PEI

Scientific Infra & Private Assets

SIPA PRODUCT CERTIFICATION · REQUIRED READING

privateMetrics Equity — Product Factsheet

Private Equity: Coverage, Indices, Data Points, PECCS Segments & Use Cases

PRODUCT	MARKET	PREREQUISITE	PRIMARY AUDIENCE
privateMetrics Equity	**Private equity (private companies)**	**None**	**Client-facing and analytical staff**

How to use this factsheet

This is the required reading for the privateMetrics Equity product certificate. It is a precise, granular specification of the product: coverage and the three nested universes, the index family, the full set of data points, the PECCS segmentation, and the four key use cases. Figures are stated as at SIPA's 2024–2025 privateMetrics product and index factsheets.

SECTION 1

What the product is

privateMetrics Equity provides valuation multiples, performance and fundamental metrics, risk metrics and market indices for private (unlisted) companies — the universe of private-equity-owned and privately held businesses. As in infraMetrics, values are computed by a transaction-calibrated factor model rather than collected from managers: the model "anchors" a company's value to current private-market conditions from its observable characteristics, then allows idiosyncratic adjustment. For a private company or a private-equity segment the product answers: its mark-to-market value, and its performance and risk.

SECTION 2

Coverage at a glance

Characteristic	privateMetrics Equity (as at 2024–2025 factsheets)
Assets tracked	1.3 million+ private companies

Characteristic	privateMetrics Equity (as at 2024–2025 factsheets)
Prices computed	50 million+ (70 million+ cumulative)
Update frequency	Monthly (each company revalued on average every ~1.3 months)
Countries	100+ countries (flagship indices focus on the top 30 PE/VC economies)
Index universe	~5,000-asset index universe; 10-year track record (from June 2013)
Segment indices	1,000+ PECCS segment indices; 65 thematic indices
Benchmark combinations	4,000+ PECCS segment/geography combinations
Customisable comparables	1,000+ segments
Analytics / valuation inputs	40+ index analytics; 40+ valuation inputs
Classification standard	PECCS® (five pillars)

The three nested universes

Universe	What it contains	Size
Broad Market Universe (BMU)	All priced companies of sufficient data quality across 150+ countries	900,000+ companies
PE Universe (PEU)	Companies matching the typical PE size and profit profile	175,000+ companies
Market Index Universe (MIU)	The largest companies in each sector and country (the index base)	~2,000 companies, since 2013

In the Market Index Universe the United States is the largest single market (~46%), followed by China, Japan, Germany, the United Kingdom and France; Europe is about a third of the market and Asia about a fifth.

SECTION 3

Principal indices

Index	Definition	Sectors	Countries	Mkt cap	Start
private2000	The ~2,000 largest companies by size — the largest investable PE/VC universe in the top 30 countries	12	30	~USD 4.1tn	Jun 2013
private3000	The middle-market investable universe, ranked below private2000 (non-overlapping)	12	30	~USD 2.1tn	Jun 2013
privateUSA	private2000/3000 constituents based in the United States	12	1	—	Jun 2013
privateEurope	private2000/3000 constituents based in Europe	12	15	—	Jun 2013
privateAsia / privateAPAC	private2000/3000 constituents based in Asia-Pacific	12	13	—	Jun 2013

Alongside these are 65 thematic indices and 1,000+ PECCS segment indices; PECCS benchmarks allow more than 4,000 combinations of segments and geographies with custom weights to mirror any portfolio.

SECTION 4

Market segments (PECCS)

PECCS pillar	Classes / sub-classes
Industrial Activity	12 classes, 67 sub-classes (mapped to NACE / GICS)
Revenue model	4 classes, 14 sub-classes
Lifecycle phase	3 classes, 7 sub-classes
Customer model	2 classes, 8 sub-classes (Business- vs Consumer-focused)
Value chain	3 classes, 6 sub-classes

Geographic segmentation spans 9 regions and 100+ countries; style segments include Large Cap, Mid-Market and Small Cap, plus Thematic and Growth/Value cuts.

SECTION 5

Data points available

Each metric is available per segment and can be customised within its segment to a chosen quintile or interval matching the risk-factor profile of a target company. Valuation metrics are reported by percentile and mean.

5.1 Valuation multiples

- Price-to-Sales; Price-to-Earnings; EV/EBITDA; EV-to-Sales; Price-to-Book.
- EBITDA-to-Sales; EBIT-to-Sales; Net-Income-to-Sales.

5.2 Performance and fundamental metrics

- Return on Assets; Return on Equity; Return on Capital Employed; Net Operating Income.
- Net Debt-to-Equity; Net Debt-to-Assets.
- Revenue growth; dividend-to-revenue (payout ratios).

5.3 Risk metrics

- Return volatility over 3, 5 and 10 years.
- Value-at-Risk at 97.5% and 99.5%, over 3, 5 and 10 years.
- Maximum drawdown over 3, 5 and 10 years; effective number of constituents; turnover ratio.

5.4 Risk-factor exposures and adjustments. Risk-factor exposures are provided, and valuation metrics can be adjusted by the following factors:

Risk factor	Basis
Size	Level of revenue
Revenue growth	Revenue-growth level

Risk factor	Basis
Leverage	Level of debt to revenue
Profitability	EBITDA-margin level
Firm maturity	Company age
Country risk	Term-spread level

5.5 Constituent-level fields. Index constituent lists include, among other fields: unique security identifier, security name, country code, PECCS classes, market capitalisation and turnover ratio.

SECTION 6

How the product is modelled

privateMetrics is a calculated dataset: every company in the index universe is valued monthly by the same discounted-cash-flow (income) method, consistent with IFRS 13 and grounded in arbitrage pricing theory (Ross, 1976). A cash-flow model forecasts the amounts an equity owner receives; a factor model sets the discount rate. Because a private company transacts at most once, the model is calibrated on a valuation ratio (for example price-to-sales) rather than on a return series.

6.1 Cash-flow model. For each company, expected dividend payouts and shareholder-loan repayments are forecast from company-level financial data classified by PECCS. These form the cash-flow stream that is discounted to a present value.

6.2 Asset-pricing (factor) model. Expected returns take the form:

> *E(Ri) – Rf = sum over k of [lambda_k × beta(i,k)] + epsilon_i — where lambda_k is the market price of factor k and beta(i,k) is company i's exposure. Six systematic factors are used — Size (level of revenue), Revenue growth, Leverage (debt to revenue), Profitability (EBITDA-margin level), Firm maturity (company age) and Country risk (term-spread level) — alongside PECCS controls. The factor prices are estimated from observed transactions through a disciplined pipeline: economically required regressors are imposed first; forward-stepwise selection adds further regressors; polynomial terms test for non-linearity; a Lasso penalty shrinks and selects second-order predictors; principal component analysis distils correlated predictors into a few interpretable components; and, finally, a dynamic linear (state-space / Kalman-filter) model estimates time-varying factor prices, so that the calibration tracks the market through the cycle and tolerates the irregular arrival of private deals.*

6.3 Shadow pricing and robustness. The latest calibration is applied to the observable characteristics of the universe to shadow-price each company; segment- and index-level metrics are averages of these shadow prices, so individual idiosyncratic errors diversify away. The model is validated in the same way as the infrastructure model: predicted prices match observed prices closely within each segment, the pricing residuals are white noise, the index returns show no serial correlation, and the resulting Sharpe ratios are economically believable.

SECTION 7

Key use cases

Strategic asset allocation (SAA) and CMAs. Monthly, unsmoothed returns, volatilities, Value-at-Risk, drawdowns and cross-asset correlations per PECCS segment feed capital-market assumptions and allocation studies. The private2000's near-zero correlation with the aggregate bond index, for example, is an input an allocator can actually use — unlike the artefacts produced by smoothed appraisal data.

Risk reporting. Return volatility, Value-at-Risk (97.5%/99.5%) and maximum drawdown support prudential and regulatory reporting, including the Solvency II treatment of unlisted equities, with expected-return and capital-efficiency inputs per segment.

Fund selection. private2000 and bespoke PECCS style benchmarks provide the market reference for measuring private-equity fund alpha and beta via the Private Market Equivalent / Direct Alpha method (through privateAlpha), letting an LP separate market return from manager skill.

Valuation. Shadow prices and multiples give an independent, IFRS-13-aligned valuation of a private company or portfolio and the largest available set of comparables (1,000+ segments) by PECCS pillar and geography — tunable to the size, growth and profitability profile of the specific company.

SECTION 8

Access

Data, indices and comparables are available through the platform, an Excel add-in and Python/R via the API (the Comps Builder), supporting single-company comparables and bulk portfolio analytics; 40+ index analytics and 40+ valuation inputs are included. The product is aligned with the BMR, IFRS, IOSCO, TICCS, PECCS and TCFD standards.

References

Sources

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Model references

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