



UCD Michael Smurfit
Graduate Business School



Who Are Impact Investors?

Dr Theodor Cojoianu, Assistant Professor in Finance, Queen's University Belfast & Visiting Research Fellow, University College Dublin

Prof Andreas Hoepner, Full Professor in Operational Risk, Banking and Finance, University College Dublin & Member of the EU Technical Expert Group on Sustainable Finance

Dr Yanan Lin, Postdoctoral Research Fellow, University College Dublin



Global Impact Investing AUM



Source: GSIA (2018)

It is estimated that the total size of the impact investing market is \$715billion, according to the 2020 Annual Impact Investor Survey of The Global Impact Investing Network (GIIN).



But first, a quick review of definitions

- Impact investing, like other forms of investing that integrate environmental, social and governance (ESG) aspects into the investment process (e.g. responsible investing) has (i) social and environmental as well as (ii) financial aims.
- **Impact investing differs** from other forms of ESG investing in its **prioritization of its multiple objective functions**. For instance, investors who signed the United Nations Supported Principles for Responsible Investing (PRI) commit to the PRI's principles on six ESG ambitions only where “consistent with their fiduciary responsibilities” as it is clearly stated in the principles' preamble (PRI 2015).
- PRI signatories recognize ESG objectives as subordinate to fiduciary/financial objectives, which contrasts them with impact investors who set financial and societal aims on par.
- We **define impact investing** following Hebb (2013) as the sub-set of environmental, social and governance (ESG) investing, which does not focus on return for risk as primary single objective but **exhibits a dual objective function by aiming to simultaneously deliver (i) social and environmental benefits and (ii) financial returns for a desired investment risk level**.



UCD Michael Smurfit
Graduate Business School



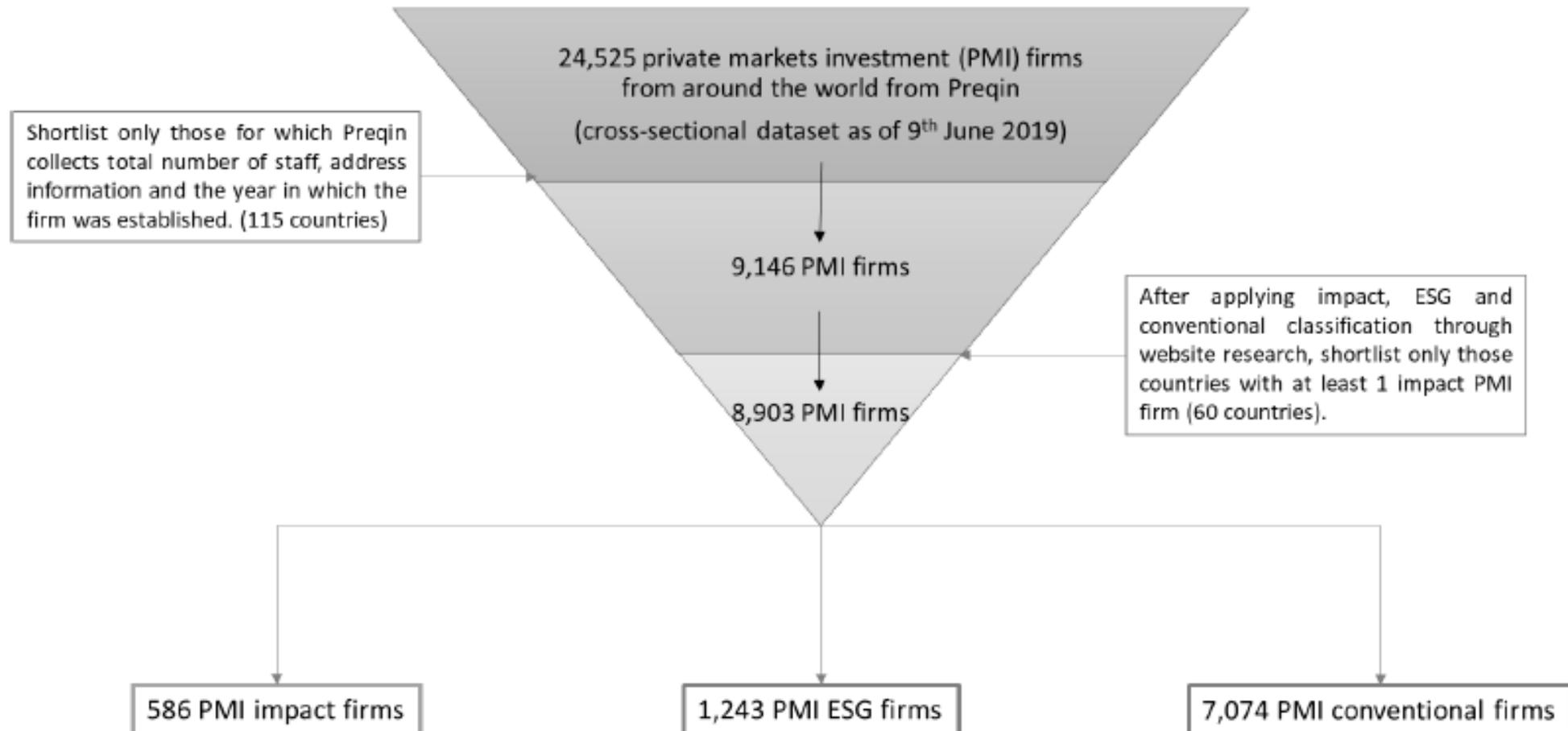
Who are Impact Investors?

We seek to answer three underexplored research questions:

1. What types of impact investing firms can be identified?
2. How do they differ in their investment style, ownership and organisational structure from conventional and ESG investors?
3. How are the partnerships pursued by impact investors different compared to those of ESG investors?

Data

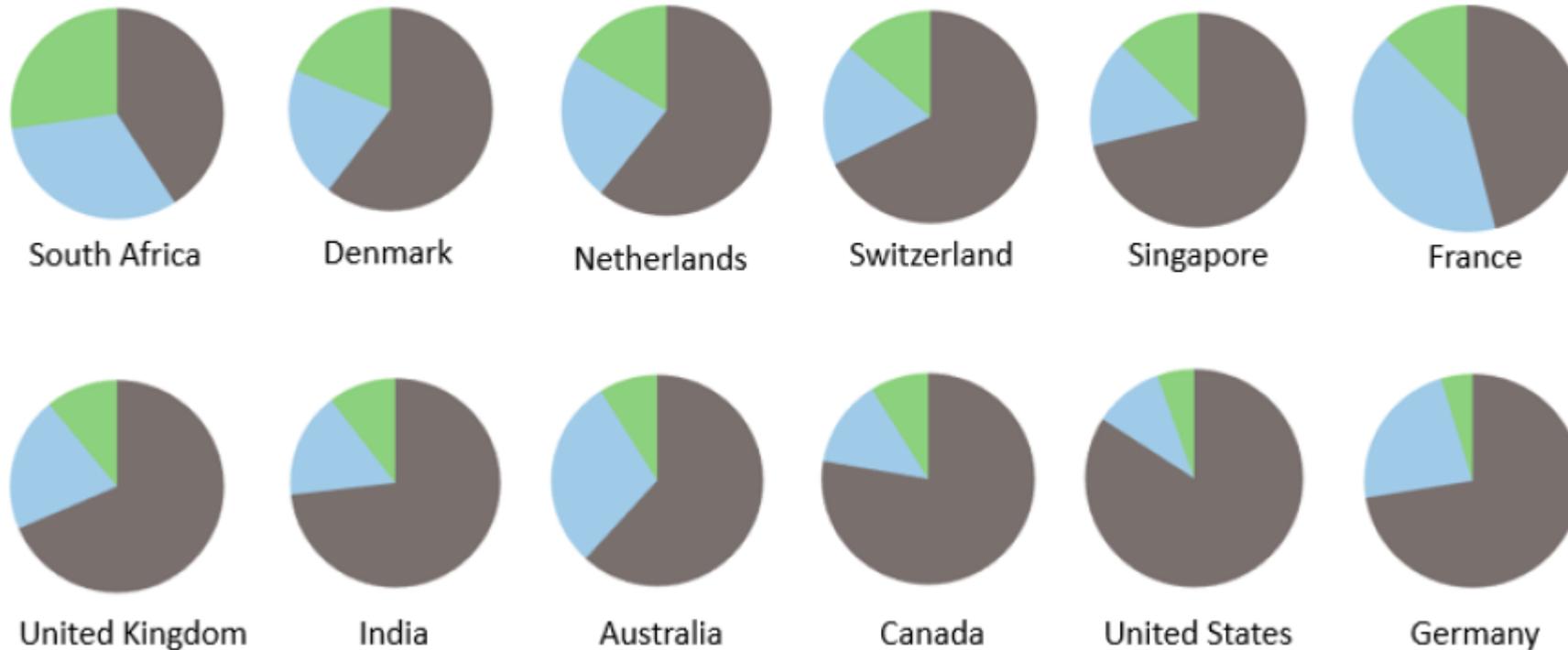
Figure 1: Shortlisting methodology of private market investment firms included in dataset. Source: Authors with data from Preqin.



Exploratory analysis - top 12 Countries by impact inv. firms

Figure 2: Top 12 countries sorted by the percentage of impact PMI firms as a percentage of total PMI firms, for countries with more than 9 impact firms.

- Conventional Firms
- ESG Firms
- Impact Investing Firms





Exploratory analysis – country distribution by impact inv. firms

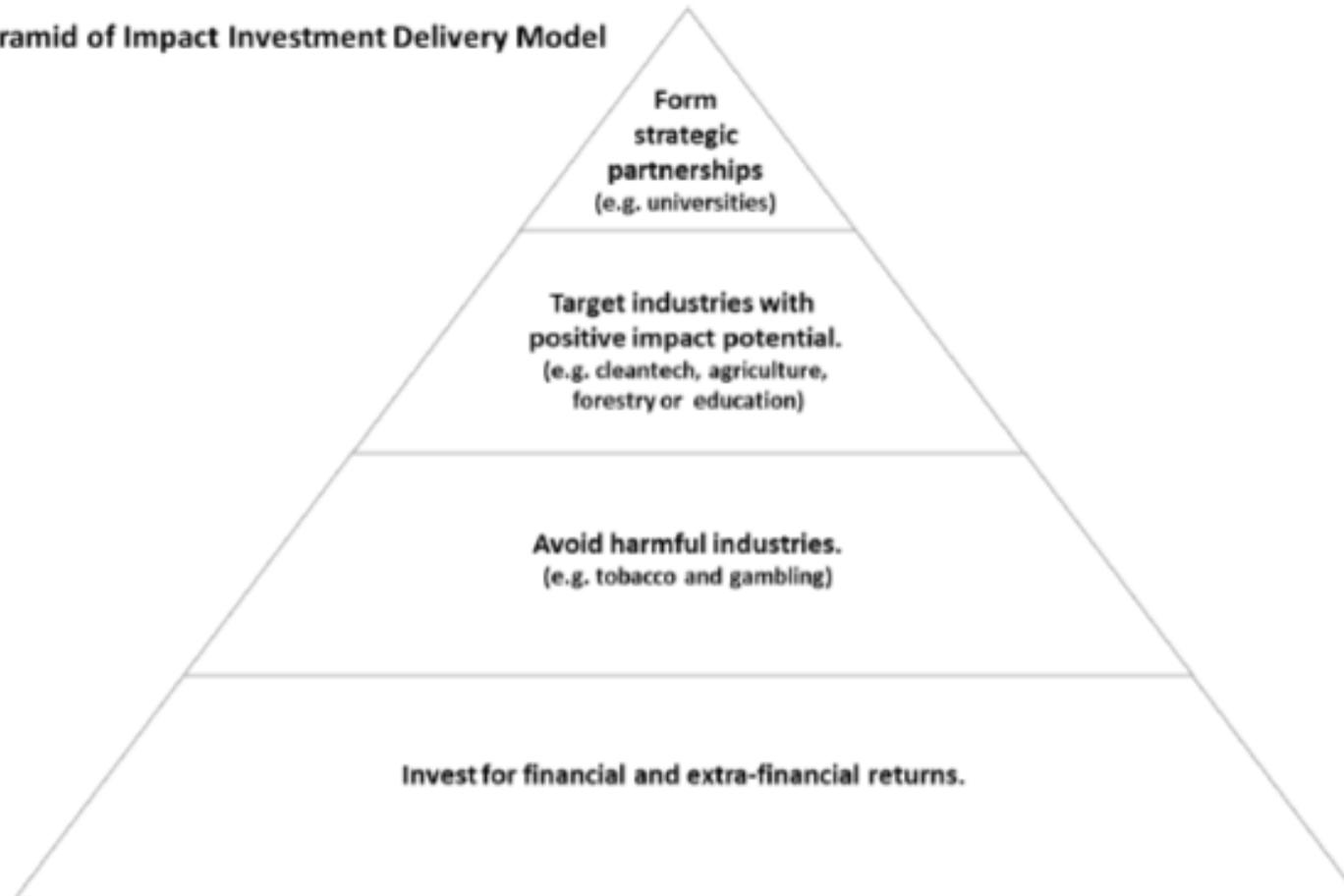
Table 1: Distribution of impact, ESG and conventional PMI firms across the world. Countries displayed are only those with more than 5 impact firms and sorted by number of impact firms. Source: Authors with data from Preqin.

Country	Impact	ESG	Conventional
US	221	421	3,398
UK	69	130	433
France	28	93	103
Canada	23	35	202
Netherlands	22	31	82
South Africa	18	21	27
India	16	25	112
Switzerland	14	19	69
Singapore	14	18	79
Germany	13	63	200
Australia	11	36	76
Denmark	9	10	29
Spain	8	24	82
Norway	8	10	28
Sweden	6	26	62
Israel	6	13	81
Finland	6	16	40
Brazil	6	20	68
Mauritius	5	7	8
Japan	5	11	100



Impact investment delivery model

Pyramid of Impact Investment Delivery Model





Our statistical model

Our analysis is focused on unveiling which of the firm's investment strategy, ownership and partnership characteristics make it more likely to be an impact investing firm. Our data is organised as a cross sectional dataset of 9,146 private markets fund management houses around the world from the Preqin data platform as of June 2019. We employ a binary logistic regression model with robust standard errors. The full model specification is the following, where ϵ_i is the stochastic error:

$$\begin{aligned} Fund\ Type_{Impact, ESG, Conventional} = & \beta_0 + \beta_1 * \ln(Total\ Staff) + \beta_2 * \ln(Firm\ Age) + \\ & \beta_3 * Investment\ Strategy + \beta_4 * Firm\ Ownership + \beta_5 * Firm\ Partnerships + \\ & \beta_6 * Country\ Effects + \epsilon_i \end{aligned}$$



Investment style of impact vs ESG vs conventional PMI investors

Table 2: Country and asset class focus, firm size and firm age model

Model variables	Model 1a	Model 1b	Model 1c	Model 1d
	Impact = 1 Conventional & ESG = 0	Impact = 1 Conventional = 0	Impact = 1 ESG = 0	ESG = 1 Conventional = 0
Log (Total Staff)	0.342*** (0.035)	0.374*** (0.036)	0.223*** (0.046)	0.216*** (0.030)
Log (Firm Age)	-0.084 (0.062)	0.005 (0.065)	-0.385*** (0.079)	0.387*** (0.051)
PE Focus	-0.028 (0.171)	-0.127 (0.172)	0.272 (0.264)	-0.288** (0.133)
Real Estate Focus	-0.428** (0.190)	-0.377* (0.198)	-0.495* (0.266)	0.195 (0.144)
Natural Resources Focus	0.676*** (0.164)	0.862*** (0.179)	-0.004 (0.191)	0.904*** (0.149)
Infrastructure Focus	-0.190 (0.252)	-0.519* (0.276)	0.486 (0.316)	-1.030*** (0.257)
Observations	8,901	7,656	1,817	8,292
Pseudo R-squared	0.107	0.139	0.0574	0.132
Log-likelihood	-1926	-1773	-1068	-3037

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. We employ a logistic regression model.

Note: we display those countries which had at least one statistically significant result across any of the models 1a-d. Several countries have been omitted from the regression due to multicollinearity.



Target industry investment focus models

Industry focus variables	Model 2a Impact = 1 Conventional & ESG = 0	Model 2b Impact = 1 Conventional = 0	Model 2c Impact = 1 ESG = 0	Model 2d ESG = 1 Conventional = 0
Impact Industries				
Agriculture and Forestry	1.138*** (0.125)	1.257*** (0.131)	0.763*** (0.145)	0.579*** (0.109)
Cleantech	0.741*** (0.123)	0.848*** (0.127)	0.361** (0.147)	0.526*** (0.096)
Education	0.255* (0.134)	0.370*** (0.138)	0.062 (0.147)	0.270*** (0.097)
Food and Nutrition	0.171 (0.122)	0.207* (0.126)	0.015 (0.143)	0.150 (0.096)
Healthcare	0.002 (0.110)	-0.079 (0.113)	0.050 (0.127)	-0.013 (0.079)
Waste Management	-1.493* (0.808)	-1.861** (0.939)	-0.831 (0.657)	-1.420** (0.680)
Water	-0.447 (0.734)	-0.529 (0.859)	-0.364 (0.588)	0.359 (0.637)
Fossil Fuel Industries				
Extractives and Fossil Fuel Energy	0.068 (0.123)	0.063 (0.127)	-0.093 (0.150)	0.200** (0.092)
"Sin" Industries				
Gambling	-1.926* (1.094)	-1.836 (1.133)	-1.870* (1.039)	-0.049 (0.389)
Tobacco	No Impact Investing Firm Involved in Tobacco	No Impact Investing Firm Involved in Tobacco	No Impact Investing Firm Involved in Tobacco	-0.049 (0.663)
Weapons	-1.182 (1.085)	-1.174 (1.125)	-1.199 (1.084)	-0.384 (0.506)



Ownership of impact vs. ESG vs. conventional PMI Firms

Ownership Variables	Model 3a	Model 3b	Model 3c	Model 3d
	Impact = 1 Conventional & ESG = 0	Impact = 1 Conventional = 0	Impact = 1 ESG = 0	ESG = 1 Conventional = 0
Bank Spin-off	0.710 (0.510)	0.883* (0.520)	0.397 (0.653)	0.550 (0.426)
Captive Arm of Bank	-0.203 (0.501)	-0.070 (0.519)	-0.151 (0.579)	0.296 (0.348)
Captive Arm of Corporation	0.514 (0.321)	0.613* (0.338)	0.308 (0.442)	0.500* (0.267)
Captive Arm of Government	1.594*** (0.480)	1.649*** (0.504)	1.411** (0.597)	0.877* (0.485)
Corporate Spin-off	0.847** (0.398)	1.113*** (0.406)	0.311 (0.527)	0.851** (0.336)
Government Spin-off	2.158** (0.972)	2.071** (0.964)	1.629 (1.121)	2.368 (2.149)
Independent Firm	0.655** (0.293)	0.796*** (0.307)	0.399 (0.411)	0.493** (0.246)
Constant	-3.574*** (0.468)	-3.504*** (0.491)	-1.197** (0.593)	-2.522*** (0.352)
Country Controls	YES	YES	YES	YES
Firm Age and Size Controls	YES	YES	YES	YES
Asset Class Controls	YES	YES	YES	YES
Observations	8,901	7,656	1,817	8,292
Pseudo R-squared	0.110	0.143	0.0605	0.133
Log-likelihood	-1917	-1764	-1065	-3032

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Logistic regression model.



Partnerships for impact investing delivery models

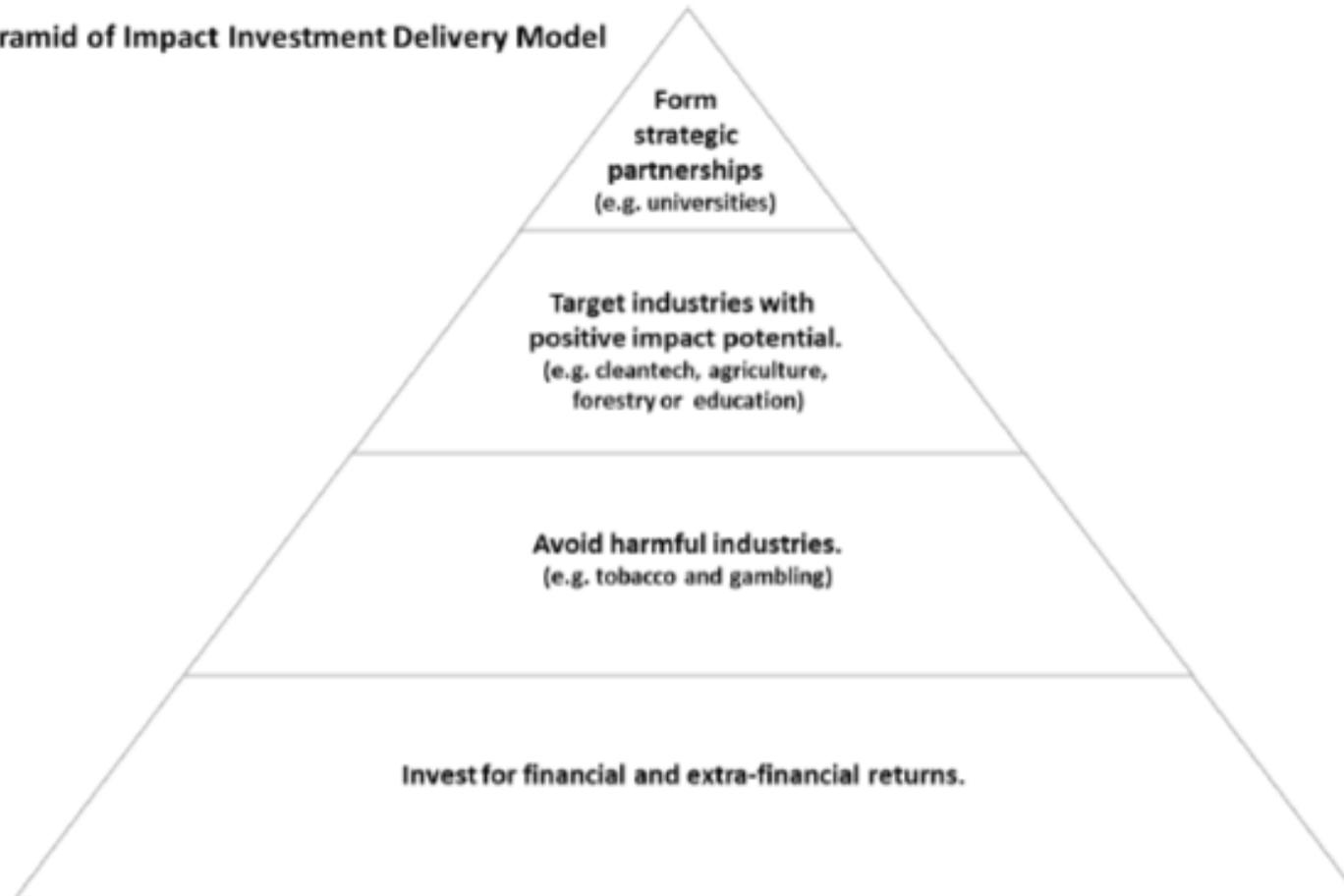
Partnership Variables	Model 4a Impact = 1 ESG = 0	Model 4b Impact = 1 ESG = 0
Partnerships mention	0.252** (0.116)	
Partnerships with Corporations		0.387* (0.213)
Partnerships with Industry Associations		-0.198 (0.321)
Partnerships with Other Investors		0.072 (0.197)
Partnerships with Academic Institutions		0.514* (0.302)
Partnerships with Government		0.064 (0.351)
Partnerships with NGOs		0.143 (0.180)
Partnerships with Finance and Business Services Consultants		0.268 (0.240)
Constant	-0.746 (1.375)	-0.837 (1.403)
Country Controls	YES	YES
Asset Class Controls	YES	YES
Firm Ownership Controls	YES	YES
Employees and Firm Age Controls	YES	YES
Observations	1,817	1,817
Pseudo R-squared	0.0626	0.0649
Log-likelihood	-1062	-1060

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Logistic regression model.



Impact investment delivery model

Pyramid of Impact Investment Delivery Model





UCD Michael Smurfit
Graduate Business School



Thank you very much for your attention!

We are delighted to take any questions.

Dr Theodor Cojoianu, Assistant Professor in Finance, Queen's University
Belfast & Visiting Research Fellow, University College Dublin

t.cojoianu@qub.ac.uk

Prof Andreas Hoepner, Full Professor in Operational Risk, Banking and
Finance, University College Dublin & Member of the EU Technical Expert
Group on Sustainable Finance

Dr Yanan Lin, Postdoctoral Research Fellow, University College Dublin