

The Uncertainty Burden: How Comparable Data Scarcity Systematically Shifts Valuation Risk onto Founders in Emerging Startup Ecosystems and a Framework for Equitable Stakeholder Decision-Making

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ARTICLE INFO	ABSTRACT
Received: 01 June 2026	Infrastructure data, comparable companies' databases, standardised data reporting and previous transaction record facilitate valuation of a startup in a mature market. That infrastructure is not found in the emerging ecosystems. This paper addresses this issue by claiming that the scarcity of comparable data is not a mere technological inconvenience, but also has distributional implications. The way investors deal with uncertainty is to discount valuations, and the way founders end up paying for that is through further dilution and a loss of control. Previous studies have addressed the way investors cope with the risk of valuation, but have been less interested in the identity of the party paying for that uncertainty, or in how the costs of uncertainty can be shifted. Based on the theory of information-asymmetry and on evidence drawn from the venture finance market in emerging markets, the paper identifies the mechanisms that place the burden of uncertainty on founders, and proposes the Equitable Stakeholder Decision-Making Framework. The framework is organized into four parallel stages - Disclosure, Assessment, Redistribution, and Decision - with accompanying parallel founder and investor tracks and a risk-distribution matrix. The paper looks at an illustrative empirical probe of thirty seed and pre-seed rounds, fifteen from Bangalore and fifteen from Lagos, matched across six sectors. Financing in the comparable-thinner ecosystem is concentrated in earlier, smaller, less-committed rounds. The evidence is indicative rather than confirmatory, but it shows a pattern consistent with the proposed mechanism. The framework gives founders language for the burden they carry, investors a transparent way to price uncertainty, and ecosystem builders a focus for institutional reform. Keywords: startup valuation; comparable data scarcity; information asymmetry; institutional voids; emerging startup ecosystems; founder risk; entrepreneurial finance; stakeholder decision-making
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1. INTRODUCTION

Over the last decade, in Asia, Africa, Latin America and Eastern Europe, startup ecosystems have grown at a fast pace as a result of digitalisation, the growth of domestic capital and pro-entrepreneurship policies, and are drawing domestic and international investment. Yet the moment at which capital actually changes hands remains poorly understood in these settings. Valuation of a startup dictates the allocation of equity, control, and financial risk between the founders and investors at the initial stage of the business and at a point when it is most vulnerable. It is not a regular accounting problem: while some companies with years of revenue, tangible assets, and track records can be valued based on that, the value of an early-stage startup can be inferred almost entirely based on what has not yet occurred, and techniques for measuring that are borrowed, incomplete, and largely relative.

One of the main points of reference is comparable data. Valuation practice, formal or heuristic, requires a set of observable peers, firms at similar stages, in similar sectors and geographic locations that have already raised funding in a similar range that can be used to find a range where the new funding deal can fit. The evidence in developed

markets is plentiful. The fact that both parties have some sort of factual anchor because of a transaction record, sector benchmarks, commercial database, etc. makes the resulting number more defensible. This anchor is mostly missing in emerging ecosystems. Less frequently disclosed and fewer, usually not standardised, prior funding rounds. Many ventures serve local markets or address region-specific problems, leaving no meaningful peer at all. If there are no comparable trades, the precision of valuation is not just reduced but it's a totally different ballgame, its investor sentiment and relative bargaining power.

This change occurs with an impact that has been rarely discussed, and this paper is about this impact. If the investor is confronted with unpriceable ambiguity, he is willing and able to take a more conservative attitude and wants to be paid less for the security to protect him from an unquantifiable risk. However, the discount does not go away, it is just pocketed by the founder, who in his need for cash and without any knowledge of how to operate the valuation mechanism, offers more equity and control than is warranted by the evidence. The cost of information not captured is therefore not shared but passed on to the party that the idea comes from and operates the risk. It is not at all dependent on the bad actor, but rather a systemic consequence of an information environment where one party has the ability to charge for ambiguity and other party absorbs it.

While the literature has explored in great detail how investors perceive, manage, and value valuation risk, the impact of a lack of comparable data as a structural disadvantage to the founders and who bears the cost of it has received little attention. This paper makes three contributions. First, it sees comparable data scarcity as a distributional issue, not just a technical estimation issue, and details the mechanisms by which the uncertainty burden impacts founders. Second, it explores informational, behavioural, and institutional conditions that perpetuate this imbalance in emerging ecosystem, as well as stakeholder dynamics. Third, it evolves an Equitable Stakeholder Decision-Making Framework, which provides a common and formalised approach with founders and investors for the purpose of surfacing uncertainty, finding who carries it and distributing it intentionally versus incidentally. The paper proceeds as follows. Section 2 presents a literature review on Startup valuation, Information asymmetry, and Emerging Market venture finance and delineates the gap. The conceptual approach is provided in Section 3. Section 4 analyses the risk-shift mechanism, and Section 5 analyses the stakeholder relationships that support the risk-shift mechanism. The framework is provided in Section 6. A matched comparison of two ecosystems is provided as illustrative evidence in section 7. Sections 8 and 9 discuss implications and conclude.

2. LITERATURE REVIEW

The present paper is at the intersection of three streams of research: the evolution and boundaries of startup valuation methods, the negotiation process between startups' founders and investors under information asymmetry, and the unique characteristics of venture finance in emerging markets. Each looks at a portion of the picture, but none at the distributional issue at its core.

2.1 Startup Valuation Methods and Their Limits

Traditional valuation techniques apply to companies that have a history of earnings and have identifiable comparable companies, both of which are not likely to be true of early-stage startups. Hence, Venture approaches like Venture Capital, Berkus approach, Scorecard approach, Risk-factor summation approach, real-options approach are based on non-financial factors like team quality, market size, technological defensibility, and innovation (Köhn, 2018).

Yet the determinants remain fragmented. Köhn (2018) finds no integrated account of firm-, investor-, and market-level drivers. Berre and Le Pendeven (2023) identify thirty-six drivers across entrepreneur, firm, investor, market, and deal characteristics, while Colombo et al. (2023) likewise report limited consensus on venture pricing. Suganthi and Shanmugam (2023) note that practitioners continue using imperfect techniques because alternatives are limited. The common implication is that startup valuation remains sensitive to the assumptions built into the chosen method.

Even methods specific to a particular start-up are dependent on external calibration. Venture capital approach needs exit multiple, risk factor approach needs baseline and scorecard approach needs benchmarks. Where comparable evidence is thin, these techniques still produce a number, but it increasingly reflects the assumptions supplied by the valuer rather than an independently observable range.

Sahlman (1990) further shows that venture finance relies on governance, staging, and contractual mechanisms designed to manage uncertainty and agency problems; many of these institutional supports are weaker in emerging ecosystems.

2.2 Information Asymmetry and Bargaining Power

Akerlof's (1970) analysis of quality uncertainty provides the basic information-asymmetry mechanism. When a buyer cannot distinguish strong from weak quality, pricing moves toward the expected average. Applied to entrepreneurial finance, investors unable to separate high-quality ventures from weaker ones have a rational incentive to discount the pool, leaving stronger founders to bear a disproportionate cost.

Information asymmetry is also two-sided: the founders know the venture and investors typically know the market, similar transactions and financing structures. Heughebaert and Manigart (2012) demonstrate that there is a negative correlation between investor bargaining power and negotiated valuation irrespective of any other factors. Valuation can thus not just be an estimate for fundamentals; it must also be a result of the bargaining.

There is also evidence that information quality is related to price. Koenig and Tennert (2022) demonstrate that informational updates change startup valuations, drawing the conclusion that informational omissions matter, too. Da Silva et al. (2024) conclude that investors systematically adjust to deal with uncertainty, and Hidayat et al. (2022) link observable and verifiable value drivers with higher valuations and verifiable drivers with lower valuations. The priors of the more powerful bargainer can be more heavily weighted where verification is less.

The literature therefore provides some explanation as to why uncertainty reduces valuations, but it is less clear as to who suffers the discount. This paper views the discount as a distributional transfer, rather than merely investor protection, where the investor decreases their exposure and the founder sacrifices some equity or control.

Prospect theory brings in a behavioural dimension. Early dilution may be particularly significant when founders' future upside and control is diminished as losses have greater weight than equivalent gains (Kahneman & Tversky, 1979).

2.3 Valuation in Emerging Ecosystems

Emerging markets are not only characterised by lower incomes, but also by the absence of specialised intermediaries, disclosure regimes and information aggregators, as defined by Khanna et al. (2010). This institutional-vacuum story is similar in that there is a lack in the system: the missing piece is the infrastructure to link capital with credible evidence. These gaps have a structural nature and they cannot be filled with good intentions.

While commercial databases, industry reporting, and analytical tools have brought greater transparency, it is not uniform. There are still many emerging ecosystems that are not having consolidated deal records, standardised reporting and consistent disclosure making it a challenge to have evidence to value them.

There is evidence to support this concern on a regional level. Applying Da Silva et al. (2024) to the over 50,000 rounds played across Brazil, China, India, Indonesia and South Africa, it is demonstrated that the availability of limited historical financial information prevents the value that entrepreneurs can receive. Joshi (2018) and Kabengele and Hahn (2025) report on the existence of different risk strategies of foreign compared to domestic VCs in India and financial discrimination in African VC, respectively. Across these findings, thinner evidence leaves greater room for the valuer's judgement to shape price.

2.4 The Gap

Altogether, these streams create that valuation methods rely on comparables, and that emerging ecosystems lack such comparables, creating information asymmetry. The literature has collected all the pieces of the problem, except it has not tied them together in asking the distributional question. There is an overwhelming bias in the existing research towards the investor's perspective, and a near-perfect absence of consideration of who ultimately pays for uncertainty when it is priced, whether it is in a defensible way, or what a more defensible allocation would look like. The founder is no longer seen as a cost to control, but as a source of asymmetry. In this paper, the founder's side of the ledger is taken seriously and the scarcity of comparable data is described as a distributional rather than a measurement problem.

3. CONCEPTUAL APPROACH

This paper is not an empirical study, it does not test hypotheses against primary data and it does not set out to be an empirical paper. The distributional issue it focuses on - who suffers from a lack of comparable data - has yet to be framed in a way that an empirical project can examine. In order to be measured, it must be specified, and this means that a mechanism must be articulated, the actors and their incentives must be identified, and an outcome of interest must be defined. The work done here is towards that specification.

The argument has two bases. The first is theoretical, in the sense that it relies on three bodies of work that are already in existence: Akerlof's (1970) analysis of quality uncertainty, which provides the mechanism for how unpriceable ambiguity becomes a discount and the discount becomes a transfer of risk; Spence's (1973) theory of signalling, which provides the means of relief; and Khanna, Palepu, and Bullock's (2010) concept of institutional voids, which explains why the condition is structural rather than incidental. The second is evidentiary: the body of published evidence on the valuation of startups and venture finance in the emerging market is used as a secondary source, so that elements of the framework are not invented to satisfy a desired form but are, rather, copied from published evidence of failures.

Section 6's framework is thus offered as a testable proposition, not a validated instrument. Its stages, tracks and matrix provide observable implications of disclosure behaviour, on what terms deals close, and how disclosure outcomes differ depending on the availability of comparable information that is examined in later research. It is important to remember that the lack of primary data is not the hidden weakness of this study, but is explicitly stated in Section 9. As an intermediate step, Section 7 presents a small illustrative probe, based on secondary rather than primary data, of whether the predicted pattern is evident in actual financing data, as an illustration rather than a test of the mechanism.

4. COMPARABLE DATA SCARCITY AND FOUNDER-CENTRED VALUATION RISK

The lack of comparable data is the condition and the systematic delegation of the valuation risk to founders is the consequence. This section explains both, and outlines the mechanisms that link the two.

4.1 The Nature of Comparable Data Scarcity

Valuation is inferential, in that it takes information that is known and uses it to estimate information that is not. The known base is solid, a venture can be identified against documented funding events of similar ventures, industry standards, and a market whose recent transactions have a reasonable range. Parties debate using the same evidence, and the valuation outside of the range of evidence will need to be explained, although the base does not resolve uncertainty, it does discipline it.

The emerging ecosystems provide a thinner base and thin in the right way, transactions have been done behind the scenes, inconsistently published, and not centralised to any place a founder could see. To complicate this, many businesses are structurally non-comparable by design: a company developing payment rails for informal traders in one national market, or an advisory service focused on a regional crop cycle, may have no peer in the world, not because it's unusually innovative but because the problem is local. The lack of a similar is thus sometimes a characteristic of the venture's relevance and not a failure of the database.

Thus, valuation in such contexts is based on faith and not facts. Both are uncertain about the size of the market they envision, if the model is viable, and if the venture will last long enough to be of value. Both are speculating but, and that's the turning point of the section, not from the same points, and not at the same cost of being wrong.

4.2 Mechanisms Through Which Valuation Risk Shifts onto Founders

An information deficit can give rise to a founder-borne cost in three ways. They function at the same time and complement each other.

The first is the conservative pricing under ambiguity, which is a pooling mechanism of Akerlof (1970) in an equity market. When the investment has a lower failure rate, smaller market size, and lower conversion, then it is the less favourable scenario that the investor takes. The resultant valuation is less than the evidence strictly entitles it to be, and the evidence is not very much. This is a defensible response, not improper conduct. Yet, the price reduction effect

of its use is to convert the investors uncertainty into a price reduction, and that price reduction into equity that the founder gives to the investors, and thus pays for ambiguity that neither created and for which neither can account.

The second is asymmetric capability. Investors, especially institutional investors, negotiate many times, with familiarity with the sector, precedent set in the sector, familiarity with the financial options, and networks where private information is shared. For the founder, particularly a first-time founder, in an environment where a well-developed advisory layer is not established, there is only one negotiation, there is no proof of their own, they do not know the instruments and the investor's offer, they do not have a way to test the assumptions. Without evidence, the party more capable of making up a story for their absence provides the number: the asymmetry is not so much who knows the venture, but who knows the process. That this gap may be reflected in price is not a speculation as Heughebaert and Manigart (2012) report that investor bargaining power has a measurable and independent influence on valuation.

The third mechanism is situational pressure. Founders may feel compelled to cut back on payroll, extend their runway, and sometimes have no viable second bid, which investors might interpret as another justification for discount. Psychological pressure is another: founders are more vulnerable than investors with a portfolio of businesses to the venture's survival. As a result, they may be willing to accept terms that they consider to be unfavourable, especially if the amount of advisory resources is inadequate to contest the investor's assumptions.

These mechanisms are not an indication of misconduct. Both sides can be acting rationally in light of their respective positions. This is why the outcome is systemic; it does not need the bad guy, it just needs an information environment where one side can price in ambiguity while the other side is forced to price in ambiguity. This is the uncertainty burden described in this paper.

These mechanisms may be expressed as formal propositions, and the set of such propositions forms the diagnostic part of the model created in Section 6.

Proposition 1. The less comparable market data that can be used to value an early-stage venture, the larger the valuation discount that investors apply to make up for the unpriceable uncertainty.

Proposition 2. This share of founders, as opposed to the parties, goes up as the uncertainty-related discount increases and as investors' bargaining power increases.

Proposition 3. The founder-borne share of the discount is higher the less there is institutional intermediary density, deal database, advisory infrastructure, disclosure norms, for a given level of comparable-data scarcity.

Proposition 4. The effects of inexperience and the absence of institutions are not simply additive; an inexperienced founder in an institutionally weak environment is hit twice, since inexperience is most harmful in an environment where institutions are most underdeveloped.

4.3 Implications for Emerging Ecosystems

It has a greater impact than just the round itself. When founders give away disproportionate equity at the first stage, they are hit by the effects of that on their incentive, as their residual claim is reduced, as well as any effects on their future rounds, as they become less important, as well as the effects on their control, and often the sense that their effort and risk have gone unrewarded, which as is well-known, is a key driver of disengagement and premature exit.

The impact at the ecosystem level is corrosive to the trust. When founders view valuation as arbitrary, they view investors as the enemy; when investors can't test the claims, they continue doing their best to price defensively. Equilibrium is a market of low trust, where competent entrepreneurs choose rather to not invest at all, which is the worst scenario for emerging ecosystems. The evidence of discriminative pricing in African VC by Kabengele and Hahn (2025) provides a glimpse of how rapidly such an equilibrium becomes self-sustaining.

This is the reason it is essential that the remedy should be a framework and not a method. The current methods do not make an incorrect estimation; they are neutral on the distributional question; they provide a party with information on how to obtain a number but not on whether or not the risk to which it pertains has been fairly allocated. This is a process that renders the uncertainty visible, names its bearer and enables its mobility. This will be discussed in Section 6.

5. CHALLENGES, UNCERTAINTIES, AND STAKEHOLDER DYNAMICS

The uncertainty issue continues to be transferred as it becomes a part of the negotiation. This section discusses the problems, perceptions and relationships that it is reproducing.

5.1 Challenges Under Limited Market Comparables

The first issue is the lack of instruments that would be appropriate for the case and the ease with which they can be adapted. As Section 2.1 illustrates, discounted cash flow relies on believable projections, multiples rely on comparable firms, and startup-specific alternatives rely on an external calibration. In its absence, the techniques can still generate an analytical sounding number, but one with a very strong reliance on the assumptions of the ones providing the inputs.

The second challenge is that there are intangible attributes that are incredibly valuable in a young company: how hard the team works, how much customers trust it, and how enduring a tech insight is. Founders find it difficult to convert them into actual proof, and investors find it difficult to test them. The outcome is a systematic discount on exactly the type of strengths that early stage investing is supposed to uncover.

This is exacerbated by the institutional thinness, for there do not exist any centralised deal databases, any reporting standards, and neither side has defensible expectations of what a fair range should look like. The discussion of the valuation shifts from the merits of the venture to the relative strengths of the parties and the outcome is more accurately called a settlement than an estimate.

5.2 Uncertainty and Risk Perception

Valuation under scarcity is more a negotiation of tolerable risk: since the object of the valuation is a set of claims about the future, which can be evaluated only in light of these claims, the number that emerges reflects more each party's perception of risk than any property of the venture. In this state, investors are known to suffer from ambiguity aversion. Ellsberg's (1961) example of how decision makers prefer known risk to unknown risk, even if the expected value of both is the same, describes this situation exactly: not knowing how much something is worth is like being at risk, and risk will be priced into that discount.

In the absence of proof, investors rely on proxies, education, team, hype, and other investors. These are not without value, but they are pointedly and methodically weighted in favour of the familiar and credentialed, and directed against founders who deserve to be judged on their merits, but whose merits are not easily discerned by an outsider. The conclusion of Joshi (2018) that foreign and domestic investors take different risk strategies in the same market is not what could be considered a surprise if perception is doing a lot of the work.

For founders, it is a mirror image, very involved in the business, they have optimistic priors that they cannot prove and investors will not buy into. The difference between the two valuations is therefore more of an interpretation than of arithmetic, and the difference is usually felt like an accusation; the founder feels distrust, the investor feels naïveté. If the founder has no evidence, then he will lose to the party with the stronger position. In short, uncertainty is not just the price of the transaction, it is the medium of power in the transaction.

5.3 Stakeholder Dynamics and the Case for a Shared Process

The relationship between a founder and an investor is a structural tension. Founders prefer a high valuation to hold on to the company and investors prefer a low valuation to protect their return on investment. This tension is circumscribed by evidence in a data-rich environment and both argue in a space neither controls.

In principle, other actors could supply the missing discipline, the intermediary layer which Khanna et al. (2010) call a missing element of emerging markets. Governments can force disclosure, standardise reporting, and establish databases for comparables; and accelerators, mentors, advisors, universities and industry associations can offer the information, precedent and advocacy that could give founders a foundation for challenging an investor's assumptions. It is this corrective layer that is thin in emerging ecosystems and is a major cause of the imbalance, and in mature ecosystems, it does just this.

This implies that a remedy must have a particular form. The issue is not possible to be addressed through giving either party a better calculator as the shortfall is not computational; it is not even possible to solve the issue by urging investors to be generous, because their conservatism is rational. This can only be dealt with by altering the process by which the two parties get to a number, uncovering uncertainty, instead of absorbing it, and acknowledging its distribution, instead of assuming it, and giving mechanisms, to move it deliberately. That is, a shared decision process, not an improved estimate.

6. A MODEL OF VALUATION RISK ALLOCATION UNDER COMPARABLE DATA SCARCITY

The structure outlined in this section is a model of how risk of valuation can be split between the founders and the investors, and how greater equity can be achieved in the split under certain conditions. It is composed of two parts. The first is a positive model that models the status of any particular deal and the forces that put it there. The second is a normative process, a sequence of steps by which the two parties can intentionally, but consciously, take a deal to a better distribution. The model provides an understanding of why the load is distributed as it is; the process provides a description of what can be done about this.

6.1 Design Principles

The model is based upon three commitments, which are based on the above failures. Uncertainty has to be brought up to the surface, rather than absorbed, as that is the point of the pathology of Section 4: somewhere on the way, the ambiguity evaporates into one figure, and becomes invisible and incontestable. Second, risk allocation ought to be a decision, and not a default, of both parties and not of the one who has the stronger hand. Thirdly, the parties' actions have to be symmetrical, otherwise giving a remedy to one side but not the other would be tantamount to the same asymmetry as the remedy was supposed to address.

6.2 The Model: A State Space of Risk Allocation

There is a two-dimensional space where any financing round in the early stage can be found. Vertical Dimension represents the deal's residual uncertainty, that is, how much uncertainty around the venture's outcomes is actually unknown at the time of the investment. The horizontal dimension is burden share, which is the percentage of the cost of that uncertainty borne by the founder from 100% shared to 100% founder borne. Each deal lies in a point with a normative meaning: the upper left corner where high uncertainty is mostly absorbed by the founder is the uncertainty burden; the lower right corner where well understood deal has its residual risk shared is the equitable target.

This is an analytical result and the advantage of this representation is that it makes the two dimensions independent of each other. Uncertainty and burden share do not move together: a deal can carry high uncertainty and share its cost fairly, or carry little uncertainty while placing most of its cost on the founder through bargaining imbalance. This distinction is hidden in a single valuation number. Separating the dimensions shows that a founder disadvantaged in a low-uncertainty deal faces a power problem different from one disadvantaged in a high-uncertainty deal, and the two require different remedies.

Position of the deal is determined by the force balance on each dimension, each of which is related to one of the earlier propositions. The key upward tension along the uncertainty dimension is similar data scarcity (Proposition 1): the fewer the number of observable peers, the more has to be taken on faith, and the higher the deal hangs. In opposition to it, mutual disclosure is the main downward force (Proposition 5), which makes what is unknown merely undisclosed, and reduces uncertainty prior to the fixing of a particular number.

On the burden-share dimension, the most important factor driving the negotiation towards the founder is investor bargaining power (Proposition 2). They offer direct support, as Heughebaert and Manigart (2012) demonstrate that the bargaining power of investors systematically affects the valuation negotiated, beyond the impact of the venture's fundamentals. This force is different from uncertainty: it is not based on the amount unknown, but on who pays, and a strong investor will demand a favourable split, even in a clear cut one. These forces have two additional factors which determine their strength. The thinness of the institution intensifies the entire system (Proposition 3) and reinforces Khanna et al.'s (2010) institutional voids account. An inexperienced founder cannot spot an unfair term, cannot gather the evidence and data that would reduce the level of uncertainty, and cannot threaten to walk with the

same credibility as a seasoned founder, so that every other force is multiplied by the lack of founder experience (Proposition 4).



Figure 1. The model: valuation risk as a field of forces. Each deal occupies a point defined by residual uncertainty and founder burden share; problem forces (Propositions 1-4) drive deals toward the uncertainty burden, corrective forces toward the equitable target.

There are three corrective forces that work against them, that drag a deal towards the equitable region. Founder sophistication enables a founder to challenge assumptions, to present evidence, and to identify reasonable terms. Standardised contract templates enable the use of redistributive instruments, and do not require the invention of new ones on a case-by-case basis. Competition among investors makes a founder's options leverage, and any demand for a more equitable offer more real.

This is the disturbing prediction that the model makes: the corrective forces are weakest where the driving forces are strongest. The thinnest ecosystems, fewest experienced founders, least circulation of good templates, least investor competition, are precisely those that take deals furthest into the uncertainty burden. The markets that most need the corrective forces are least able to produce them, and the condition is self-reinforcing. This is not a fault with the model, but is its key empirical claim and it is testable. If the level of venture quality is kept constant, deals in comparable-thin ecosystems should not only have lower valuations, but also a wider dispersion of valuations than deals in comparable-dense ecosystems, as dispersion is the observable imprint of uncertainty associated with pricing. Da Silva et al. (2024) compare over 50,000 financing deals in five emerging markets and offer a preliminary answer: the lack of past financing data has a measurable impact on the value entrepreneurs receive.

Proposition 5. The structured disclosure reduces the founder borne discount through reducing the residual uncertainty.

Proposition 6. Contingent instruments, staged capital, milestone linked terms, and revisit triggers, lower the founder borne component of the uncertainty cost of an equivalent fixed up front discount, with the same investor downside protection.

6.3 The Process: Moving a Deal Toward Equity

The model identifies the problem, and then, the process is applied to the problem. Four stages guide founder and investor along parallel tracks and operationalise the corrective forces just described to give them a concrete procedure instead of leaving them to act by chance.

The first step is disclosure, where both parties put their information on the table before proposing a figure. The founder provides proof in the form of traction, cohort behaviour, unit economics, and team history to back up the missing comparables, and the investor makes assumptions and references to any offer (Spence's, 1973). Informational updates can then cause valuations to shift, consistent with Koenig and Tennert (2022).

In the second stage of assessment, the parties co-locate the deal in the model's state space. This is the key move: it makes explicit the question that is implicit in the ordinary process, namely that question of how much of this deal is actually risk, and who is being asked to carry that risk? The burden is contestable because the position of the deal is named.

In the third phase (redistribution), the parties choose redistribution mechanisms to bring the deal closer to the equitable area. The uncertainty can be mitigated by staged capital, where a smaller initial tranche gives time for evidence to build up before the valuation is finalised, Gompers (1995) describes this as a central VC reaction to this. The bearing can be shifted by milestone based terms, valuation adjustment terms, where the founder would accept conditionality for having less up-front dilution and the investor would get a higher valuation on the face of it for downside protection based on observable outcomes. The instruments are not new, but it's their reframing that's the contribution. The machinery for redistribution is already in place: venture-capital contracts are typically a separation of cash-flow and control rights, and each of these rights is allocated contingently, as shown by Kaplan and Strömberg (2003). In normal circumstances these are investor safeguards, in this process they are adopted in tandem to push a deal out of the founder-borne corner.

Decision is the fourth stage, where the parties agree on a valuation, and an explicit revisit trigger, a defined condition on which it is reassessed. This is the most significant deviation from normal procedure in the process. In the normal method, a discount given at the time of maximum ignorance is irremovable, and uncertainty, once cleared up in a better light, cannot be of any help to the founder, who has paid for it. The logical next step of considering a discount as the cost of uncertainty is to make it contingent, meaning that if ambiguity was priced, it should be re-priced when the ambiguity is resolved.

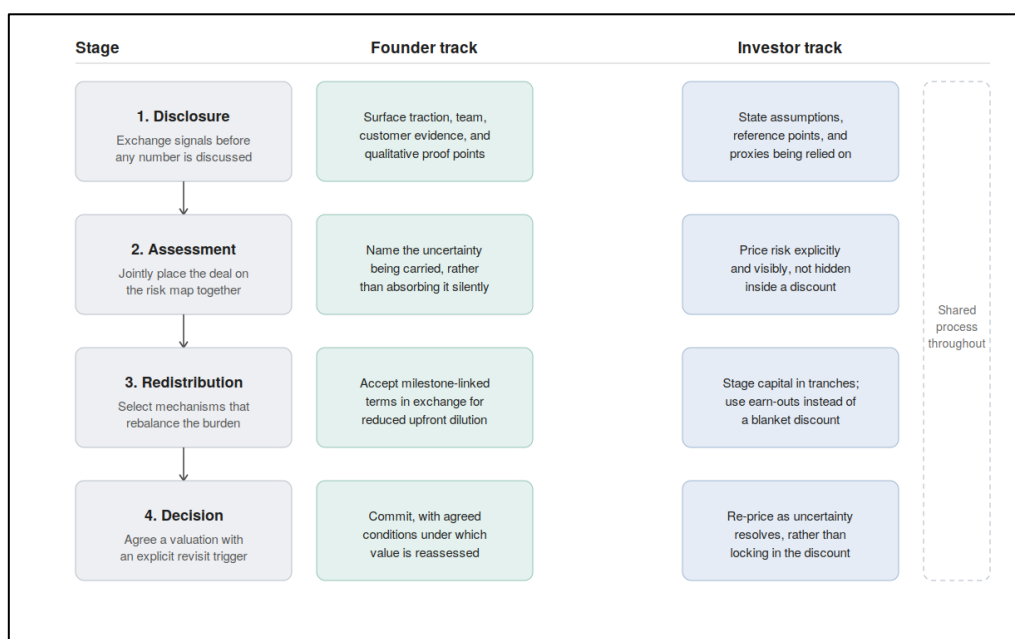


Figure 2. The decision process: four stages through which founder and investor move along parallel tracks, operationalising the corrective forces of the model.

6.4 What the Model Changes, and Its Boundary

Three consequences follow. The uncertainty burden is rendered visible, and a burden that can be named can be negotiated. The investor has legitimate, but redirected, conservatism, no one has to take on unpriced risk, only price it via contingent, observable mechanisms, not permanent transfers of equity. The intermediary layer that Section 5 noted is missing and becomes a clear player, as well as accelerators, advisors and ecosystem bodies, which spread the templates and provide founder education to the model, play a corrective role.

The contribution's scope should be clearly stated and it is the most important claim of the model. It assumes that both parties are willing to participate in the process, and if an investor has a strong bargaining power, he has no incentive to initiate the process. Even when instruments are known there are two frictions that hinder adoption. First, the enforcement gap: milestone-linked and revisit-triggered terms are only as good as the extent to which they can be enforced and, in the thin places where the burden is greatest, enforcement is slow and unreliable, which makes the most natural solution to the problem the same problem, an enforcement void. The incomplete-contracting problem formalised by Aghion and Bolton (1992), when contracts cannot specify every future contingency, control falls back to one of the parties and in thin ecosystems it is the investor. Second, contingent provisions create moral hazard and renegotiation risk: Milestones can be gamed, and a revisit can be a new opportunity for the stronger party to exploit its advantage. These frictions are captured in a final proposition.

Proposition 7. The use of contingent redistribution instruments grows less when the infrastructure for enforcing contracts becomes less robust and the cost of verifying milestones becomes greater, so the institutional gaps that give rise to the uncertainty burden are also the ones that reduce its remedy, while also the corrective forces of the model are weakest where the burden is greatest.

This dependence is not hidden but is a real constraint, and it points to where the leverage for reform is: not on the generosity of the individual investor, but on the creation of the conditions, enforceable contracting, templates, investor education and investor competition under which the corrective forces can operate.

7. ILLUSTRATIVE EVIDENCE: A MATCHED COMPARISON OF TWO ECOSYSTEMS

The above model is conceptual and the main prediction is not presented here but rather is provided for future testing. These are preliminary tests, but this section is a step towards that. It depicts a small, self-made data set that examines one testable, measurable outcome of the model in two ecosystem types. It has as its goal the proof that the model's pattern is evident at least at the surface of the empirical data and to propose the sort of empirical research that the framework can provoke.

7.1 Design and Data

The model suggests that ecosystems that are less comparable will be more conservative on the valuation of early-stage startups than will ecosystems with more information. A direct test would involve valuation and dilution measures that were adjusted for venture quality, exactly the sort of data that emerging ecosystems do not report and that this paper posits is quite scarce. A matched comparison provides an indirect but measurable probe in their absence. Two ecosystems were selected for comparison on comparable-data-density, Bangalore, India (comparable-dense) and Lagos, Nigeria (comparable-thin), and they are similar in stage of development. Both are major centres of large emerging economies, but India's is supported by significantly more robust intermediary deal tracking infrastructure, disclosure activity and venture history than is Nigeria's, a difference highlighted by Sections 4 and 5.

Thirty seed and pre-seed rounds from 2021-2024 were compiled in total, fifteen from each ecosystem, and matched across six sectors: fintech, e-commerce, healthtech, agritech, insurtech, and proptech. These were each taken from primary reports and compared to startup databases; only those with a disclosed dollar amount, verifiable host city, and identifiable stage were kept, while all others that could not be confirmed on all three were removed and recorded. This is not a representative sample of the dataset, but rather a matched illustrative set designed to make it more difficult to attribute any systematic difference between the two columns entirely to sector composition.

7.2 What the Data Shows

Two patterns emerge, and their interpretation must be handled with care. Table 1 summarises the comparison.

Measure	Bangalore (dense)	Lagos (thin)
Number of rounds	15	15
Mean round size	US\$2.37m	US\$2.03m
Median round size	US\$2.60m	US\$2.00m
Seed rounds	12	5
Pre-seed rounds	3	10

Table 1. Matched seed and pre-seed rounds, Bangalore (comparable-dense) versus Lagos (comparable-thin), 2021–2024. Round-size figures are approximate and uncontrolled for venture quality; they are reported for illustration, not as a test of the valuation mechanism.

The one obvious tendency is that there is a significant difference in the time when capital is raised. In this similar-dense ecosystem, 12 out of 15 were designated as seed and only 3 were pre-seed. The ratio is the reverse in the comparable-thin ecosystem: ten out of 15 were pre-seed and five seed. This is in line with the mechanism of Proposition 1. Where a comparable set of evidence is less abundant, founders and investors seem to be grasping for the earlier, smaller and less formally-priced round, the one that locks in less at the time when the least is known. On this reading, Stage is a response to data scarcity of a similar sort: less evidence is what drives capital to the point where a firm valuation can most easily be deferred.

The second pattern relates to round size and that is more ambiguous, intentionally presented as such. The mean size of rounds was somewhat larger in the dense ecosystem (~US\$2.37m) than the thin one (~US\$2.03m), and the median also was higher (US\$2.60m compared to US\$2.00m); the trend is in the direction predicted by the model, but the difference is not large and the number of rounds is not big enough to give any weight. More significant is that the dispersion of round-size was indeed slightly greater in the dense ecosystem (CV=0.64) than in the thin one (CV=0.53) in contrast to the naïve interpretation of the Section 6.2 dispersion prediction. This is more of a teaching tension: by the model's own description, this is a comparison of valuations that are controlling for the quality of the venture, while the comparison here is simply quantities, round size, without any controls. The round-size data cannot explain the predicative power of the valuation dispersion and, it should not be suggested otherwise.

7.3 Reading the Evidence Honestly

There are three cautions to be taken regarding the dataset. It is not able to control for the quality of ventures and the differences observed could be partly due to differences in the pricing of comparable ventures. It has nothing to do with valuation or dilution, which is what the model is really asking for, and there is an indirect but plausible relationship between the two. Its sector matching is intentional but not perfect, one sector contributes 2 dense rounds for every 1 thin round, another sector the reverse.

One additional comment bolsters, not weakens, the exercise. One matched sector, proptech, sees the pattern turn upside down: a single sector was larger and later-staged than its counterpart with a dense ecosystem. This is not a weakness of the argument, but is exactly what should be expected if the uncertainty burden is a tendency generated by an information environment and not a law. A model in which the sectoral gap would always have to move in the same direction would be too rigid to be believable. The power of the matched design is that it does not average away such reversals, but rather makes them apparent.

The data is illustrative and reveals the following pattern which is characteristic of the model: The more scarce comparable data is, the more financing is oriented towards less-committed and more conservative structures, most clearly in the stage where financing is raised. It does not provide any mechanism, nor is it offered as one. The benefit of it is that it translates the conceptual argument into an empirical programme that can be tested with richer data.

8. DISCUSSION AND IMPLICATIONS

The analysis is relevant for founders, investors, and institutions of the ecosystem.

The initial contribution, called diagnostic, is for founders. If a piece of a valuation is driven by an element of uncertainty, not just venture quality alone, the founder can still fight back by removing the uncertainty. Cohort evidence, unit economics, and demonstrated traction becomes strategically valuable, as it decreases what the investor must price as unknown.

The argument is not one of morality to an investor. Investors rely on future pipeline and follow-on rounds, which can be undermined by ongoing conservative pricing that can affect founder incentives. In Stage 3, the contingent instruments remain with the purpose of providing downside protection but do not make the uncertainty discount permanently founder borne.

For ecosystem builders and policymakers, the highest-leverage response is to improve the evidence environment. Scarcity of comparable data is solved at the source with consolidated deal databases, disclosure norms and standardised early stage reporting. In those areas where such infrastructure is not easy to create, the redistributive instruments can be easier to understand and use with stronger intermediary support, founder education and standardised term templates.

More generally, valuation is not merely an estimation process but a distributional institution as, in the context of incomplete information, it also distributes risk and reward among the parties. Valuation function is hidden when seen through the lens of measurement only, and the burden is less noticeable.

9. CONCLUSION, LIMITATIONS, AND FUTURE RESEARCH

This paper has aimed to demonstrate that, in the new start-up environment, the absence of similar data is not merely a technical constraint but a structural fact with distributional consequences. In the absence of observable peers, investors rationally price uncertainty conservatively and founders take on a significant portion of the cost as a result of a higher time pressure and weaker bargaining position. The price of missing information is therefore passed towards the party least able to refuse it. The uncertainty burden does not depend on misconduct; that is why it is systemic and why it persists.

In response, the paper proposes the Equitable Stakeholder Decision-Making Framework, a four-stage shared-decision making framework (Disclosure, Assessment, Redistribution, and Decision), which requires each founder and investor to take a symmetrical role, which explicitly specifies the deal on a risk-distribution matrix, and which removes the deal from founder borne default with the help of contingent instruments. It is not a new value computation interpretation but a new interpretation of risk allocation of any value computed.

These claims were subject to three restrictions. First, the paper is conceptual; its mechanism is based on theory and secondary evidence and the framework has not been tested in real negotiation. Second, 'emerging ecosystems' is used here as a broad coherent category, and in practice the ecosystems in India, Nigeria, Brazil and Vietnam, for example, differ materially in their institutional depth and capital availability; their strength of the mechanism is likely to be variable. Third, as discussed in Section 6.3, the structure assumes that both parties are willing to engage in a shared process, which an investor with controlling leverage may not be.

Each limitation suggests an avenue for empirical research. The central mechanism gives rise to a testable prediction: there should be a positive relationship between valuation discounts, after controlling for venture quality, and the decline in comparable data, and there should be an inverse relationship between founder dilution at seed stage and the density of the disclosed deal history of a market. Section 7 is a first illustrative step: a matched comparison of Bangalore and Lagos rounds reveals the predicted move towards less-committed, earlier-stage structures in the thinner ecosystem, but does not attempt to provide the mechanism. Comparing across the broader ecosystem would test the hypothesis that the burden is greater as the institution thins out and, the framework itself could be evaluated by comparing the results of accelerator cohorts that were trained on structured disclosure with those that were not. It is presented, therefore, as a beginning to be tried and the questions it raises are the most important ones.

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