



The PECCS[®] Classification

(Private Company Classification Standard)

May 2024

Quantifying Private Markets
London | Singapore

DO PRIVATE MARKETS NEED THEIR OWN CLASSIFICATION?

- Existing company taxonomies are focused on industrial activity (GICS, SIC, NACE) and do not always match private sector activities like infrastructure.
- The **value of companies is driven by more than industry classes**. Other dimensions like their business model or the type of customer or market are highly discriminating factors when it comes asset value.
- Beyond “Core” or “Core+”, what are the **key risk characteristics of private companies that can be used to group them systematically?**
- A complete taxonomy of private firms allows using the information available to classify companies *objectively* into different risk peer groups.

PECCS

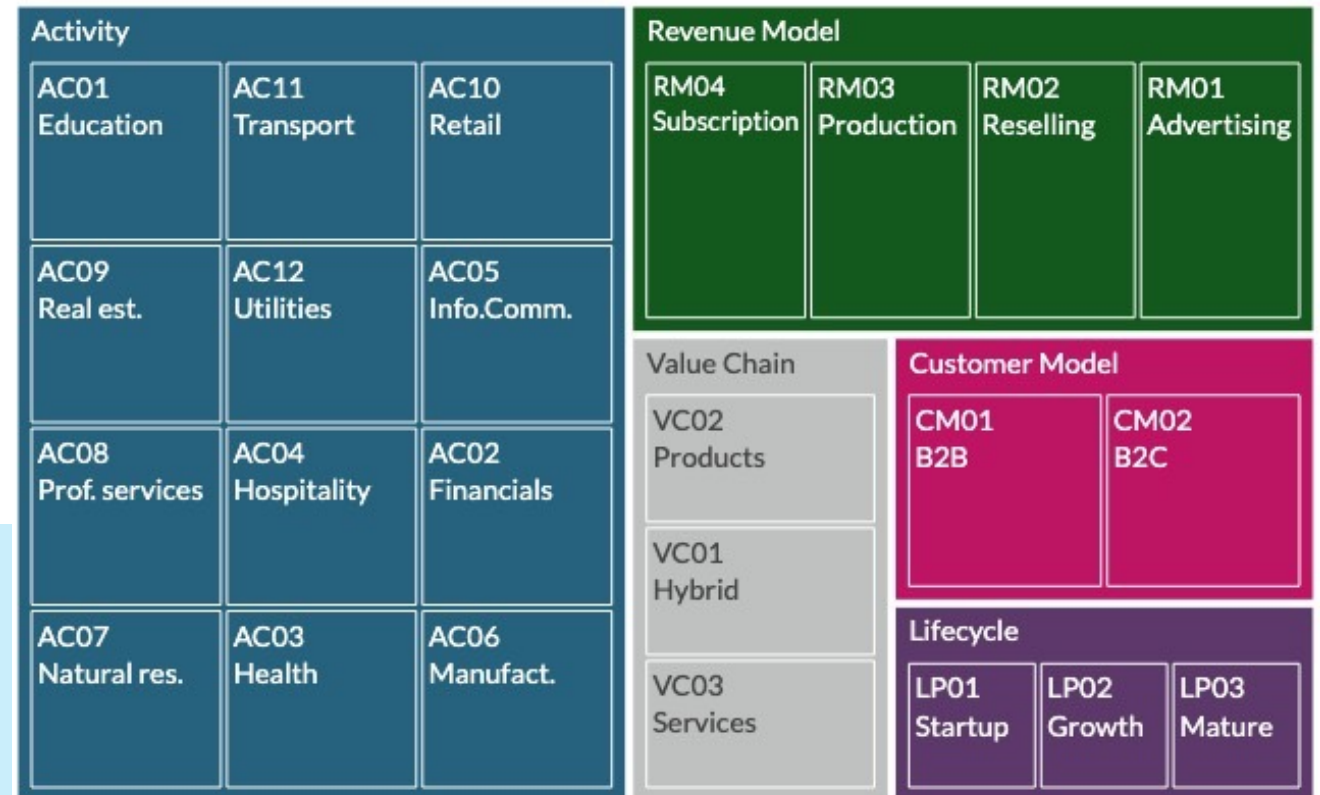
THE PRIVATE COMPANY CLASSIFICATION STANDARD

The five PECCS pillars

1. Industrial Activity (12 classes, 67 subclasses)
2. Revenue model (4 classes, 14 subclasses)
3. Lifecycle phase (3 classes, 7 subclasses)
4. Customer model (2 classes, 8 subclasses)
5. Value chain (3 classes, 6 subclasses)

Key features

- The 5 pillars are objective and independent
- Exhaustive and mutually exclusive classes
- Activity pillar is mapped to other schemes (NACE, GICS, TICCS)



Find out more here: [link](#)

PECCS GOVERNANCE

A transparent governance ensuring market endorsement & adoption



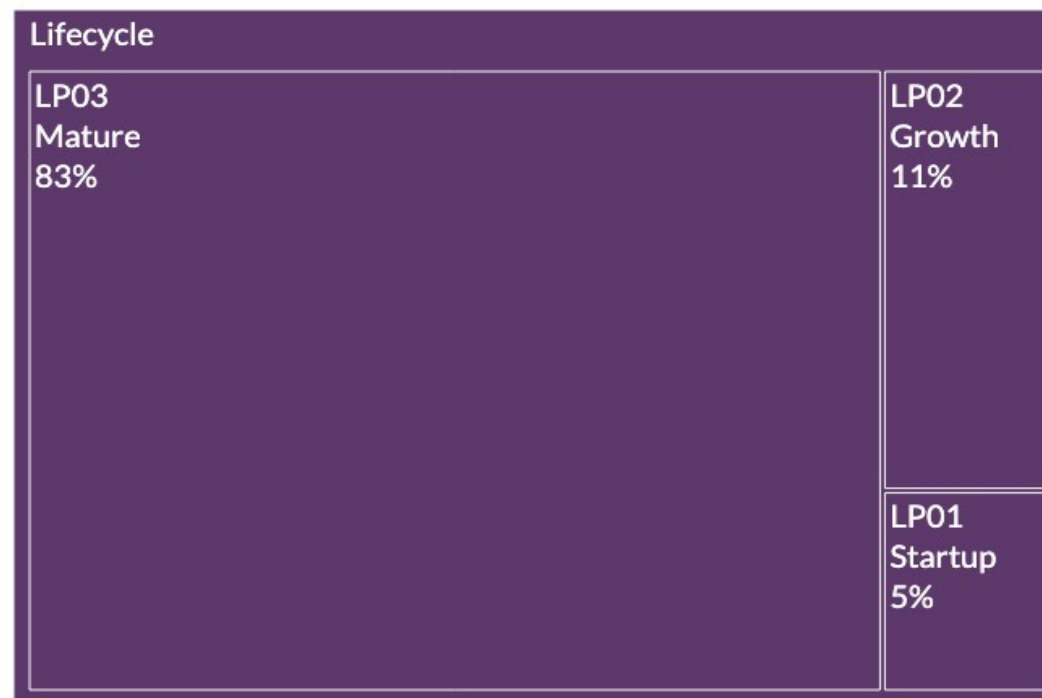
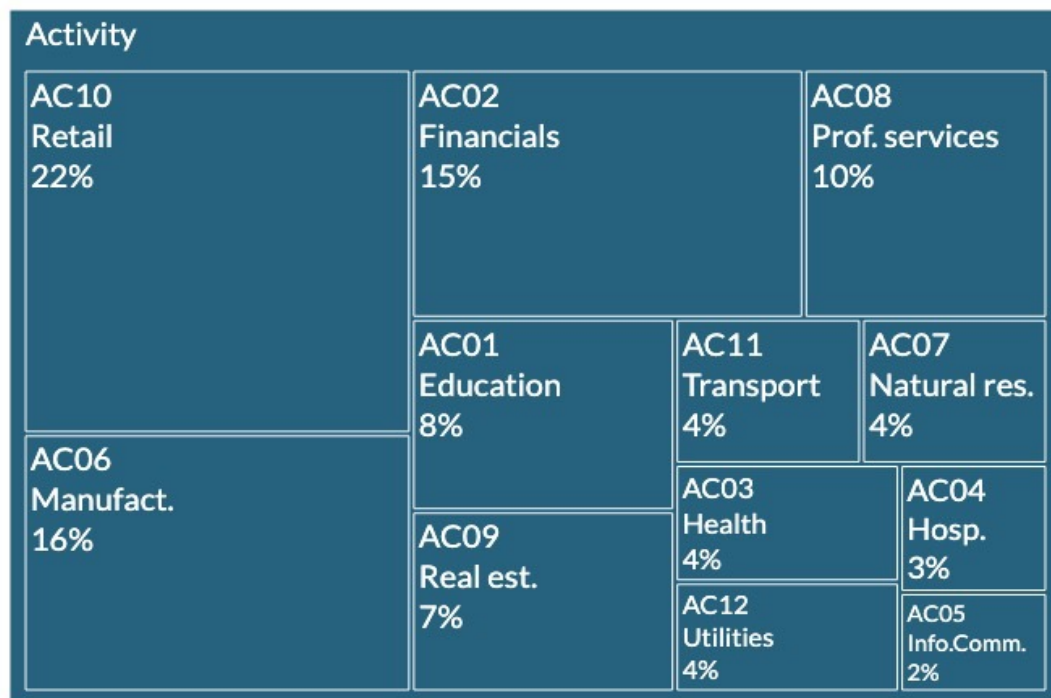
2024 PECCS REVIEW COMMITTEE

Member	Organization	Role
Michael Sterkel	Schroders Capital	Head of Valuations
Ruediger Stucke	Warburg Pincus	Head of Quantitative Research
Jeroen Cornel	BlackRock PE Partners	Director
Christian Fischer	Credit Suisse Pension Fund	Strategist, PE and infra
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Julien Krantz	InvestEurope	Research Director
Allen MacDonell	LPPI	Portfolio Manager
Richard Olson	Lincoln International	Managing Director
Chee Su Ling	GIC	Total Portfolio Policy & Allocation
Marc Lickes	StepStone Group	Managing Director
Steven Kaplan	Chicago Booth	Professor of Finance
David Larsen	Kroll International	Managing Director
Neven Tkalcec	European Investment Fund	Infrastructure Funds
Gilles De Soto	Ardian	Head of Valuation Department
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Peter Cornelius	Carlyle Group	Managing Director

PECCS APPLICATIONS

Mapping the Universe (2023)

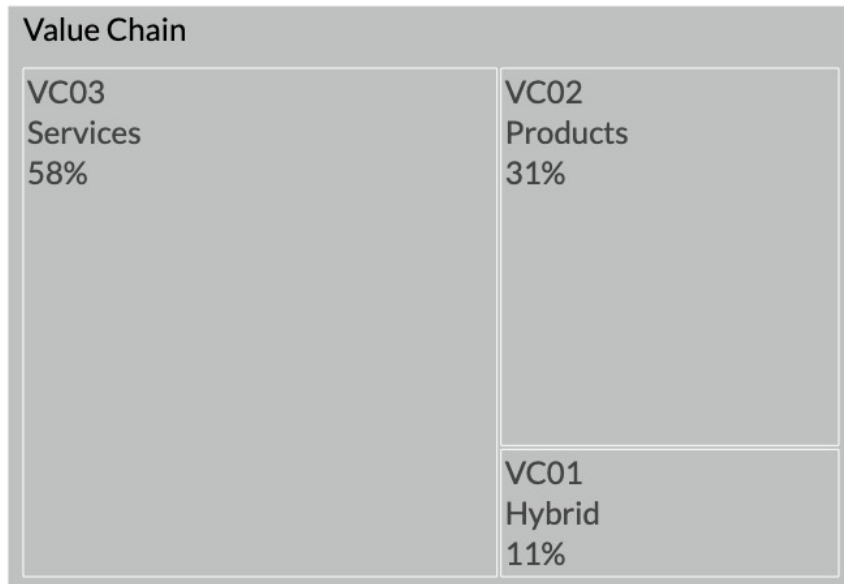
800k+ companies in 115 countries, total revenue USD40Tr+ and total assets USD100Tr+



PECCS APPLICATIONS

Mapping the Universe (2023)

800k+ companies in 115 countries, total revenue USD40Tr+ and total assets USD100Tr+



PECCS APPLICATIONS

Looking at 10k private equity deals over 25 years, the discriminatory power of PECCS classes on company valuation is statistically robust.

Price-to-Revenue and Price-to-Ebitda Multiples by PECCS Segment, 2013-2023

Activity	P/Sales	P/EBITDA
Education and public	1.9x	12.4x
Financials	2.4x***	11.1x**
Health	2.1x	13.1x***
Hospitality and entertainment	1.9x	11.5x**
Information and communication	2.6x***	12.8x***
Manufacturing	1.5x***	10.1x
Natural resources	1.9x	7.4x**
Professional and other services	1.6x**	10.6x
Real estate and construction	1.8x	10.5x
Retail	0.9x***	10.3x
Transportation	1.4x***	8.8x**
Utilities	1.9x	10.2x
All Transactions	1.7x	10.9x

Lifecycle Phase	P/Sales	P/EBITDA
Startup	2.4x***	12.1x
Growth	2.1x	12x***
Mature	1.6x***	10.5x***

Value Chain	P/Sales	P/EBITDA
Hybrid	2.4x	10.9x
Products	1.5x***	10.5x***
Services	1.9x	11.3x***

Revenue Model	P/Sales	P/EBITDA
Advertising	2.1x***	10.9x
Reselling	1.4x***	10x
Production	1.6x***	10.5x
Subscription	2.9x***	13.6x***

Customer Model	P/S	P/EBITDA
Business Focused	1.8	10.6***
Consumer Focused	1.7x***	11.4***

Source: Pitchbook, based on 10k transactions 2013-2023

Calculations: Scientific Infra & Private Assets

*** significant at the 1% confidence level

** Significant at the 5% confidence level

***Note a p-value less than 0.01 indicates the difference is statistically significant at a 1% level (green cells)

THE IMPORTANCE OF PECCS CONTROLS

- A factor model approach taking PECCS classes into account and calibrated with observed transaction prices produces predictions with close to zero average errors (see next slide).
- PECCS control variables play a key role in these predictions.
- For example, in the case of two typical transactions, computing the shadow prices while ignoring the company's revenue model class, leads to a large absolute error of circa 30%.

Company	PECCS Revenue Model Class	Year	Transaction Value (USDm)	Model Shadow price (USDm)	Model Error	Shadow price w/o PECCS Control (USDm)	Error w/o PECCS Control
Mauser	Production	2014	1,688	1,703	0.8%	1,153	-31.7%
Air Methods	Production	2017	2,500	2,512	0.6%	1,818	-27.3%

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For more information visit docs.edhecinfra.com/docs/4-peccs

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