds, but overlap with our sample. For example, PE funds tend to focus on mature companies in all industries, whereas VC funds focus on startups, particularly in the technology sector (Metrick and Yasuda (2010)). Impact investment funds, in comparison, target companies in a variety of industries, some of them technology focused, and in a variety of stages. Impact funds utilize both equity and debt in portfolio company investments (like PE funds), but our sample demonstrates a preference for equity positions (like VC funds) (Coyle and Green (2014)). Impact funds mirror VC funds in their preference for minority investments, as opposed to majority control or 100% ownership among PE funds (Bratton (2002)). Finally, impact investment funds' rights to exit PCs reflect aspects of both PE and VC including registration rights, redemption rights, and an emphasis on finding a private buyer (Smith (2005); GKM (2016)). In practice, impact investment fund exits may look different from both samples, with a greater emphasis on private sales to third party buyers and redemption rights where successful founder/company employees work to buy out the fund and regain control over the company (Geczy et al. (2015)). Finally, on a practical note, the paucity of private company empirical data on contracting norms necessitates us looking to both fields.

[Insert Table 3 about here]

In constructing the data comparison points, we look to seven empirical projects—six in finance journals and one in law. The projects report data collected from 1978 to 2016. Four projects report data on VC funds; two projects report data on PE funds; and one project reports data on both VC and PE funds.

[Insert Table 4 about here]

[13] We are not the first to group private company investments into a common comparison point. See Cummings/Walz (2010), "[W]e use the term "PE" as a generic term that encompasses all investments in private firms. Likewise, for ease of exposition, we use the term "PE funds" to include earlier-stage venture capital (VC) funds and both ate-stage and mezzanine funds."

C. Contract coding

Using existing PE and VC finance and legal literature, we developed a list of contract variables and coding procedures. We hired, trained, and supervised law students to record the presence or absence of terms, record variations within provisions, and quote relevant language from the contracts. Text responses allowed us to verify coding entries, control for accuracy, and extract additional information on observable trends and nuances in contract provisions.

To make comparisons of contract terms easier to interpret and digest, we group like contract terms from our dataset of over 500 coded terms that broadly address similar concerns. For example, funds use different terms to give investors indirect control: information rights, advisory committees, etc. We group these related terms into scores normalized to 100, described in Table 5. A full list of terms and the constituent components are in Appendix 2.

[Insert Table 5 about here]

We primarily report statistics on GP-LP contracts at the fund level, aggregated across contracts. For example, if Fund A has three contracts—a PPM, an operating agreement, and a side letter—we report the total of contracting terms across these three documents. In regressions, we control for the number of contracts available for the fund. We observe two contracts for the majority of our funds. For GP-PC contracts, we never observe more than one contract for a given GP-PC pair, although a handful of companies have agreements with more than one fund. We report contract-level data for the GP-PC documents, acknowledging that funds negotiate different deals with different portfolio companies.

Table 6 contains summary statistics of non-impact focused scores for GP-LP contracts in MRS and NMRS funds, reported at the fund level. MRS fund scores are higher across the board, but especially in the areas of participatory governance and limits on manager discretion, both in terms of the average scores and in terms of the percentage of funds with positive terms. Participatory governance provides LPs with tools, such as information rights or advisory committees, to monitor the GPs' choice of investments. Limits on manager discretion provide a complementary safeguard in the form of investment caps and prohibitions on types of investments. Together, these tools suggest heightened control over investment choice on the part of LPs.

[Insert Table 6 about here]

Table 7 contains summary statistics of non-impact focused scores for GP-PC contracts in MRS and NMRS funds, reported at the contract level. The main difference seems to be higher governance and information rights for GPs of MRS impact funds, relative to GPs of NMRS impact funds, both in terms of average scores for these dimensions and in terms of the percentage of funds with positive terms. Exit controls are also higher on average for GPs from MRS impact funds, mostly coming from a longer right tail.

[Insert Table 7 about here]

V. **Results**

In this Section, we discuss the contracts that we observe in MRS and NMRS impact funds, and how they compare with the literature on non-impact funds and the predictions from Section III. First, we address direct contracting on impact goals. Second, we discuss direct contracting on multiple tasks, and examine compensation patterns. Third, we turn to evidence of flexible and rigid contracting. Finally, we review evidence of the complementarity of the different contracting forms—flexible, rigid, direct and indirect—suggesting a web of interrelated terms within a contract.

A. Direct contracting on impact

1. Aspirational and operational impact

In Table 8, we report summary statistics for aspirational and operational impact scores in GP-LP contracts, as well as the incidence of the component terms. We assume non-impact funds and PCs do not include impact terms in their contracts, so that anything we observe in impact contracts is additional, i.e., reflects the addition of the impact goal.

[Insert Table 8 about here]

Panel A contains the summary statistics for MRS funds. Results indicate that MRS funds contract directly around impact. At the contract level, 88% of documents include some description of the impact goal (aspirational impact), and 68% include actionable terms (operational impact). When we roll these up to the fund level for a more complete view of each

fund's contracting relationship, we find that 96% of funds have aspirational impact somewhere in their contracts with LPs, and 90% have operational impact.

We turn to our contracts from NMRS funds in Panel B. Eighty-four percent of NMRS fund contracts include some aspirational impact terms, and 58% include operational impact terms. When we roll these up to the fund level, all funds have aspirational impact somewhere in their contracts with investors, and 85% have operational impact.[14]

Together, Panels A and B provide support for Hypothesis 1a: impact funds contract directly on impact using enforceable terms—operational impact—and expectation-setting terms—aspirational impact. We observe a range of contracting scores: some impact funds have aspirational impact with low to no operational impact.

Do MRS funds contract more or less directly on impact than NMRS funds? Comparing the two in Panel C, MRS funds include operational impact terms slightly more than NMRS funds, although the difference is not statistically significant. This finding is consistent with Hypothesis 3 that MRS fund contracts will contain more rigid contracting on impact, in keeping with the heightened tension in their dual goals to protect the fund's unique balance between profit and impact. NMRS funds, with below market rate returns, inherently signal to their investors the fund's balance between impact (high priority) and financial returns (medium/low priority). In contrast, MRS funds' more opaque balance of dual goals may necessitate signaling impact commitment in the contract to screen out investors with mismatched priorities.

In Table 9, we turn to PC-level contracts. In Panel A, we report summary statistics for operational impact score for both MRS and NMRS contracts. Since we observe one contract per PC-fund pair, there is no need to roll up the statistics to the PC level. We find that 79% of MRS funds' PC-level contracts include operational impact terms, and 88% of these funds have at least one PC contract with operational impact terms. In contrast, just 46% of NMRS funds' PC contracts include operational impact terms—a statistically significant difference. At the same time, 84% of NMRS funds have at least one PC contract with operational impact terms. In other words, NMRS

[14] Because there are only 14 NMRS funds, the 10th and 90th percentile are interpolated from the 2nd and 3rd, and 11th and 12th ranked funds for each term.

funds include operational impact terms for some of their PCs, but for fewer of their PCs than MRS funds.

[Insert Table 9 about here]

Our findings are consistent with Hypothesis 3b that NMRS funds use less rigid contracting than MRS funds, because there is less potential disagreement over the value of the impact good in NMRS funds. One reason we posit less potential disagreement for NMRS funds is because of the relatively lower tension between goals. Another is that NMRS portfolio companies are more likely to have impact embedded in the business model. Indeed, the most common sector focus for PCs held by NMRS impact funds is Agribusiness/Farming, and the most common geographic focus is Africa, compared to Finance/Microfinance and South Asia for PCs held by MRS impact funds. The embedded nature of impact can also mean that operational terms are redundant or too costly relative to their benefit.

Panel B contains a break-out of terms comprising the operational impact score in the GP-PC contracts for both MRS and NMRS funds. Overall, these statistics indicate our funds generally contract directly on impact at the PC level, but also suggest slightly less emphasis on direct terms at the PC level than at the fund level. We dig deeper into these break-outs in sub-section 3 below.

2. Impact flow through

Next, we consider whether operational impact in GP-PC contracts reflects the impact terms in GP-LP contracts. We look at the correlation between the operational impact score of GP-PC contracts, and the aspirational and operational scores of the corresponding GP-LP relationship. Practically speaking, we run the following regressions to adjust for the number of contracts we observe at the fund level. The observation level is a GP-LP contract. Each cell presents the estimate from a different regression, with the estimate on *num. contracts* suppressed for clarity (it is always positive). Table 10 reports the results.

$$PC\ operational\ impact_i = \alpha + \beta\ fund\ score_i + \gamma\ num.contracts_i + \epsilon$$

[Insert Table 10 about here]

Looking at the full sample, operational impact in the PC contracts is strongly positively correlated with operational impact in the GP-LP contracts. This correlation is even stronger when isolated to the MRS sample. Taken together, this evidence supports Hypothesis 1c: *Funds with*

more operational terms in their contracts with LPs will have more operational terms in their contracts with PCs. However, this observation does not hold for NMRS funds, where high operational impact in GP-LP contracts is negatively associated with operational impact in GP-PC contracts, although not statistically significantly. Further, the relationship between PC-level operational impact and fund-level aspirational impact is negative, suggesting aspirational impact terms at the fund level do not guarantee operationalized impact at the PC level.[15]

3. Rigid and flexible operational impact terms

Both Tables 8 and 9 contain a break-out of terms which comprise the operational impact score, Panel D and Panel B, respectively. How funds contract around impact, not just that they do, sheds lights on our theoretical predictions. Focusing on the LP-GP contracts first, we see little GP compensation tied to impact (10% of MRS funds and 14% of NMRS funds), but more overall in NMRS funds consistent with Hypothesis 2b: *There should be less impact incentive compensation in MRS funds than NMRS funds.*

Overall, we see more rigid impact contracting in MRS funds, with MRS funds, for example, committing more to international ESG standards (34.5%) compared to NMRS funds (14%) supporting Hypothesis 3 regarding higher rigid impact contracting in MRS funds. At the same time, we see slightly more MRS funds than NMRS funds contracting on the measurement of social impact. This is in line with the prediction regarding 'participatory governance' (e.g., governance terms supporting collaboration), from Hypothesis 5. When we drill down further, however, both funds contract consistently around third-party monitoring (roughly one third of all funds). Further, both MRS and NMRS funds use impact committees consistently (around 14%) whereas our predictions suggested that MRS funds would use this form of participatory governance more than NMRS funds.

Table 9, Panel B describes operational impact terms in GP-PC contracts. Over twice as many MRS funds retain veto rights on deviation from the PC's business plan (57%) than NRMS funds (27%). We view this provision as operational impact, because the business plan has by default implications for the firm's impact. It is rigid in that it responds to a binary action (deviate

[15] In Appendix 1, we provide results for flow through of indirect fund-level terms to PC-level operational impact, and show these are also positively correlated.

or not) with a binary response (veto or not). In the same vein, we see provisions to lock in the PC's mission at exit more often in MRS funds than NMRS funds, though they are uncommon in both. These patterns suggest that rigid forms of operational impact are more common in MRS than NMRS PC contracts, consistent with Hypothesis 3. [16]

To a lesser extent, we can think of specifying the PC's specific impact in the contract as rigid, in the sense that it creates the proverbial "box to check" and makes impact less adjustable. More than a third of MRS and NMRS funds address impact specifically in the contract, 45% and 39% respectively. The pattern holds with 33% MRS funds identifying the PC's specific impact, but only 12% of NMRS funds doing so. The difference between the two is statistically significant at the 95% confidence level.

When we turn to information rights, measuring PC impact occurs in 27% of our NMRS GP-PC contracts, compared with 19% of MRS PC contracts. Similarly, more NMRS funds contract for PC impact reports (27%) than MRS funds (12%), and more specify the form of the impact report. This is at odds with Hypothesis 5, which predicts that information rights should be higher in MRS than in NMRS funds.

Finally, we observe little to no compensation tied to impact, with slightly more in NMRS funds. This is in line with Hypothesis 2b, but the results are very weak. We discuss compensation in more detail below.

B. Direct contracting on multiple tasks: incentive compensation

Here we observe whether a potential tension between two tasks—one (financial returns) with straightforward measures, and a second (impact) with more ambiguous measurements—is reflected in the amount of direct contracting on the financial goals. Compensation contract terms in GP-LP equity contracts establish ex ante the process and procedures to trigger, calculate, and modulate expected financial returns to fund investors and managers.

Compensation plans in the PE/VC space typically combine a guaranteed payment (management fee) with incentive provisions to share future profits, often using a waterfall structure. The management fee, typically around two percent per year earned on committed

[16] MRS funds also contract more than NMRS funds to lock in a PC's mission at the time of the fund's exit—another example of rigid contracting—although the occurrence rate is low at 5%.

capital, offers downside protection for managers if fund returns never reach profit distributions to managers or are significantly delayed. The incentive pay is channeled through a waterfall payment structure. In a waterfall, the fund investors are paid annual profits up to a benchmark, the *hurdle rate*. Once the hurdle rate is reached, fund management can earn its incentive fee which may be comprised of a *catch up rate*—giving fund managers profits up to 20% of the profits allocated to investors—and thereafter the *carried interest*—the manager's split of any additional profits going forward. As explained by Metrick and Yasuda (2010)[17], the base case of a waterfall payment in a fund with an 8% hurdle rate earns the LPs $108 on every $100 invested (return of capital plus 8% return). Next, if profits allow, the GP earns $2 (20% of the $10 profit), and thereafter LPs and GP split any remaining profits 80%/20%.

Table 11 reports on the management fees and incentive compensation structures for non-impact, MRS, and NMRS funds.

[Insert Table 11 about here]

A significant majority of impact funds, both MRS and NMRS, adopt management fees and waterfall compensation consistent with non-impact models. Occurrence rates for this compensation structure are highest with non-impact funds, followed by MRS funds, and NMRS funds with the lowest occurrence. The first finding, highest occurrence with non-impact funds, is consistent with Hypothesis 2a: *less incentive compensation in impact funds than in non-impact funds.* Contrary to our second prediction, however, MRS funds use the traditional compensation structure more frequently than NMRS funds. These results persist as we dig deeper into incentive compensation.

Comparing waterfall compensation terms, the modes for hurdle rate, catch-up, and carried interest are consistent across all three fund types, but there are variations in the dispersion and frequency. There is consistency in the hurdle rate mode across impact and non-impact funds, but a number of impact funds have lower hurdle rates than the typical range for non-impact

[17] Metrick and Yasuda (2010) document dispersion and complexity in waterfall structures because private markets are not standardized. We would expect similar dispersion and complexity because moving the incentive structure to impact investing would not address the standardization issues.

funds. Lower hurdle rates imply a willingness to pay for impact (specifically in the NMRS context), consistent with Barber et al.'s (2018) findings.

Relatedly, while the mode of carried interest (profit share allocated to managers) is consistent across all three groups, non-impact funds have the highest range of carried interest percentages reported and NMRS have the lowest. Similarly, non-impact funds have the highest occurrence of catch up provisions, followed by MRS and then by NMRS funds.

Management fees are an important revenue stream for GPs, and almost uniformly used by MRS funds (97%) consistent with non-impact funds (100%). In contrast, 79% of NMRS fund managers, in our sample, contract for management fees, initially suggesting that LPs alone do not shoulder the burden of decreased profit expectations with NMRS funds. But, when impact funds include management fees in the contract, especially NMRS funds, the fees are likely to be *higher* than non-impact funds' typical 2%. All NMRS funds contracted for management fees above 2% (in the range of 2-3%), which is higher than the 80% of MRS funds contracting for fees above 2%.[18] Contrast this with non-impact trends: nearly all VC funds reported on by MY (90%) contracted for management fees at or *below* 2%, and 49% of PE funds in the same study reported fees at or *below* 2%. The range of impact fund management fees observed is consistent with Hypothesis 2, that manager compensation should not be too sensitive to fund financial performance, thereby inclining a manager to serve both the financial and impact goals.

Collectively, our results indicate that non-impact funds have higher incentive compensation than impact funds in our sample, as predicted. However, the heightened dual goal tension in MRS funds generates results opposite to our prediction: instead of decreasing incentive compensation compared to NMRS funds, it increases it.

In Table 12, we examine whether compensation terms are correlated with impact terms in fund-level contracts. The small sample size limits the power, but there do not appear to be strong correlations between impact and compensation terms. One exception is the carry rate, which seems positively correlated with aspirational impact, though not with operational impact. To a lesser extent (statistically speaking), management fees seem positively correlated with

[18] Higher fees could also reflect the smaller fund size.

operational impact. This is consistent with Hypothesis 2, i.e., that in order to maximize effort on the impact goal, GPs should not have compensation tied to financial performance. However, the results are statistically significant only at the 90% confidence level.

[Insert Table 12 about here]

C. Indirect contracting: rigid and flexible terms

Next, we examine a broader range of contract terms that serve a fund's balance between profit and impact, albeit indirectly. We describe the balance of rigid and flexible contracting among these terms.

1. Covenants and restrictions as rigid contracting

Table 13 reports on terms that best map to rigid contracting in GP-LP and GP-PC contracts. Panel A describes limits to manager discretion, manager restrictions, and total combined covenants in non-impact, MRS, and NMRS GP-LP contracts. Within our sample, impacts funds have similar frequency of terms limiting manager discretion and manager restrictions, with MRS slightly higher (2-3%) than NMRS funds.

[Insert Table 13 about here]

We predicted that impact agreements would use asset restrictions to mitigate potential conflicts between GP-LP when there is disagreement about the non-financial value of a PC investment (Hypothesis 3). Indeed, nearly all MRS funds include asset restrictions in the GP-LP agreements (90%), a pattern followed by more than two-thirds of NMRS funds (71%). Further delving into the role of rigid contracting, we report additional covenants that could prevent GP-LP values disagreements. One-fifth of impact fund contracts, both for MRS and NMRS, include prohibitions on outside of region investments. Impact funds also use prohibitions on outside sector investments (10% and 17% for MRS and NMRS, respectively), and industry investment restrictions (approximately 15% for both MRS and NMRS funds). Collectively, our findings support Hypothesis 4d that asset restrictions may be a useful tool to prevent GP-LP disputes over mission-alignment in portfolio investments.

If contracting ex ante for specific manager behavior is hard, especially with impact, another approach is to restrict what the manager can do outside of the fund, thus forcing manager attention to activities that benefit the fund and LPs (see Holmstrom and Milgrom 1991). In light

of this, we expect that impact funds would impose more restrictions on managers' outside activities, but our results do not support this hypothesis. Rather, we see high manager restrictions in non-impact funds on prohibited outside fundraising, 58% as reported by Gompers and Lerner (1996), compared with approximately 15% for both MRS and NMRS funds.

Covenants against manager self-dealing may also reflect and protect the dual goals of profit and impact, as well as concerns that managers could use the difficulty of monitoring two, as opposed to one, goals to obfuscate self-dealing practices. We report covenants restricting a manager's ability to reinvest fund profits, which is above 40% for both MRS and NMRS funds, and higher than the 21% reported in by Gompers and Lerner (1996).[19] While 17% of MRS funds prohibit conflict of interest transactions, no NMRS funds do. The prevalence of profit reinvestment prohibitions in impact funds contradicts our prediction in Hypothesis 4c that impact funds would have fewer risk-shifting provisions. However, few NMRS funds, and no MRS funds, include provisions prohibiting fund-family co-investments.

Risk shifting covenants must be considered in light of compensation structures, a parameter of Hypothesis 4c which we discuss in sub-section B above. Collectively, the incentive compensation ranges suggest lower upside for impact fund managers—a setting less conducive for risk shifting that may occur when managers, far from the strike price, swing for the fences with risky or inappropriate investments. In light of this context, our findings do not contradict Hypothesis 4c, although more is required to confirm it.

Zooming back out, overall, MRS funds have fewer average restrictive covenants (3.8) compared to non-impact funds (5.6), but more than NMRS funds (2.79). Covenants in MRS funds may be more important than in NMRS funds because of MRS managers' dual and seemingly equal imperative to pursue both profit and purpose. Our results are in contrast, however, with prior theoretical predictions that covenants are more important in younger and less mature fields, which would suggest that MRS funds should have *more* restrictions compared to non-impact funds (Gompers and Lerner 1996). As VC contracting matured, restrictive covenants may have become more specific, or replaced by the reputation of managers. MRS funds may adopt non-

[19] Relatedly, few MRS funds (7%), but no NMRS funds include covenants capping industry investments. We have no comparison point with non-impact funds.

impact funds' evolved approach to covenants, so that despite the impact field's relative youth, it incorporates more mature contracting practices.

Turning to Panel B, which reports investment protection and exit in GP-PC contracts, we report how impact funds use contract terms to protect the fund's PC investment. Impact GP-PC contracts do not contain covenants similar to those used in the GP-LP contracts. The difference is likely due to the dissimilarity of transactional settings between the two, as predicted in Hypothesis 4b. GP-PC transactions typically involve more *active* investment by the fund (more on that in the following section) and flexible exit terms. Accordingly, the contract terms should reflect those differences.

Analyzing our results further, we see that MRS and NMRS funds have similar overall scores on investment protection. MRS funds include anti-dilution provisions (83%) more than NMRS funds (58%), whereas NMRS funds contract more for fund liquidation rights (81%) compared to MRS funds (38%). Both differences are statistically significant. MRS funds contract more overall on exit compared to NMRS funds, most noticeably on put and redemption rights. Interestingly, NMRS funds contract slightly more for registration rights to facilitate a going-public transaction. This result is counterintuitive, and may reflect our small sample size.

Taken as a whole, our findings on Hypothesis 4 are mixed. Our findings do not confirm all subparts of Hypothesis 4, but overall suggest that rigid contracting is an important tool in impact contracts, especially in GP-LP contracts where we see widespread use of asset restrictions and generally more covenants than in GP-PC contracts. We also have supporting, but inconclusive, results on covenants used to stem risk shifting, and no observable increase in restrictions of outside activities to mitigate the difficulty of measuring impact. Further, our comparison points in the existing literature are incomplete to conclude that MRS and NMRS impact funds vary manager restrictions compared to non-impact funds in order to indirectly serve impact goals. That intuition also requires further testing.

2. Participatory governance as flexible contracting

Next, we turn to governance terms that protect the commitment to collaborate, in the spirit of Gilson et al. (2010). We first compare GP-LP contracts on the dimension of participatory governance in Panel A.

[Insert Table 14 about here]

Participatory governance allows investors to supervise and continue to participate in the operations of a fund for the 7-10 years after the GP-LP contract is struck. Advisory committees to fund managers are one such tool for which we have a comparison point in non-impact funds (GKM).

Table 14 Panel A shows that a high majority of MRS GP-LP contracts (93%) include advisory committees to support or supervise fund management activity. Comparatively, non-impact funds contract for formal advisory committees 40% of the time and broader advisory functions, including senior advisors and other management supports, 66% of the time. MRS funds also use formal advisory committees more frequently than NMRS funds, who contract for these 86% of the time. MRS funds also have a statistically significantly higher overall score on participatory governance than NMRS funds. Together, these results provide clear support for *H5: Participatory governance, e.g. monitoring, information rights, supports for communication and problem solving, should be higher in impact than non-impact funds, and in MRS than NMRS funds*.

The stated role of these advisory committees can also be informative. Advisory committees can provide technical support through approving loans, budgets, valuations, compliance, due diligence, and audits. They can also influence fund strategy and investment policies. Unfortunately, the non-impact PE/VC literature does not provide a comparison point to our sample on advisory board function, but we provide the break-out for MRS and NMRS impact funds. Across both categories, with a few exceptions,[20] MRS funds have higher frequency of discretionary and technical assistance functions compared with NMRS funds. Most notably, MRS fund managers receive significantly more support than their NMRS counterparts on investment strategy, due diligence, investment approval, exit approval, and fund compliance. Save compliance, these functions largely invoke management discretion and judgment. They also shape a fund's core investment operations as well as opportunities to pursue financial goals (e.g., exit) and social-benefit goals (e.g., due diligence). In this way, they appear quite consistent with

[20] The few exceptions, such as review of investment impact with 3.45% of MRS funds compared to 7.14% of NMRS funds are mostly attributable to the lower count of NMRS funds and the higher weight given to each reporting fund in the frequency.

the role put forward by Gilson et al. (2010) of supporting informal agreements, say perhaps on the balance of impact and financial priorities.

In Panel B, we turn to governance provisions in the GP-PC contracts. These provisions, including fund ownership percentages, seats on the PC board, and veto rights, allow funds to participate in the ongoing operation of the PC – an analog to participatory governance, at a different level.

The literature on non-impact funds provides comparison points on fund voting controls and PC boards, so we examine these in comparison to our funds' contracts. The first point that we note is that none of the impact funds in our sample have majority control positions in PCs (defined as greater than 50% ownership), whereas non-impact funds invest as the majority owner in 25% of PC contracts. MRS funds hold an average minimum voting position of 31%, compared to non-impact funds' average voting position of 53.6%, and NMRS' average of 20%. The minimum voting percentage reflects a fund's position at the outset of the investment before options, additional financing rounds, executed rights of first refusal, and other scenarios allow a fund to gain additional shares and increase voting control. Also note that the non-impact average voting percentage is 53.6%, but only 25% of non-impact funds hold majority ownership positions, signaling either the use of preferred voting stock or an average skewed by outliers with all, or nearly all, voting shares.

It is unclear whether the differences in ownership and voting control reflect different balances of goals, or unique aspects of impact investment, such as smaller AUM or different lifecycle stages of PCs. Another possibility is that shared ownership with entrepreneurs may be an impact end itself (Geczy et al. (2015)). Either way, it provides important context for the contracting we see around board seats.

MRS funds contract for a guaranteed seat on PC boards 93% of the time compared with 41% of the time in non-impact funds. NMRS funds, with 69% contracting for guaranteed seats, are also higher than non-impact funds, but lower than MRS funds. By itself, this evokes a similar pattern of emphasis on participatory governance as we saw in impact GP-LP contracts, but now at the PC level. However, recall that non-impact funds have a majority control position in 25% of

contracts. Majority voting obviates the need for a guaranteed seat on the board, so the minority position itself could explain some of the greater emphasis on board seats in our impact contracts.

Still, the extremely high incidence of board seats in MRS fund contracts (93%), and the statistically significant difference between MRS and NMRS contracts, provide support for Hypothesis 5: that participatory governance takes on additional importance in impact funds, and especially in MRS funds. Another interesting point is that MRS and NMRS funds appear to favor small boards: their PCs have on average 4 members or less, relative to the non-impact average of 6 members. Smaller boards may also facilitate communication.

D. Complementarity

So far, we have talked about contracting terms in isolation. In practice, these terms work together to shape the relationship between LPs, GPs, and entrepreneurs. Indeed, Kaplan & Stromberg (2003) document that in non-impact VC contracts, some terms tend to be complementary (e.g., voting and board control), while others tend to be substitutes (e.g., pay performance sensitivity and founder control). While, we do not offer a formal hypothesis on contract term interactions, understanding the interaction between terms is an important piece for understanding how funds contract around the addition of the impact goal. Accordingly, we wish to observe whether, and when, indirect contracting on impact substitutes for direct contracting on impact, and whether, and when, indirect contracting appears alongside direct impact terms.

Here we provide a starting point by reporting on basic correlations between different dimensions of contracts. To be clear, these regressions are not identified, and the statements are not causal. Rather, our goal is to provide some sense of whether different groups of terms tend to appear together, in the absence of each other, or seem to be independent, in order to shed light on our reported contracting patterns.

1. GP-LP contracts

We begin by looking at the correlation between different dimensions in fund-level contracts. We use our scoring framework described in Section IV to group governance and control terms. We run pairwise regressions, controlling for the number of contracts we observe per fund, to understand the relationship between any two dimensions of the contracts. The specification is:

$$fund\ score_i = \alpha + \beta\ other\ fund\ score_i + \gamma\ num.contracts_i + \epsilon$$

Table 15 reports the results of these regressions, pooling all impact fund documents as well as examining MRS and NMRS independently. Each cell presents the estimate from a different regression, with the estimate on *num. contracts* suppressed for clarity (it is always positive). We also test the robustness of our results to running regressions at the document level.

[Insert Table 15 about here]

In Panel A, aspirational and operational impact scores are the dependent variables. Starting with the pooled results (including MRS, NMRS, and funds for which we do not have MRS/NMRS distinction), more contracting on aspirational impact is positively correlated with more contracting on operational impact and vice versa. This holds true for MRS funds on both dimensions. We observe positive correlations for NMRS funds, as well, but with lower coefficients and no statistical significance.

Returning to the pooled results again, aspirational and operational impact both are positively and statistically significantly correlated with participatory governance, limits to manager discretion and manager restrictions, but not investor return protection. This holds true when isolating MRS funds' aspirational impact scores regarding all three groups of terms. The same holds for NMRS funds, save for manager restrictions which has a negative, though statistically insignificant, correlation.

Operational impact, in contrast, displays stronger relationships with indirect contracting terms in NMRS funds, where correlations with participatory governance and limits to manager discretion are statistically significant and positive. MRS operational impact has a positive correlation on all dimensions, but only the relationship with manager restrictions is statistically significant.

Collectively, this lends support to the intuition that indirect contracting mostly complements, rather than substitutes for, direct contracting around impact. Further, the positive correlation of impact terms with manager restrictions and limits to manager discretions, two conceptually related contract dimensions, suggest that ex-ante constraints on managers may reinforce direct contracting terms in both MRS and NMRS funds, lending additional support for our hypothesis on rigid contracting (Hypothesis 4). The positive correlation of impact terms with participatory governance also lends additional support for our hypothesis on flexible contracting

(Hypothesis 5). Note that the latter two are not necessarily mutually exclusive; indeed, Gilson et al.'s (2010) hypothesis is that this type of flexible contracting helps to support other aspects of the contract. The pattern here suggests that the addition of an impact goal requires more of both types of contracting terms.

In Panel B, we turn to investor rights. Participatory governance captures terms such as information and advisory rights. We see evidence that this kind of governance is complementary with terms that specify control over managers. Although not always statistically significant to the same degree, estimate magnitudes tend to be fairly consistent across the MRS and NMRS subsamples. Once more, this is consistent with the idea that the addition of an impact goal requires more of a combination of contracting terms.

The investor return protection category (comprised of terms that directly protect the investment, such as liquidation and cash flow rights) seems relatively independent from the rest of the contracts. Once again, limits to manager discretion is positively correlated with this dependent variable, most notably with MRS funds, and to a lesser degree with NMRS funds. In NMRS funds, investor return protection also weakly correlates with the presence of participatory governance. Overall, however, investor return protection does not fit the pattern of complementarity to the same degree as the other terms and seems relatively unrelated to impact goals as well.

Finally, Panel C reports on regressions with limits to manager discretion and manager restrictions as the outcome. Both categories have very strong positive correlations, with MRS funds driving the results, particularly regarding how limits to manager discretion may influence manager restrictions. We view both of these as largely exemplary of rigid contracting.

2. GP-PC contracts

Next, we turn to the relationship between different dimensions within PC-level contracts. Since we have one document for each fund-PC relationship, the specification is simply:

$$PC\ score_i = \alpha + \beta\ other\ PC\ score_i + \epsilon$$

Table 16 reports the results for these pairwise regressions. Panel A shows correlations between operational impact and other terms in GP-PC contracts. In the full sample of funds, all terms appear positively correlated with operational impact, though governance particularly so.

In contrast with GP-LP relationships, GP-PC relationships tend to be more flexible and have more points for renegotiation, which may increase the usefulness of governance and information rights (Smith 2005).

[Insert Table 16 about here]

Interestingly, these relationships are not the same within MRS and NMRS funds. In NMRS funds, the strong positive correlations persist across all dimensions. But for MRS funds, information rights emerge as the most consistently (statistically) correlated with operational impact, while exit control and investment protection seem largely unrelated to operational impact. This is consistent with the view that information rights are also a crucial component in the braiding of formal and informal agreements (Gilson et al. 2010). In NMRS funds, the coefficient estimate for information rights is quite similar to that in MRS funds. However, exit control, governance, and investment protection all appear to be more strongly correlated with operational impact for NMRS funds. The different nature of PCs for NMRS and MRS funds, especially when it comes to exit expectations and the different exit paths that can be facilitated through governance, may explain these divergent results.

Panels B and C focus on the scores for non-impact terms—Panel B: exit control and investment protections; Panel C: governance and information—as outcomes. Starting first with investment protection, these provisions are intended to curb negative events occurring after the execution of the GP-PC contract, which might jeopardize the fund's investment and ability to earn a future return. Similarly, exit materially affects profits earned by funds and, for impact funds, the legacy of purpose beyond divestment. Given the relationship between these contract provisions and future profit as impact, we investigate how they correlate with other provisions in the contracts.

In the pooled sample, exit controls are positively and statistically significantly correlated with investment protection, governance and information rights. These observations hold for MRS and NMRS funds, but with varying degrees of statistical significance. The patterns repeat with investment protection provisions. Collectively we view exit control and investment return protection as complementary with governance and information rights.

Panel C reports governance and information rights, contracts terms with significance to our view of braided contracts, particularly in the GP-PC setting where funds are presumed to have an active role with frequent points for renegotiation before completing one of several exit options. Like with other results reports in this section, these terms appear alongside other contract terms, so that more contracting in one area, likely affects contracting in the other. Results in the pooled sample are positive and statistically significantly correlated on both dimensions. This appears to be driven more by MRS fund trends. NMRS funds demonstrate positive correlations, but to a lesser degree than MRS funds, and without statistical significance.

VI. Conclusion

Impact investing is a rapidly emerging force in capital markets, at the tip of a broad movement to incorporate social concerns into traditional profit ventures. Its essence is the service of two goals at once: a financial goal as well as a social-benefit goal. The addition of the latter objective complicates an already challenging contracting problem, and raises important questions about how contracting practices can adapt for this emerging space.

To answer these questions, we investigate a unique set of 202 legal documents pertaining to impact funds, including both forward to portfolio companies and back to impact investors. Drawing on contract theory, we generate five specific predictions about optimal contracting for this rapidly growing asset class.

First, we predict that impact fund contracts will contain both aspirational and operational terms. We also anticipate that more operational terms in the GP-LP relationship will correspond with more operational terms in contracts with PCs. We confirm both of these hypotheses. Notably, these findings belie the idea that impact investing is just greenwashing.

Second, building on models of multi-tasking, we predict there should be less financial incentive compensation in impact funds than in non-impact funds, to prevent distraction from the impact task. Within impact funds, we predict there should be less financial or impact incentive compensation in MRS than NMRS funds. This hypothesis is confirmed in part and rejected in part. Confirming the lower financial incentive compensation in impact funds, we find non-impact funds tend to have higher catch-up and carry rates than impact funds. However, MRS funds use

the traditional compensation structure more frequently than NMRS funds. Looking to impact incentives, we find few in our sample contracts, but the little we observe are in NMRS. We note that there do not appear to be strong correlations between impact and compensation terms overall, with the possible exception of management fees, which tend to be higher where impact is higher. This would be consistent with the prediction that less incentive compensation is optimal when impact goals are stronger.

Our third hypothesis also predicts that impact contracts should have fixed prices, but be generally flexible regarding the nature of impact. It also predicts that impact contracting should be more rigid in MRS than in NMRS funds. We find fairly strong support for this hypothesis, observing more rigid contracting on impact in MRS than NMRS, at both fund and PC levels.

Fourth, we extend a series of predictions on non-impact restrictions. We expect the locked-in nature of the GP-LP relationship means we will observe more standard restrictions at fund level than at the PC level, and indeed this is consistent with what we see. In impact relative to non-impact contracts, we expect fewer restrictions around risk-shifting, but more restrictions on outside activities (especially in NMRS) and on asset classes. Our findings are mixed: we see fewer restrictions on outside fundraising, a mix on risk-shifting provisions, and while we do not have a comparison point on asset restrictions, the very high incidence (90% in MRS) suggests a heightened role.

Fifth, we predict participatory governance, e.g., monitoring, information rights, and other collaborative supports, should be higher in impact than non-impact funds, and in MRS than NMRS funds. We find strong support for this, in particular in the form of advisory committees at the fund level and board seats at the PC level, but also looking at overall scores on this dimension.

Finally, we examine whether these terms tend to be complements or substitutes. At both the fund and PC level, indirect contract terms – in the form of both ex-ante restrictions and governance – appear pretty consistently alongside impact terms. Investor return protection, like incentive compensation terms, appear largely uncorrelated with impact. Collectively, our results suggest that funds adapt both rigid and flexible terms, in tandem, to support the addition of the social-benefit goal.

This paper is the first analysis of the effect of impact goals on contracts, so its findings naturally raise more questions for this and similar databases. Among these questions are the role of GP power in shaping impact investment contracts, the potentially dilutive effects of the growing impact-investing deal flow, and the tradeoff or complementary nature of profit and social-purpose benefits. We look forward to addressing these and other questions in future work on impact investing.

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Tables

Table 1: Summary Statistics for Sample of Impact Funds & Documents

Panel A: GP-LP contracts

	All funds		MRS funds		NMRS funds	
	N	%	N	%	N	%
Number of funds	54		29		14	
Number of documents	106		60		31	
Document type						
Fact Sheet	1	0.9%	1	1.7%	0	0.0%
Investment Agreement	4	3.8%	1	1.7%	1	3.2%
Issue Document	2	1.9%	0	0.0%	2	6.5%
Limited Partnership Agreement	25	23.6%	17	28.3%	4	12.9%
Operating Agreement	8	7.5%	4	6.7%	3	9.7%
PPM	43	40.6%	27	45.0%	10	32.3%
Side Letter	20	18.9%	9	15.0%	10	32.3%
Other	3	2.8%	1	1.7%	1	3.2%

Panel B: GP-PC documents

	All funds		MRS funds		NMRS funds	
	N	%	N	%	N	%
Number of funds	16		8		6	
Number of PCs	92		57		25	
Number of documents	96		58		26	
Document type						
Term Sheet	66	68.8%	37	63.8%	20	76.9%
Other	3	3.1%	0	0.0%	2	7.7%
Letter of Intent	7	7.3%	6	10.3%	0	0.0%
Loan Agreement	3	3.1%	0	0.0%	2	7.7%
Investment Agreement	17	17.7%	15	25.9%	2	7.7%

Table 2: Horizons and Years for Sample of Impact Funds & Documents

Panel A: Fund life span and extensions

	N	Mean	Min	10th pctile	25th pctile	50th pctile	75th pctile	90th pctile	Max
Life span (years)									
All	46	8.3	1	5	7	10	10	10	10
MRS	24	8.2	3	5	6.5	10	10	10	10
NMRS	12	8.8	1	7	9.2	10	10	10	10
Extensions (years)									
All	37	2.2	1	1.3	2	2	2	3	5
MRS	19	2.1	1	1.4	2	2	2	3	5
NMRS	10	2.3	2	2	2	2	2	3.1	4

Panel B: Document years

	N	Mean	Min	10th pctile	25th pctile	50th pctile	75th pctile	90th pctile	Max
GP-LP doc. year									
All	100	2008.1	1991	2001	2003	2010	2012	2014	2016
MRS	57	2009.8	2000	2005	2008	2010	2013	2014	2016
NMRS	31	2005.0	1991	1998	2001	2002	2012	2013	2014
GP-PC doc. year									
All	78	2008.7	1988	2003	2005	2010	2012	2014	2016
MRS	48	2008.7	2003	2004	2006	2009	2011	2013	2014
NMRS	19	2005.1	1988	2000	2002	2004	2010.5	2012	2014

Table 3: Characteristics of PE, VC, and Impact Spaces

	PE	VC	Impact
Similarities			
Function	Raise capital to invest in private companies		✓
Compensation	Compensation structures including management fees and waterfall structures at the fund level		✓
Operational Focus	Fund involvement with PC operations to promote growth		to some degree
Differences			
Industry & Stage	All industries, mature companies	Technology startups such as biotech, clean tech, apps, etc.	Both
Control	Majority control or 100% investment in PC	Minority control/investment in PC	Minority control
Investment	Debt and equity investments in PC	Equity in PC	Debt and equity, preference for equity
Fund Exit	Private company sale, spin off, relisting a company, etc.	Private company sale, IPO, later stage financing redemption	Sale or redemption

Table 4: Comparison Points From Literature on VC/PE

Author/Date	Sample size	Input	VC/PE	Data date range	Abbreviation
Gompers & Lerner (1996)	140	Partnership agreements	VC	1978-1992	GL '96
Gompers & Lerner (1999)	419	Fund fee contracts	VC	1978-1992	GL '99
Kaplan & Stromberg (2003)	213	Portfolio company investments	VC	1986-1999	KS
Metrick & Yasuda (2010)	238	Funds (contracts + fund research)	VC/PE	1993-2006	MY
Gompers, Kaplan & Mukharlyamov (2016)	79	Investor surveys	PE	2011-2013	GKM
Gompers, Gornall, Kaplan & Strebulaev, NBER 2016 paper	885	Investor surveys	VC	2016-2016	GGKS
Smith (2005) (*law)	367	Registration statements of venture-backed IPO's	VC	1997-2002	S

Table 5: Contract Dimensions

GP-LP contract dimensions	
1- Aspirational impact	Terms which describe intended impact. *E.g. social or environmental impact addressed, negative impact prohibited.*
2- Operational impact	Terms which incorporate impact goals into contract in actionable way. *E.g. commitment to ESG standards, compensation tied to impact.*
3- Investor return protection	Direct contract rights that protect investors' investment in the fund. *E.g. investor call/put options, tag along/drag along rights, liquidation cash flow rights.*
4- Participatory governance	Rights for investors to participate in the fund's governance, or otherwise monitor/supervise the funds. *E.g. information rights, presence and role of advisory committee.*
5- Limits to manager discretion	The discretion afforded to fund managers under the terms of the agreement. Made up of two sub-categories: asset restrictions, and prohibitions. *E.g. investment cap in PCs, sectors, regions; prohibition on investment in harmful substances, prohibition on hostile transactions.*
6- Manager restrictions	Restrictions imposed on managers. *E.g. fiduciary duty, ability to reinvest funds, restriction on manager's outside activities.*
GP-PC contract dimensions	
1- Operational impact	Terms which incorporate impact goals into contract in actionable way. *E.g. mission lock, impact measurement.*
2- Exit control	Fund's exit paths from the investment in the portfolio company. *E.g. put option in PC securities, tag along/drag along rights, termination rights.*
3- Investment protection	Fund's direct contract rights to protect its investment in the portfolio company. *E.g. ROFR in other PC securities, preemptive/anti-dilution rights, liquidation cash flow rights.*
4- Governance	Fund's ability to participate in the going operation of a portfolio company. *E.g. ownership, board seats, veto rights.*
5- Information rights	Fund information rights. This is a possible subset of governance rights. *E.g. quarterly or annual information rights, form of information shared.*
6- Fund restrictions	Restrictions imposed on fund. *E.g. ROFR on fund securities, non-compete with PC.*

Table 6: Governance/Control Dimensions in GP-LP Contracts

Panel A: MRS impact funds

	N	Mean	Std Dev	Min	10th pctile	25th pctile	50th pctile	75th pctile	90th pctile	Max	% ≠ 0
Investor return protection	29	32.5	20.9	0.0	8.3	8.3	33.3	50.0	66.7	66.7	96.6
Participatory governance	29	78.9	21.8	22.2	53.3	66.7	88.9	100.0	100.0	100.0	100.0
Limits on manager discretion	29	18.4	15.4	0.0	2.7	3.3	13.3	30.0	43.3	43.3	89.7
Manager restrictions	29	21.9	34.2	-17.6	-11.8	-5.9	11.8	52.9	76.5	88.2	93.1
Number of contracts per fund	29	2.1	1.0	1.0	1.0	2.0	2.0	2.0	3.0	6.0	100.0

Panel B: NMRS impact funds

	N	Mean	Std Dev	Min	10th pctile	25th pctile	50th pctile	75th pctile	90th pctile	Max	% ≠ 0
Investor return protection	14	29.2	15.9	0.0	2.5	25.0	33.3	41.7	41.7	50.0	85.7
Participatory governance	14	61.1	30.5	0.0	15.0	51.4	63.9	81.9	95.0	100.0	85.7
Limits on manager discretion	14	14.8	12.9	0.0	0.0	1.7	13.3	22.5	31.3	40.0	71.4
Manager restrictions	14	18.1	30.5	-17.6	-5.9	0.0	2.9	27.9	69.4	76.5	71.4
Number of contracts per fund	14	2.2	1.8	1.0	1.0	1.0	1.0	2.8	5.0	6.0	100.0

Panel C: Differences (MRS-NMRS)

	Difference in mean	t-statistic	Difference in non-zero scores	t-statistic
Investor return protection	3.3	0.521	10.8	1.303
Participatory governance	17.8	2.200**	14.3	2.147**
Limits on manager discretion	3.6	0.762	18.2	1.523
Manager restrictions	3.8	0.357	21.7	0.739
Number of contracts per fund	-0.1	-0.341	n/a	n/a

Table 7: Governance/Control Dimensions in GP-PC Contracts

Panel A: MRS impact funds

	N	Mean	Std Dev	Min	10th pctile	25th pctile	50th pctile	75th pctile	90th pctile	Max	% > 0
Exit control	58	32.7	17.2	0.0	6.3	21.9	37.5	46.1	50.0	62.5	91.4
Investment protection	58	35.4	19.4	0.0	12.1	18.2	30.3	48.5	61.5	84.8	94.8
Governance	58	32.6	10.9	0.0	20.0	26.6	32.9	38.2	45.9	51.8	98.3
Information rights	58	63.2	29.1	0.0	0.0	66.7	66.7	66.7	100.0	100.0	87.9

Panel B: NMRS impact funds

	N	Mean	Std Dev	Min	10th pctile	25th pctile	50th pctile	75th pctile	90th pctile	Max	% > 0
Exit control	26	25.1	14.2	0.0	6.3	19.5	21.9	39.8	43.8	46.9	92.3
Investment protection	26	36.6	22.6	0.0	6.1	18.2	37.9	59.8	60.6	66.7	88.5
Governance	26	25.2	14.1	0.0	1.2	13.5	28.2	36.5	40.6	41.2	88.5
Information rights	26	52.6	34.2	0.0	0.0	16.7	66.7	66.7	83.3	100.0	73.1

Panel C: Differences (MRS-NMRS)

	Difference in mean	t-statistic	Difference in non-zero scores	t-statistic
Exit control	7.6	1.968*	-0.9	-0.141
Investment protection	-1.2	-0.254	6.4	1.042
Governance	7.4	3.032***	9.8	2.508**
Information rights	10.7	1.469	14.9	1.698*

Table 8: Direct Impact Terms in GP-LP Contracts

Panel A: MRS funds

	N	Mean	Std Dev	Min	10th pctile	25th pctile	50th pctile	75th pctile	90th pctile	Max	% > 0
Aspirational impact											
Contract level	60	67.2	32.8	0.0	0.0	66.7	66.7	100.0	100.0	100.0	88.3
Fund level	29	82.8	24.6	0.0	66.7	66.7	100.0	100.0	100.0	100.0	96.6
Operational impact											
Contract level	60	28.2	26.8	0.0	0.0	0.0	27.3	45.5	55.5	100.0	68.3
Fund level	29	43.6	26.1	0.0	7.3	27.3	45.5	54.5	74.5	100.0	89.7
Num. contracts per fund	29	2.1	1.0	1	1	2	2	2	3	6	100

Panel B: NMRS funds

	N	Mean	Std Dev	Min	10th pctile	25th pctile	50th pctile	75th pctile	90th pctile	Max	% > 0
Aspirational impact											
Contract level	31	60.2	35.9	0.0	0.0	33.3	66.7	100.0	100.0	100.0	83.9
Fund level	14	78.6	24.8	33.3	43.3	66.7	83.3	100.0	100.0	100.0	100.0
Operational impact											
Contract level	31	22.6	22.3	0.0	0.0	0.0	18.2	45.5	54.5	63.6	58.1
Fund level	14	39.0	24.0	0.0	5.5	27.3	45.5	52.3	67.3	81.8	85.7
Num. contracts per fund	14	2.2	1.8	1	1	1	1	3	5	6	100

Panel C: Differences (MRS-NMRS)

	Difference in mean	t-statistic	Difference in non-zero scores	t-statistic
Aspirational impact				
Contract level	7.0	0.936	4.5	0.591
Fund level	4.2	0.522	-3.5	-0.690
Operational impact				
Contract level	5.6	1.000	10.3	0.967
Fund level	4.6	0.557	4.0	0.369

Panel D: Break-out of impact terms

	Score weight	Incidence (% funds) MRS	Incidence (% funds) NMRS	*Difference t-statistic*
Aspirational impact terms				
Social impact addressed in agreement	1	93.1%	100.0%	*-0.994*
Agreement generally prohibits negative impact	1	62.1%	50.0%	*0.739*
Fund commitment to social impact	1 if either	89.7%	71.4%	*1.523*
Fund commitment to environmental impact	1 if either	69.0%	50.0%	*1.198*
Operational impact terms				
Fund commitment to international ESG standards	0.5	34.5%	14.3%	*1.382*
Fund GP/Manager compensation tied to benefit/impact performance	1	10.3%	14.3%	*-0.369*
Fund investment due diligence policy addresses impact generally	0.5	86.2%	64.3%	*1.671*
Fund investment due diligence policy addresses portfolio company impact	1	65.5%	64.3%	*0.078*
Fund measures social impact	1	72.4%	64.3%	*0.533*
Fund uses external, third party monitor or reporting system	0.5	34.5%	35.7%	*-0.078*
Fund has an impact committee	1	13.8%	14.3%	*-0.043*

Table 9: Direct Impact Terms in GP-PC Contracts

Panel A: Operational impact

	N	Mean	Std Dev	Min	10th pctile	25th pctile	50th pctile	75th pctile	90th pctile	Max	% > 0	*% funds with >0*
MRS	58	12.6	12.9	0.0	0.0	4.3	8.5	14.4	30.4	53.2	79.3	*88*
NMRS	26	11.0	16.2	0.0	0.0	0.0	0.0	12.2	40.4	42.6	46.2	*84*
Diff. t-statistic		*0.476*									*3.182***	

Panel B: Break-out of impact terms

		Incidence (% funds)		*Difference*
	Score weight	MRS	NMRS	*t-statistic*
PC's mission locked in at the fund's exit	1	5.2%	0.0%	*1.177*
Fund exit right if change in location or business model or benefit	0.5	0.0%	3.8%	*-1.505*
Fund veto right on deviations from the business plan of the PC	1	56.9%	26.9%	*2.615***
PC has an impact committee	0.5	0.0%	0.0%	*n/a*
Fund participates in PC impact committee	0.5	0.0%	0.0%	*n/a*
Fund information rights include impact information	1	10.3%	7.7%	*0.379*
PC environmental or social benefit is measured	1	19.0%	26.9%	*-0.815*
Internal impact measurement	0.5	8.6%	15.4%	*-0.92*
External impact measurement	0.5	3.4%	0%	*0.952*
PC impact performance is reported	1	12.1%	19.2%	*-0.861*
Impact performance reporting done annually	0.25	8.6%	11.5%	*-0.417*
Compensation tied to benefit/impact performance	1	1.7%	3.8%	*-0.584*
Impact addressed generally	0.25	44.8%	38.5%	*0.539*
Impact identified	0.25	32.8%	11.5%	*2.073***
Additional social impact channels (e.g. ESG standards)	1	17.2%	7.7%	*1.152*
Document specifies impact performance reporting	0.25	12.1%	19.2%	*-0.861*

Table 10: Correlation of Operational Impact in GP-PC Contracts with GP-LP Impact Terms

	All	MRS	NMRS
Aspirational impact (fund)	**-0.166***	0.243	0.114
	(0.0938)	(0.162)	(0.4608)
Operational impact (fund)	**0.214*****	**0.377*****	-0.164
	(0.0673)	(0.0738)	(0.1437)
N	94	58	25

***: p < 1% , **: p < 5%, *: p < 10%; Standard errors in parentheses.

Table 11: Fund Compensation

	Non-impact		Impact	
	Reference	Non-impact	MRS	NMRS
Hurdle rate				
Mode	MY (VC)	8%	8%	8%
	MY (PE)	8%		
Range*	MY (VC+PE)	6-10%	5-8%	3-10%
Incidence*	MY (VC)	45%	70%	67%
	MY (PE)	92%		
25th pctile			0.0%	0.0%
50th pctile			8.0%	5.0%
75th pctile			8.0%	8.0%
Carried interest				
Mode	MY (VC)	20%	20%	20%
	MY (PE)	20%		
	GL '99	20%		
Range*	MY (VC)	17.5-30%	10-25%	10-20%
	MY (PE)	all at 20%		
	GL '99	0-45%		
		(81% in 20-21%)		
25th pctile			15.0%	14.0%
50th pctile			20.0%	20.0%
75th pctile			20.0%	20.0%
Catch-up rate				
Mode	MY (VC+PE)	20%[21]	20%	20%
Range*	MY (VC+PE)	16.5-20%	3%-25%	10-25%
Incidence*	MY (VC+PE)	99%	89%	77%
25th pctile				
50th pctile				
75th pctile				
Management fee				
Incidence*	MY (VC+PE)	100%	96.6%	78.6%
< 2% *	MY (VC)	43%	20%	0%
	MY (PE)	8%		
= 2%	MY (VC)	47%	0%	0%
	MY (PE)	41%		
> 2%	MY (VC)	10%	80%	100%
	MY (PE)	51%		
25th pctile			2.5%	2.5%
50th pctile			2.5%	2.5%
75th pctile			2.9%	3.0%

* Not counting 0%. 'Incidence' provides the percent non-zero. The percentile break-outs do include 0%.

[21] MY uses 100% to represent that the GPs get 100% of their profit allocation under the contract before the remaining profits are split between the manager and the investors, where that profit allocation is usually 20%. We express that number directly as 20%.

Table 12: Correlation of Impact and Compensation Terms in GP-LP Contracts

Column headers indicate dependent variable, with results for all funds, MRS funds, and NMRS funds side-by-side under the header. Each cell represents the result of a *separate regression* of the dependent variable on the row variable and the number of contracts we observe for the fund. The estimate on number of contracts is omitted for brevity.

$$fund\ score_i = \beta\ other\ fund\ score_i + \gamma\ num.contracts_i + \epsilon$$

Panel A: Hurdle rate

	All	MRS	NMRS
Aspirational impact (fund)	0.0001	0.00022	-0.00093
	(0.00024)	(0.00029)	(0.00053)
Operational impact (fund)	0.00009	0.00017	-0.00004
	(0.00025)	(0.00029)	(0.00067)

Panel B: Catch-up period

	All	MRS	NMRS
Aspirational impact (fund)	0.00029	0.00007	0.00064
	(0.00043)	(0.00052)	(0.00112)
Operational impact (fund)	-0.00025	-0.00021	-0.00083
	(0.00046)	(0.0005)	(0.00137)

Panel C: Carry rate

	All	MRS	NMRS
Aspirational impact (fund)	**0.00059****	0.00036	0.00083
	(0.00024)	(0.00034)	(0.00064)
Operational impact (fund)	0.00002	0.0003	-0.00073
	(0.00027)	(0.00034)	(0.00067)

Panel D: Management fee

	All	MRS	NMRS
Aspirational impact (fund)	0.00003	0.00002	0.00005
	(0.00003)	(0.00005)	(0.00004)
Operational impact (fund)	**0.00007***	**0.00008***	-0.00012
	(0.00004)	(0.00005)	(0.00007)

Table 13: Covenants

Panel A: Fund Limits to Manager Discretion and Manager Restrictions in GP-LP Contracts

	Non-impact		Impact		
	Reference	Non-impact	MRS	NMRS	*t-statistic*
Limits to Manager Discretion					
Limits to manager discretion – total score			*18.4*	*14.8*	*0.762*
Asset restrictions	n/a		90%	71%	*1.523*
Conflict of interest transactions	n/a		17%	0%	*1.668*
Fund family co-investment prohibition	n/a		0%	7%	*-1.458*
Region investment cap	n/a		0%	0%	*n/a*
No outside region investment	n/a		21%	21%	*-0.055*
No outside sector investments	n/a		10%	7%	*0.331*
Industry restrictions y/n	n/a		17%	14%	*0.24*
Industry cap	n/a		7%	0%	*0.994*
Manager Restrictions					
Manager restrictions – total score			*21.9*	*18.1*	*0.357*
Reinvesting fund profits	GL '96	21%	41%	43%	*0.138*
Coinvesting with fund	GL '96	73%	66%	21%	*2.906***
Outside fundraising	GL '96	58%	17%	14%	*0.955*
Combined					
Average number of covenant classes	GL '96	5.6	3.59	2.50	

Panel B: Investment Protection and Exit in GP-PC Contracts

	Non-impact		Impact		
	Reference	Non-impact	MRS	NMRS	*t-statistic*
Investment protection					
Investment protection – total score			*35.4*	*36.6*	*-0.254*
Anti-dilution of fund investment	KS	95%	83%	58%	*2.515***
Full ratchet preemption	KS	22%	17%	27%	*-1.015*
Weighted average preemption	KS	78%	12%	8%	*0.594*
Founder/entrepreneur non-compete	KS	70%	52%	54%	*-0.178*
Fund liquidation rights	KS	71%	38%	81%	*-3.907****
Panel C: Exit					
Exit control – total score			*32.7*	*25.1*	*1.968**
Fund put/redemption right	KS	79%	62%	50%	*1.031*
	S	43%			
Registration rights	S	90%	50%	54%	*-0.322*

Table 14: Governance

Panel A: Participatory governance in GP-LP Contracts

	Non-Impact		Impact		
	Comparison	Non-impact	MRS	N-MRS	*t-statistic*
Participatory governance – total score			*78.9*	*61.1*	*2.200***
Advisory committee incidence	GKM	40%	93.10%	85.71%	*0.769*
Advisory capacity incidence (committee, senior advisers, etc.)	GKM	66%			
Advisory committee role:					
Generally advise GP or BOD		n/a	72.41%	64.29%	*0.533*
Technical assistance to GP or BOD		n/a	6.90%	14.29%	*-0.769*
Policy assistance to GP or BOD		n/a	10.34%	14.29%	*-0.369*
Evaluate loans		n/a	0.00%	14.29%	*-2.147***
Investment strategy		n/a	55.17%	28.57%	*1.653*
Due diligence		n/a	51.72%	21.43%	*1.924**
Approve investments		n/a	58.62%	14.29%	*2.949****
Investment financial performance review		n/a	10.34%	0.00%	*1.241*
Investment impact review		n/a	3.45%	7.14%	*-0.528*
Approve conflict of interests		n/a	41.38%	42.86%	*-0.09*
Asset valuations		n/a	37.93%	28.57%	*0.592*
Approve exit scenarios		n/a	27.59%	14.29%	*0.955*
Approve reports and audits		n/a	10.34%	0.00%	*1.241*
Approve budgets, reserves, draw downs and/or fees		n/a	20.69%	14.29%	*0.495*
Fund compliance		n/a	34.48%	7.14%	*1.967**
Fund life: terminate or extend the fund		n/a	13.79%	0.00%	*1.461*
No description		n/a	6.90%	14.29%	*-0.769*

Panel B: Governance in GP-PC Contracts

	Non-impact		Impact		
	Reference	Non-impact	MRS	N-MRS	*t-statistic*
Governance – total score			*32.6*	*25.2*	*3.032****
Investor board seats guaranteed	KS	41%	93%	69%	*3.01****
Number of guaranteed seat?	GKM	2.80	1.31	1.67	
PC board size	GKM	5-7 members	4.07	3.88	*0.165*
	KS	6 members			
Investor majority control	KS	25.4%	0%	0%	*n/a*
Investor min. voting %	KS	53.6%	31%	20%	*4.474****

Table 15: Correlations Within GP-LP Contracts

Column headers indicate dependent variable, with results for all funds, MRS funds, and NMRS funds side-by-side under the header. Each cell represents the result of a *separate regression* of the dependent variable on the row variable and the number of contracts we observe for the fund. The estimate on number of contracts is omitted for brevity.

$$fund\ score_i = \beta\ other\ fund\ score_i + \gamma\ num.contracts_i + \epsilon$$

Panel A: Impact terms

	Aspirational impact			Operational impact		
	All	MRS	NMRS	All	MRS	NMRS
Aspirational impact				**0.348****	**0.530*****	0.185
				(0.13)	(0.18)	(0.25)
Operational Impact	**0.371*****	**0.484*****	0.264			
	(0.13)	(0.16)	(0.35)			
Investor return protection	0.160	0.261	0.111	0.268	0.268	0.342
	(0.18)	(0.23)	(0.50)	(0.17)	(0.24)	(0.41)
Participatory governance	**0.457*****	**0.517****	**0.573****	**0.335****	0.284	**0.426***
	(0.12)	(0.20)	(0.24)	(0.13)	(0.23)	(0.22)
Limits to manager discretion	**1.052*****	**0.940*****	**1.593****	**0.582****	0.523	**1.335****
	(0.23)	(0.28)	(0.70)	(0.25)	(0.34)	(0.59)
Manager restrictions	**0.209****	**0.364****	-0.0223	**0.348*****	**0.418*****	0.259
	(0.10)	(0.14)	(0.30)	(0.09)	(0.14)	(0.24)

Panel B: Investor rights

	Participatory governance			Investor return protection		
	All	MRS	NMRS	All	MRS	NMRS
Investor return protection	0.294	0.113	**0.821***			
	(0.18)	(0.20)	(0.45)			
Participatory governance				0.177	0.104	**0.285***
				(0.11)	(0.19)	(0.16)
Limits to manager discretion	**1.264*****	**1.039*****	**1.771****	**0.411****	**0.518***	0.0557
	(0.202)	(0.22)	(0.68)	(0.20)	(0.27)	(0.51)
Manager restrictions	**0.336*****	**0.348*****	0.332	0.127	0.192	0.202
	(0.10)	(0.12)	(0.29)	(0.08)	(0.12)	(0.17)

Panel C: Control over managers

	Limits to manager discretion			Manager restrictions		
	All	MRS	NMRS	All	MRS	NMRS
Limits to manager discretion				**1.411*****	**1.555*****	0.666
				(0.29)	(0.31)	(0.83)
Manager restrictions	**0.227*****	**0.317*****	0.0837			
	(0.05)	(0.06)	(0.10)			

***: p < 1% , **: p < 5%, *: p < 10%; Standard errors in parentheses.

Table 16: Correlation Within GP-PC Contracts

Panel A: Impact terms

	Operational impact		
	All	MRS	NMRS
Exit control	**0.180****	0.041	**0.599*****
	(0.0786)	(0.1003)	(0.1981)
Investment protection	**0.113***	-0.013	**0.318****
	(0.0629)	(0.0891)	(0.1309)
Governance	**0.354*****	0.250	**0.547****
	(0.096)	(0.1552)	(0.2055)
Information rights	**0.142*****	**0.160*****	**0.158***
	(0.0378)	(0.0554)	(0.0909)

Panel B: Investment & exit protection

	Exit control			Investment protection		
	All	MRS	NMRS	All	MRS	NMRS
Exit control				**0.659*****	**0.466*****	**0.796*****
				(0.1111)	(0.1372)	(0.2816)
Investment protection	**0.413*****	**0.366*****	**0.314*****			
	(0.0697)	(0.1079)	(0.111)			
Governance	**0.669*****	**0.740*****	0.309	**0.773*****	**0.523****	**0.793****
	(0.1116)	(0.1865)	(0.1952)	(0.1453)	(0.2276)	(0.2838)
Information rights	**0.297*****	**0.343*****	**0.187****	**0.301*****	**0.285*****	0.172
	(0.0417)	(0.0643)	(0.0756)	(0.0575)	(0.0805)	(0.1301)

Panel C: Governance & information rights

	Governance			Information rights		
	All	MRS	NMRS	All	MRS	NMRS
Governance				**1.199*****	**0.950*****	0.457
				(0.2304)	(0.3338)	(0.486)
Information rights	**0.187*****	**0.133*****	0.0778			
	(0.0358)	(0.0467)	(0.0827)			

***: p < 1% , **: p < 5%, *: p < 10%; Standard errors in parentheses.

Appendix 1

Table A-1: Additional Summary Statistics for Sample of Impact Funds & Documents

Panel A: GP-LP contracts

	All funds		MRS funds		NMRS funds	
Panel A: GP-LP contracts	N	%	N	%	N	%
Number of funds	54		29		14	
Number of documents	106		60		31	
Document type						
Fact Sheet	1	0.9%	1	1.7%	0	0.0%
Investment Agreement	4	3.8%	1	1.7%	1	3.2%
Issue Document	2	1.9%	0	0.0%	2	6.5%
Limited Partnership Agreement	25	23.6%	17	28.3%	4	12.9%
Operating Agreement	8	7.5%	4	6.7%	3	9.7%
PPM	43	40.6%	27	45.0%	10	32.3%
Side Letter	20	18.9%	9	15.0%	10	32.3%
Other	3	2.8%	1	1.7%	1	3.2%
Fund Size						
$0 <= Target < $10M	12	22.2%	9	31.0%	1	7.1%
$10M <= Target < $20M	8	14.8%	3	10.3%	5	35.7%
$20M <= Target < $30M	3	5.6%	3	10.3%	0	0.0%
$30M <= Target < $40M	2	3.7%	1	3.4%	0	0.0%
$50M <= Target < $75M	3	5.6%	3	10.3%	0	0.0%
$100M <= Target < $125M	3	5.6%	2	6.9%	1	7.1%
$150M <= Target < $175M	0	0.0%	0	0.0%	0	0.0%
$175M <= Target < $200M	0	0.0%	0	0.0%	0	0.0%
Target >= $200M	3	5.6%	1	3.4%	0	0.0%
Unknown	20	37.0%	7	24.1%	7	50.0%
Stage focus						
Growth	20	37.0%	13	44.8%	4	28.6%
Growth: Early-stage / Emerging / Startup	7	13.0%	4	13.8%	1	7.1%
Growth: Pre-seed / Seed	6	11.1%	4	13.8%	1	7.1%
Mature	2	3.7%	1	3.4%	1	7.1%
Other	2	3.7%	2	6.9%	1	7.1%
Unknown	17	31.5%	5	17.2%	6	42.9%
Geographic focus						
Undefined	19	35.2%	11	37.9%	3	21.4%
United States and Canada	20	37.0%	10	34.5%	6	42.9%
Europe	4	7.4%	1	3.4%	3	21.4%

Latin America	10	18.5%	5	17.2%	4	28.6%
Africa	15	27.8%	4	13.8%	6	42.9%
South Asia	7	13.0%	6	20.7%	1	7.1%
Southeast Asia	3	5.6%	2	6.9%	0	0.0%
Asia - Other	6	11.1%	3	10.3%	3	21.4%
Global	1	1.9%	1	3.4%	0	0.0%
Other	3	5.6%	3	10.3%	0	0.0%
Industry focus						
Undefined	21	38.9%	13	44.8%	5	35.7%
Finance and Microfinance	14	25.9%	6	20.7%	5	35.7%
Agribusiness/Farming	17	31.5%	12	41.4%	4	28.6%
Sustainable Development	9	16.7%	6	20.7%	1	7.1%
Technology and Business Services	9	16.7%	5	17.2%	3	21.4%
Water and Sanitation	10	18.5%	7	24.1%	2	14.3%
Energy	8	14.8%	7	24.1%	0	0.0%
Housing	6	11.1%	3	10.3%	1	7.1%
Essential Individual Products	10	18.5%	7	24.1%	1	7.1%
Education	9	16.7%	8	27.6%	0	0.0%
Manufacturing	9	16.7%	4	13.8%	3	21.4%
Handicrafts	1	1.9%	1	3.4%	0	0.0%
Environment	7	13.0%	6	20.7%	1	7.1%
Social/Poverty	13	24.1%	10	34.5%	1	7.1%
Health	13	24.1%	8	27.6%	4	28.6%
Employment	3	5.6%	3	10.3%	0	0.0%
Other	12	22.2%	5	17.2%	3	21.4%
Equity vs. debt strategy						
Accepts equity	48	88.9%	27	93.1%	12	85.7%
Accepts debt	42	77.8%	23	79.3%	11	78.6%
Accepts convertible securities	35	64.8%	19	65.5%	10	71.4%
Legal entity type						
Inc.	3	5.6%	0	0.0%	1	7.1%
Inv. Co.	2	3.7%	0	0.0%	2	14.3%
LLC	14	25.9%	8	27.6%	4	28.6%
LP	27	50.0%	18	62.1%	4	28.6%
Other	2	3.7%	0	0.0%	0	0.0%
Private Trust	2	3.7%	2	6.9%	0	0.0%
Public LLC	1	1.9%	1	3.4%	0	0.0%
SICAV	1	1.9%	0	0.0%	1	7.1%
Specialized Investment Fund (SIF)	1	1.9%	0	0.0%	1	7.1%
Unknown	1	1.9%	0	0.0%	1	7.1%
Country of origin						

BVI	1	1.9%	1	3.4%		0.0%
Belgium	1	1.9%		0.0%	1	7.1%
Botswana	2	3.7%		0.0%		0.0%
Canada	4	7.4%	4	13.8%		0.0%
Cayman Islands	3	5.6%	3	10.3%		0.0%
India	1	1.9%	1	3.4%		0.0%
Luxembourg	5	9.3%	1	3.4%	4	28.6%
Mauritius	3	5.6%	2	6.9%	1	7.1%
Netherlands	2	3.7%	1	3.4%		0.0%
South Africa	2	3.7%		0.0%		0.0%
United Kingdom	1	1.9%		0.0%	1	7.1%
United States	28	51.9%	16	55.2%	6	42.9%
Unknown	1	1.9%		0.0%		0.0%
Governing law						
Arkansas	1	2.1%		2.1%	1	2.1%
Canada	1	2.1%	1	2.1%		2.1%
Cayman Islands	2	4.3%	1	4.3%		4.3%
Cayman Islands (generally) and Delaware, USA (standard of gross negligence)	1	2.1%	1	2.1%		2.1%
Delaware	17	36.2%	11	36.2%	2	36.2%
EU/Belgium	1	2.1%		2.1%	1	2.1%
England	1	2.1%		2.1%	1	2.1%
India	1	2.1%	1	2.1%		2.1%
Luxembourg	5	10.6%	1	10.6%	4	10.6%
Maine	2	4.3%	1	4.3%	1	4.3%
Mauritius	3	6.4%	2	6.4%	1	6.4%
Mauritius (East Africa)	1	2.1%		2.1%		2.1%
Mississippi	1	2.1%		2.1%	1	2.1%
Netherlands	2	4.3%	1	4.3%		4.3%
Ontario and the federal laws of Canada as applicable to Ontario.	1	2.1%	1	2.1%		2.1%
Ontario, Canada	1	2.1%	1	2.1%		2.1%
Pennsylvania	1	2.1%		2.1%	1	2.1%
Quebec, Canada	1	2.1%	1	2.1%		2.1%
RSA	1	2.1%		2.1%		2.1%
USA	1	2.1%	1	2.1%		2.1%
United States	1	2.1%		2.1%		2.1%

Panel B: GP-PC documents

	All funds		MRS funds		NMRS funds	
	N	%	N	%	N	%
Number of funds	16		8		6	
Number of PCs	92		57		25	
Number of documents	96		58		26	
Document type						
Term Sheet	66	68.8%	37	63.8%	20	76.9%
Other	3	3.1%	0	0.0%	2	7.7%
Letter of Intent	7	7.3%	6	10.3%	0	0.0%
Loan Agreement	3	3.1%	0	0.0%	2	7.7%
Investment Agreement	17	17.7%	15	25.9%	2	7.7%
Industry focus						
Undefined	0	0.0%	0	0.0%	0	0.0%
Finance and Microfinance	16	16.7%	13	22.4%	2	7.7%
Agribusiness/Farming	21	21.9%	8	13.8%	9	34.6%
Sustainable Development	0	0.0%	0	0.0%	0	0.0%
Technology and Business Services	9	9.4%	8	13.8%	1	3.8%
Water and Sanitation	2	2.1%	2	3.4%	0	0.0%
Energy	2	2.1%	1	1.7%	0	0.0%
Housing	2	2.1%	2	3.4%	0	0.0%
Essential Individual Products	1	1.0%	0	0.0%	1	3.8%
Education	1	1.0%	1	1.7%	0	0.0%
Manufacturing	5	5.2%	3	5.2%	0	0.0%
Handicrafts	3	3.1%	3	5.2%	0	0.0%
Environment	0	0.0%	0	0.0%	0	0.0%
Social/Poverty	1	1.0%	1	1.7%	0	0.0%
Health	5	5.2%	4	6.9%	0	0.0%
Employment	0	0.0%	0	0.0%	0	0.0%
Other	3	3.1%	2	3.4%	1	3.8%
Geographic focus						
Undefined	48	52.2%	37	64.9%	11	44.0%
United States and Canada	4	4.2%	1	1.7%	3	11.5%
Europe	2	2.1%	1	1.7%	1	3.8%
Latin America	6	6.3%	4	6.9%	1	3.8%
Africa	16	16.7%	5	8.6%	9	34.6%
South Asia	11	11.5%	7	12.1%	0	0.0%
Southeast Asia	3	3.1%	0	0.0%	0	0.0%
Asia - Other	0	0.0%	0	0.0%	0	0.0%
Global	2	2.1%	2	3.4%	0	0.0%
Other	0	0.0%	0	0.0%	0	0.0%

Business stage						
Growth	11	11.5%	4	6.9%	1	3.8%
Growth: Early-stage / Emerging / Startup	1	1.0%	1	1.7%	0	0.0%
Growth: Pre-seed / Seed	8	8.3%	8	13.8%	0	0.0%
Mature	4	4.2%	2	3.4%	2	7.7%
Undefined	72	75.0%	43	74.1%	23	88.5%
Fund investment position						
5% <= Own < 10%	6	6.3%	1	1.7%	4	15.4%
10% <= Own < 15%	7	7.3%	6	10.3%	0	0.0%
15% <= Own < 20%	7	7.3%	4	6.9%	2	7.7%
20% <= Own < 25%	15	15.6%	13	22.4%	0	0.0%
25% <= Own < 30%	7	7.3%	6	10.3%	1	3.8%
30% <= Own < 40%	12	12.5%	9	15.5%	3	11.5%
40% <= Own < 50%	3	3.1%	3	5.2%	0	0.0%
50% <= Own < 60%	2	2.1%	2	3.4%	0	0.0%
Own >= 70%	5	5.2%	4	6.9%	0	0.0%
Unknown or NA	32	33.3%	10	17.2%	16	61.5%

Panel C: Comparison of Survey Responses, Sample v. Non-Sample Funds

	Provided Contracts					Did Not Provide Contracts					Difference
	N	mean	p25	p50	p75	N	mean	p25	p50	p75	t-statistic
Market-rate seeking indicator	43	0.67	0	1	1	54	0.72	0	1	1	-0.51
Vintage year	44	2008	2005	2009	2012	45	2007	2006	2009	2011	0.59
Committed capital ($million)	42	92	12	28	74	41	195	12	42	220	-1.57
Fund's initial term (years)	35	9.3	8	10	10	30	8.9	8	10	10	0.68
Latest age of fund	29	7.1	4	6	9	31	7.1	4	6	9	-0.02
# companies in which fund has invested	40	14	4.5	8	12	52	15	7	12	17	-0.05
# funds currently managed by firm	29	3.7	1	2	3	31	2.1	1	2	3	1.64
# funds managed by most senior firm GP	27	8.4	2	4	7	27	3.6	2	3	5	2.02**
Target net IRR	33	0.15	0.1	0.15	0.2	26	0.14	0.06	0.15	0.17	0.30

Table A-2: Operational Impact in GP-PC Contracts and GP-LP Indirect Terms

	All	MRS	NMRS
Investor (LP) return protection	-0.100	0.005	-0.486
	(0.0758)	(0.084)	(0.4401)
Participatory (LP) governance	**0.257*** **	**0.659*** **	0.001
	(0.0868)	(0.1065)	(0.1465)
Limits to manager (GP) discretion	**0.315** **	**0.781*** **	-0.029
	(0.1468)	(0.1529)	(0.4802)
Manager (GP) restrictions	0.012	**0.216*** **	-0.071
	(0.0591)	(0.0738)	(0.1261)
N	94	58	25

***: p < 1% , **: p < 5%, *: p < 10%; Standard errors in parentheses.

Appendix 2: Scoring Notes

Available here.