Appropriate Capital

Deal Structures for early stage Impact Investing

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INSEAD Private Equity Group Project

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Executive Summary

- Ankur Capital is an Indian micro fund engaged in early stage impact investing against debt like returns. Given the high risk involved in this type of investment, Ankur Capital seeks for deal structures to mitigate or limit its risk, without weighing the entrepreneur down too much.

- Based on literature research and expert interviews with INSEAD, Santa Clara University and multiple impact investing funds, this study identified eight capital structures that could be used, spanning the entire range from straight debt to common equity: Straight debt, Venture debt, Revenue Participation rights, Demand Dividends, Convertible debt, Debenture with Warrants, Preferred Equity, Common Equity.

- Royalty debt with revenue charges (1-2%) is found to be the most appropriate form of funding for Ankur Capital and other early stage impact investors. This structure combines repayment (min 1.5X – 3.0X) with ability to repay (rather than fixed interest), aligns interests of investor & entrepreneur, is simple & easy to track (fraud insensitive), its limited charges on revenues reduce default risk and a fixed maximal duration with no upside cap allows for modest upside potential.

- Sources emphasized that impact investment should not just drive social impact but also financial returns that match its risk profile in order to be sustainable. An industry-focused investment portfolio with limited geographic spread can improve cost effectiveness of managing a small scale, early stage fund. Support structures for entrepreneurs like incubators, P2P coaching networks and government guarantees can be leveraged to further mitigate risk.

Table of Contents

Introduction – What is impact investing

How to define impact investing?

- While there is no strict definition, we have assumed Impact Investing as referring to investments with the aim to create positive impact beyond financial return. Consequently, impact investments "require" management of social and environmental performance in addition to control of financial risk and return. More specifically, we distinguish impact investing from more socially-responsible investments, which aim to minimize negative impact rather than proactively create positive benefits
- In terms of business sectors, impact investments typically "address" basic needs (agriculture, housing and water), and basic services (e.g. education, health, energy and financial services)

Who is involved in the market?

- Globally, the range of impact investors covers philanthropic foundations, commercial financial institutions and high net worth individuals, which use different capital structures by region and relevant business sector as well as financial and impact objectives

How large is the market / opportunity?

- In 2010, J.P.Morgan estimated the potential capital need for impact investments targeting the part of the global population earning less than $3,000 per year to be $400bn to $1,000bn over the next 10 years

Context – The Landscape of Impact Investing

Over the last 20 years, the number of specialised commercial funds in the impact investing space has risen tenfold. Capital committed to impact investing (via private equity style active managers), has risen from \$4bn - \$12bn over the same period.

Decreasing Fund / Deal Size

Since 1940's	*Since 1900's*	*Emerging*	*Emerging*	*Since 1970's*
Development Finance Institutions	**Private Foundations**	**Social Impact Growth Capital**	**Social Impact Seed Capital**	**Microfinance**
• Focus: invest in debt or equity of publicly- and/or privately-owned firms or banks in developing countries	• Typically program-related investments (PRIs) from grantmaking (rather than endowment) side; donate to communities	• Focus: invest debt / equity in entreprises that provide basic services to the BOP; at least \$500k in revenues and proven busines model	• Focus: invest equity / debt in entreprises that provide basic services to the BOP; first revenue and business plan	• Focus: micro loans to individuals or groups, who set up micro enterpises to generate more income for poor families
• DFI have \$1bn to \$30bn in AuM and make a % of that available for investment every year	• Foundations greatly vary in number and size from one several billions in AuM, of which they can invest 3-5% every year across relevant development areas	• \$12bn total, rapid growth; fund sizes vary – majority has \$50m; size per ticket is in range of \$2-5m; few sector specialists but most focus on 1 region / country	• Small sub-set of SI PE, on avg. only \$10-20m in AuM per fund, ticket size <\$2m, regional focus but little or no focus on sector though exceptions exist	• MFI vary in size but most foucs on single region or country and cater several thousand customers, that have size of \$100 in EMs to \$10k in US
• Objective: predominantly economic development, but also social impact or support of political will	• Objective: depends on a foundation's mission and programs; typically, from education to science and social services	• Objective: provide social or financial returns; most funds prioritize one point, avg. IRR of 8-12% (debt) and 12-15% (equity)	• Objective: provide social or financial performance, target IRR range from 0% to 30%; in the developing countries, focus on basic needs / services for BOP	• Objective: provide access to financing in low income or rural areas, the return targets vary from 0 to double digit returns but social impact is often first

Project Sponsor and Scope of Project

Project Sponsor – Ankur Capital

- Ankur Capital is a micro fund based in Mumbai, India. For its first fund, the team raised US$ 10m from multiple investors which it plans to invest in 15 to 20 start-ups. The fund's primary objective is to create social impact, but it also aims to generate debt-like financial returns for investors (IRR: 8-10%). To date, the team has made two equity investments.
- Ankur Capital provides capital for strong enterprises that impact low-income communities in India. To qualify for investments, investees further need to be incorporated, have a business plan and successfully completed first sales.

Scope and Objective of the Project

- The aim of the project is to help Ankur Capital identify alternative, novel funding structures to reduce risk, optimize exit options (non-trade sale / IPO) and move beyond plain vanilla equity investments without restraining portfolio companies from growing.
- Over the course of this project, the team has interviewed multiple impact and venture capital investors operating in different regions (including Africa, India, the UK and US) and business sectors with the objective to identify common challenges, potential exit options or alternative capital structures for early stage investments in the impact space.

Approach

Week 1-2 | *Week 3-4* | *Week 5* | *Week 6*

Data gathering & analysis → **Interviews** → **Synthesis** → **Review**

Project kick-off – *Findings update* – *Findings update* – *Intermediate presentation* – *Final presentation*

Data gathering & analysis (Week 1-2)

- Validation of goal, scope & approach
- Information / contacts request
- Establish way of working
- Desk research / literature analysis*
- Schedule interviews

Interviews (Week 3-4)

- Expert interviews*:
  - INSEAD
  - Santa Clara University
  - CAF Venturesome
  - Grassroots Business Fund
  - AlphaMundi
  - Social Venture Fund

Synthesis (Week 5)

- Consolidate findings
- Construct framework and overview of possible structures
- Pros / cons and applicability of structures
- Other risk mitigating options
- Create intermediate presentation
- Review of overall findings with Ankur

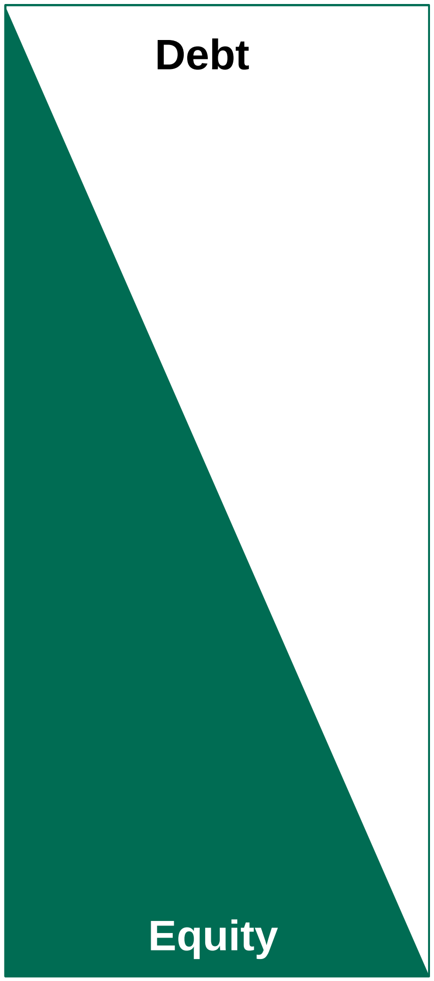
Review (Week 6)

- Incorporate feedback from Ankur review
- Finalize findings
- Complete final report

* See references for an overview of literature sources and interviews

Overview of deal structures considered

Capital



Category	Deal structure
Debt	Conventional Debt
	Venture Debt
Royalties	Revenue Participation
	Demand Dividend
Hybrids	Convertible Debt
	Debenture with Warrants
Equity	Preferred Equity
	Common Equity

Conventional Debt

How it works
- Company issues bonds to investor
- Interest 8-20% (prime +2-4%)
- Terms ranging from 3-10 years
- May be secured against available assets
- Junior to bank debt, senior to other debt & equity
- In case of default, significant protection is provided by seniority and collateralisation against tangible assets

Benefits
- Straightforward to structure & easy to explain to entrepreneur
- Gives early returns / constant income to investor
- Some security to investor (subject to risk of underlying business)

Drawbacks
- Drains cash flows of company in early stages
- Senior debt may create difficulty raising future capital
- Misaligned incentives (e.g. temptation for asset substitution)
- Requires comprehensive due diligence, monitoring and trust
- Hands on relationship vital (e.g. frequent visits and provision of value services to compensate for lack of alignment and control)
- Regulatory hurdles as typically requires a banking licence in India

Variations
- Debt maturity (bridge loans vs. long term debt)
- Early repayment (increased flexibility for entrepreneur)
- Secured & unsecured, hard or soft collateral (intangible assets)
- Covenants (positive & negative: constrain entrepreneur but provide greater security & control to investor)

Examples
- Rarely if ever used at seed stage

Best suited to
- Established businesses with large, stable & predictable cash flows and significant tangible assets

Preliminary conclusions for Ankur
- Not well suited for early stage impact investment

Venture Debt

How it works
- Unsecured loan is provided to the company
- Interest 10-25% (prime +3-5%)
- Terms ranging from 1-5 years
- Commence with an interest only grace period then introduce capital repayments
- For tech companies usually collateralized with intangible assets (IP, brand) or something the entrepreneur cares about
- Often combined with warrants on equity -> potential upside
- In case of default, some protection arises from seniority relative to equity but less than if secured by tangible assets

Benefits
- Recoup investment early with a defined exit and good returns
- Further upside potential when combined with warrants

Drawbacks
- Risky – similar to equity as unsecured against tangible assets
- Restrict the entrepreneur (take cash from the business when they most need it) although can be alleviated with a grace period
- Need to conduct very thorough due diligence
- Limited opportunity to assert control (i.e. no voting rights)
- Requires profits or positive cash flows
- Need a skilled entrepreneur
- Need good corporate governance

Variations
- Grace periods (to mitigate impact on early cash flows)
- Warrants on equity (to increase potential upside)
- Covenants with claims on cash flow

Examples
- UK Government created a social growth fund of £600m. A small seed stage fund was set up (~£10m) to ensure deal flow.
- Subject of Santa Clara University research

Best suited to
- Technology companies with material intangible assets – in particular in Indian impact space = although not necessarily cash flow positive
- Usually in tandem with equity investments or co-investment with equity holder to reduce due diligence costs and ensure greater alignment of interest

Preliminary conclusions for Ankur
- Better suited to venture capital rather than seed funding stage

Revenue Participation Rights (revenue royalties) / Demand Dividends (cash flow royalties)

How it works
- Similar to conventional debt, however repayments are proportional to revenue flows rather than interest on principal
- Claim fixed % of revenue (2-5%), or cashflow (10-30%)
- Can use repayment floor (1.5 – 3X)
- Can use repayment cap (2-3X) or duration cap (8 year)
- Medium term, 5-10 years
- In case of default or company underperformance, protection will depend on collateral and seniority of claim to assets which need to be specified in contract alongside claim on cash flows

Benefits
- Easy to observe revenues, reduces monitoring costs
- Start to recover investment quickly in line with revenue growth
- Removes money when the business can afford it
- Equity remains with entrepreneur (flexible & retain control), relevant in India where entrepreneurs don't like to be diluted
- Lower due diligence costs / no need to value equity
- Leads to a better alignment of interests
- Use of duration cap allows to capture upside potential

Drawbacks
- Claims on profits or cash flows more susceptible to manipulation
- Business needs sufficient revenue, also matched to timing of CFs (repayment frequency TBD)
- Drawing down cash may limit growth of the business (especially in low margin businesses)
- Difficult to forecast revenues & set appropriate % claim
- Problematic in cyclical, long product development or capex-heavy industries

Variations
- Caps: payback can be capped at 1.5-3.0x investment to guarantee IRR to investor while limiting exposure of company / entrepreneur
- Grace periods (to mitigate impact on early cash flows)
- Tiered according to revenues (e.g. 1% to $1m, 2% to $2m …)
- Demand Dividends are similar, but levied on profits or CFs

Examples
- Established model in UK
- Used previously in South Africa
- Referenced by INSEAD & Santa Clara faculty

Best suited to
- Companies with early, stable and predictable revenue flows
- Low capex business models

Preliminary conclusions for Ankur
- Promising, but only suitable for non-cyclical businesses with low capex requirements and early, predictable revenue generation
- May work best when negotiated / reviewed on an ongoing basis, with payment levels linked to achievement of tangible milestones

Convertible Debt

How it works

- Unsecured loan converting to equity subject to mandatory, optional or contingent triggers (in India, regulation requires compulsory conversion)
- Comparable returns to venture debt but offers greater upside potential via conversion into common equity
- In case of default, limited protection as converted into equity. Some protection may be provided by ratchet provisions which ensure investor receives a larger share of residual equity.

Benefits

- Increased protection as senior to equity
- More flexible than straight debt for entrepreneur
- If successful: clear exit strategy & early cash out
- Potential for participation in upside
- Avoids requirement to value the company at inception
- No banking licence required in India

Drawbacks

- Usually converts back to equity and hence leaving the convertible debt holder with the same exit challenge
- Same as venture debt otherwise
- Can be difficult to explain to entrepreneur
- Can be difficult to get any interest payments whatsoever
- Can potentially limit upside for the entrepreneur
- Still dependent on exit from equity (limits exit opportunity)
- Interest payments are taxable most countries, including India

Variations

- Mandatory or optional conversion (fixed value / fixed shares)
- Contingent conversion (variety of triggers: revenue / EBITDA targets, debt-equity ratio, subsequent capital raisings); ratchet conversion (e.g. annual rollover) to give blended return
- Early, partial buyback to offer greater upside to entrepreneur
- Adjust interest payment to optimize tax and cash flow impact

Examples

- Common in angel and early venture capital financing

Best suited to

- Companies with untried business models but significant potential for scalability

Preliminary conclusions for Ankur

- Well suited to the impact investment space as predetermined conversion ratios avoid need to value the company at an early stage when business prospects are uncertain, however poses same challenges as equity when considering exit avenues

Debenture with Warrants

How it works
- Unsecured loan is issued with fixed maturity along with rights to purchase additional equity at a predetermined date
- The hybrid structure allows for an equity stake to be acquired at some time in the future
- Similar to convertible debt but brings an infusion of new cash
- In case of default, limited protection for investor in line with low seniority of debentures and diminished value of warrants

Benefits
- Very flexible for investor as can choose whether to get equity
- Brings an additional cash infusion to the business when exercised
- The debt portion is typically simple to structure
- Protects on downside and allows for participation in any upside
- If successful: clear exit strategy + early cash out

Drawbacks
- Option / warrant component requires valuation of equity and accurate estimate of growth prospects in order to fairly price
- Complex & expensive solution for small deals (structuring and setting up of warrants in addition to the loan requires two sets of documents because warrants can be traded separately)
- Can be difficult to explain to entrepreneur
- Realisation of equity stake is again contingent on exit avenues

Variations
- Mandatory or optional conversion (fixed value or fixed shares)
- European or American (fixed or variable exercise dates)
- Different kind of options, triggers and contingencies

Examples
- Some examples may overlap with convertible debt

Best suited to
- Distressed situations where exit opportunities exist

Preliminary conclusions for Ankur
- This hybrid is in principle well suited to the impact investing space, it is however a very advanced structure and for deals the size we are discussing here it is likely to expensive to implement
- The lack of exit opportunities for equity investments must also be considered, and hence conversions to equity remain problematic

Preferred Equity

How it works

- Similar to common equity, but with a set dividend, usually no voting rights but some covenants to protect interest in company
- Unsecured but senior to common equity
- In case of default, protected only to the extent that preferred dividends can be paid out of any residual equity on liquidation

Benefits

- Potentially quite simple to structure
- Good upside potential, depending on conversion provisions
- Provides early return to investors subject to success of company
- If company runs in to cash flow issues, dividend can be accrued and paid out at a later stage at discretion of company
- Dividend payment modification provide flexibility to entrepreneur

Drawbacks

- Exit opportunities limited for typical impact investments
- Preferred stock might be hard to resell in the secondary market due to lack of control features, prior conversion might be needed
- Complicated product may be difficult to explain to entrepreneur
- No guaranteed return or realisation opportunities

Variations

- Conversion to common at fixed rate or variable rate
- Optional or contingent conversion
- Dividend payments may be cumulative, optional or deferrable
- Performance dividend (linked to milestones) to allow buyback by entrepreneur, to more closely align incentives

Examples

- Very common in in impact investing (growth and/or venture capital)

Best suited to

- Fast growing companies with financially strong founder able to follow through and support entrepreneur buyback / equity exit
- Where control is less important than partaking in potential upside

Preliminary conclusions for Ankur

- Offers some benefits in the impact investment space, but the lack of equity exit opportunities is still a major drawback
- Therefore performance dividends may prove to be the key feature

Common Equity

How it works
- Investor purchases minority stake alongside entrepreneur, which provides capital for growth and an implicit company valuation
- After purchase of equity stake in company at specific valuation, return is realized via exit through sale of equity at higher valuation
- In case of default / liquidation, junior to all other claims

Benefits
- Unlimited upside
- Strong alignment of interest (subject to reliability of entrepreneur)
- Voting rights for investor
- Flexibility for entrepreneur
- Greater equity improves ability to raise further debt or equity (also signals confidence of investor to future investors)

Drawbacks
- Very difficult to value early stage companies and an appropriate price relative to entrepreneur's stake
- Valuation set on entry may complicate subsequent capital raisings (e.g. down rounds at lower valuations)
- Exit opportunities limited for typical impact investment (i.e. trade sale or IPO unlikely, typically only through entrepreneur buyback)
- Fast return on investment very unlikely

Variations
- Contingent value rights (CVRs): address uncertainty of future potential of company by capturing upside via fixed price at inception and increased / decreased stake dependent on future valuations

Examples
- Frequently used by friends, family and business angels in seed and growth stage impact investing
- CVRs common in M&A situations in pharmaceutical industry due to high uncertainty over value of R&D investment payoff

Best suited to
- Investments with large upside and prospects for equity exit opportunities (ideally founder buyback but also trade sale / IPO)

Preliminary conclusions for Ankur
- Vanilla equity investments not a good solution in the impact space as control and seniority of SI investor is 'undermined'
- Major challenges: valuation of company / exit opportunities

Evaluation

Best ● ◕ ◑ ◔ ○ *Worst*

Instrument	Return	Risk	Flexibility	Alignment	Implementation	Best Suited For
Conventional Debt	◔	◕	◔	◔	◕	• Clear investment plans / projects and predictable outcomes
Venture Debt	◑	◕	◑	◑	◑	• Technology start-ups
Revenue Participation	◑	◕	◕	◕	◑	• Stable, cash-flow positive, low capex
Demand Dividend	◑	◕	◕	◑	◔	• Stable, cash flow positive, low capex
Convertible Debt	◕	◕	◕	◑	◑	• Companies with tangible assets (growth)
Debenture Warrants	◕	◑	◑	◑	◑	• High upside potential (scale and growth)
Preferred Equity	◕	◔	◕	◕	◕	• High growth potential, negative cash flow, low asset base
Common Equity	●	○	●	●	●	• Clear route to exit, (later rounds, IPO), management buyout

Risk vs. potential rewards for investors:
- Level of return & upside participation (e.g. capped)
- Level of risk & downside protection (collateral)
- Timeframes (term) & certainty of exit (routes)

Degree of flexibility & support for entrepreneur:
- Level of support / constraint on entrepreneur Flexibility to renegotiate terms, raise further capital
- Ability to achieve social impact, achieve scale

Alignment of interests for investor & entrepreneur:
- Ownership, upside & dilution of founder
- Working towards same milestones & objectives
- Control (voting rights, covenants, enforceability)

Costs, complexity & challenges to implement:
- Upfront costs (diligence, negotiating terms)
- Ongoing costs (monitoring, governance)
- Difficulty articulating / entrepreneur skill required

Best for businesses based on following characteristics:
- Sector, stage of company
- Cash flows & cash needs
- Assets (size & composition)
- Management skill / sophistication
- Capital market maturity

Alternative ways to Reduce Risks

Spread risk and reduce exposure

- Diversify / spread risk on **investment** side:
  - Work with the government to set up social incubators (requires geographic proximity of investments)
  - Elevate the industry as a whole (multiple investments in same industry with cross-pollinisation)
- Reduce financial exposure on **investor** side:
  - Syndicated investments (other VCs and angels) – reduces exposure, not the risk
  - Combine with government grants, charity funding, microfinance

Alternatives

- Minimize default risk
  - Obtain government guarantees
  - Maintain a local focus
  - Set up clear measurement of results
- Help the entrepreneur succeed
  - Establish peer to peer & mentor networks
  - Get help from experienced entrepreneurs
- Agree exit timeframe and route with entrepreneur before investing, with clear fallback strategies

Recommendations for Impact Investing & Ankur Capital

Capital structure recommendations

- Debt instruments are fundamentally more suited for early stage impact investing:
  - Limited upside (no next Facebook)
  - Entrepreneur retains control in long term
  - Some (early) repayments limits risk
  - Defined exits
  - Lower risks
- Revenue royalties seem a good way to link repayment to ability to repay (rather than fixed interest) and are also:
  - Simple & easy to track (fraud insensitive)
  - Align interests of investor & entrepreneur
  - Limited charges on revenues reduce default risk
  - Minimal repayments of 1.5X - 3.0X
  - Fixed max duration with no upside cap allows for upside potential
  - Flexibility around tiered revenue charges

General recommendations

- Impact investment should drive social impact AND financial returns that match its risk profile in order to be sustainable
- Attractive financial returns allow to scale the fund, which in turn improves its cost structure
- In order to maximize cost effectiveness of managing small scale, early stage investments, consider:
  - Reducing industry diversity
  - Reducing geographic spread
- Tapping into or creating other support structures for entrepreneurs besides the VC will alleviate costs and mitigate risk. E.g. incubators, P2P coaching networks, government collaborations
- Cooperate with experienced businessmen and (offline) local social business networks

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