HOW RISKY ARE PRIVATE EQUITIES?

A Comprehensive Risk Analysis for Informed Investments

November 2024

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All calculations presented in this report are based on market indices created by EDHEC. These privateMetrics® indices must be distinguished from manager performance benchmarks that are constructed by aggregating manager-reported performance data. Whether these benchmarks are built by computing fund-level money-weighted returns (Cambridge Associates) or calculating fund-level (modified) Dietz returns (MSCI/Burgiss, Preqin), they are not market benchmarks but manager performance benchmarks i.e. peer group benchmarks.

privateMetrics indices and benchmarks measure the time-weighted equity returns of private (unlisted) companies. De facto, *they represent the systematic exposures that investors face when building their investment strategy. Unlike fund manager performance indices, privateMetrics indices represent the performance and risk of the underlying assets computed at global or segment level. In other words, drawing a parallel with public equities, privateMetrics indices are the stock market indices for private markets whereas fund benchmarks are the equivalent of an index of listed mutual funds. Thus, to avoid confusion with the term `private equity' which has become synonymous with investing in private equity funds, we talk of private equit**ies** to refer to the market for investing in the equity stakes of private companies.*

In terms of risk profile, there are also important differences between a contributed manager benchmark and a market index like privateMetrics. Manager performance benchmarks do not capture risk because of the way they are computed: most of the data is the result of appraisals that are done quarterly at best without referring to the latest market data, understating the fluctuations in the asset returns. These smoothed returns lead to reporting artificially lower correlations with publicly traded assets, resulting in inflated Sharpe ratios and alphas. This smoothing effect causes significant positive autocorrelation and underestimates volatility, as the appraisal-based methodology fails to capture real market fluctuations.

Of course, fund managers also smooth risk through their skills i.e., in relation to the volatility of the private asset market, their ability to account for market conditions and their ultimately non-linear exposure to the market through the timing of investment entries and exits allows them, when their skills are proven, to reduce volatility. Furthermore, the structuring of their investments can have positive effects on the associated risk: for example, by securing preferential investment conditions compared to other shareholders. The underestimation of market risk through a benchmark can be misleading and lead to suboptimal investment decisions, whether it involves assessing the potential market risk within a private market allocation, selecting specific segments of that market, or, of course, understanding the systematic risk associated with investing in a particular project.

To find out more about privateMetrics indices, download our factsheet here.

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Executive Summary

This report provides an overview of the volatility of private equities across various market segments. Using the privateMetrics monthly indices and the Private Equity Company Classification System (PECCS), we look at risk by sector, customer and revenue models, and benchmark them against the private2000 market index. The findings offer actionable insights for fund managers, looking to find better investment opportunities, and for fund investors, trying to understand the risk of their portfolio and build strategic allocation targets.

- While private equities tend to have return volatility on par with listed equities, we note a slight decrease in the 3- and 5-year volatility across private equities. However, extreme risk as measured by 97.5% VaR has increased over time in numerous segments of the private equities universe.
- Significant Dispersion in Returns: In Sep 2024, return dispersion was notable, with 172bps across PECCS activities, 41bps among Customer Models and 72bps within Revenue Models, highlighting the importance of measuring differences in risk profile between private market segments.
- PECCS risk insights: The Financials sector is the most stable, while Health is the riskiest due to volatile revenues caused by regulatory and spending variability. Advertising revenue models have the lowest risk, whereas subscriptions face higher volatility. Consumer-focused firms are slightly safer than business-focused ones, and Technology and Transportation portfolios show strong resilience.
- Interest Rate Risk: Since 2022, private equities have faced varied impacts from economic shifts, with resilient sectors like Information and Communication and Financials experiencing moderate drawdowns, while Manufacturing and Health proved more vulnerable; consumer-focused models and advertising-based revenue models demonstrated greater stability compared to their counterparts.

These insights emphasize the importance of tailoring private equities to align with specific risk profiles and market dynamics.

Find out more about privateMetrics indices:

- Product factsheet
- September 2024 data release factsheet

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Which PE sectors are the riskiest?

On a global scale, private equities have a higher 10-year volatility as compared to the listed markets, as shown in table 1, but they have shown more stability in the shorter-term. However, analysing risk by PECCS activity reveals significant variations in risk profiles across sectors.

The dispersion in the returns of PECCS activities highlights the risk of investing different private equities and the importance of diversification. In Sep 2024, there was a spread of 172bps in the monthly total return among the PECCS activities, with the Retail sector performing the worst at -0.77% return. 9 out of the 11 activities underperformed the private2000 index in this month.

Risk in private equities is also a function of the variability in the key risk factors like the ones used in the privateMetrics asset pricing model[1]. For example, Figure 1 highlights the positive link between the volatility of profits[2] and the volatility of total returns of the index. The trends in volatility and value-at-risk metrics by PECCS activities (table 1) are described below:

- Health: The Health sector emerges as the riskiest segment within this analysis, even though the index remained flat this month. It displays the highest volatility and VaR at the 10-year horizon, indicating a greater potential for both substantial gains and significant losses. This elevated risk profile stems from volatile revenues, a result of regulatory uncertainty, technological advancements, and the inherently volatile nature of healthcare spending.

- Manufacturing & Professional and Other Services: These sectors also fall on the higher end of the risk spectrum, exhibiting higher volatility than the private2000 index across all time horizons, and significantly underperforming this month. Their VaR figures are also generally higher than the benchmark, suggesting a higher probability of experiencing losses. The cyclical nature of manufacturing and the potential for economic sensitivity in professional services contribute to this heightened risk profile.

- Financials: In stark contrast to Health, this sector consistently displays a lower risk profile compared to the private2000 index. Across all time horizons, Financials demonstrate lower volatility, suggesting a more stable pattern of returns. Additionally, this sector boasts the lowest VaR across all time horizons, further reinforcing its lower risk characteristic. This finding suggests that Financials may offer investors a relatively safe haven within the private equities landscape.

- Information and Communication & Transportation: These sectors also exhibit lower volatility than the private2000 index across all time horizons, implying a relatively stable return profile in a diversified portfolio. While their VaR figures are not as low as those of Financials, they still suggest a lower extreme risk exposure compared to the overall market.

- Moderate Risk Sectors: The remaining sectors, including Education and Public, Hospitality and Entertainment, Natural Resources, Real Estate and Construction, and Retail, generally occupy a middle ground in terms of risk. Their volatility and VaR figures are either comparable to or moderately higher than the private2000 index.

[1] https://docs.scientificinfraprivateassets.com/docs/2-3-our-approach

[2] Measured as the volatility of average Ebitda Margin of the index constituents.

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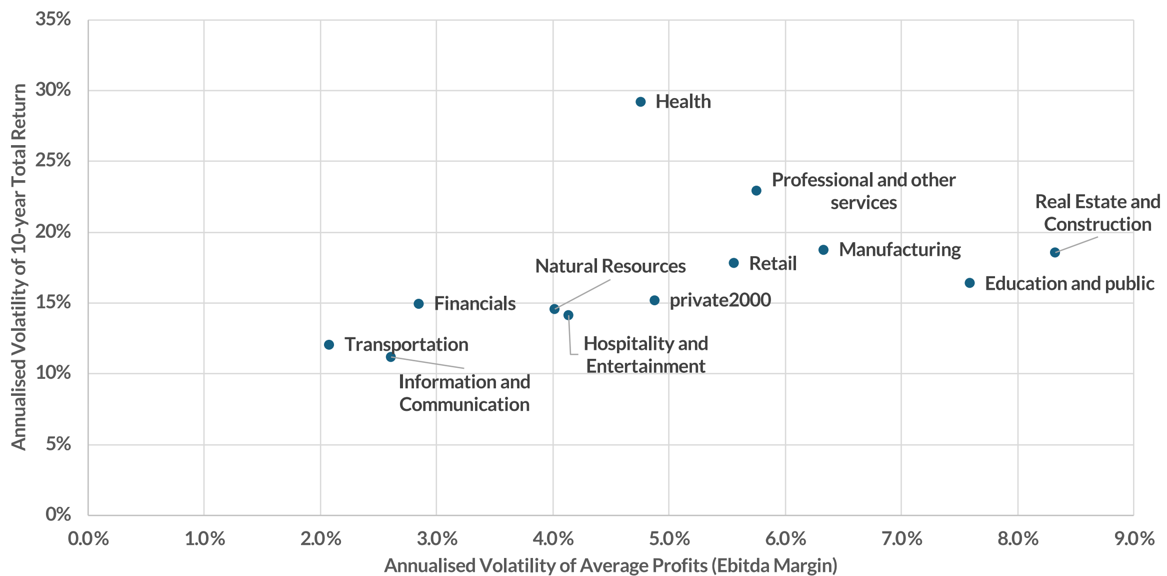
FIGURE 1: VOLATILITY OF TOTAL RETURNS AND PROFITS IN PRIVATE EQUITIES BY PECCS ACTIVITY



Evaluating Risk by PECCS Customer Model

Examining risk through the PECCS Customer Model (table 1), which categorizes private equity companies based on the target customer segment, provides additional insights into potential risk exposures.

- Business Focused: This model, encompassing companies targeting businesses as their primary customers, displays higher volatility and VaR compared to the private2000 index across all time horizons. This suggests that companies focused on serving businesses may inherently carry higher risk due to factors such as economic cycles, business spending patterns, and competitive dynamics within specific industries.
- Consumer Focused: the Consumer-Focused model, which includes companies targeting consumers as their primary customers, also exhibits higher volatility and VaR compared to the private2000 index across all time horizons. This heightened risk profile could be attributed to evolving consumer preferences, economic conditions affecting consumer spending, and competitive pressures within consumer markets.

Interestingly, the Business Focused model demonstrates slightly higher volatility and VaR than the Consumer-Focused model across all time horizons. This finding suggests that business-oriented companies may be marginally riskier than consumer-oriented companies within private equities. Business-focused companies also underperformed the private2000 index and their consumer-focused counterparts in Sep 2024.

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TABLE 1: RISK METRICS IN PRIVATE EQUITIES BY PECCS ACTIVITY, CUSTOMER MODEL, AND REVENUE MODEL

	Sep Return	Volatility			VaR 97.5%		
		3 Years	5 Years	10 Years	3 Years	5 Years	10 Years
private2000	0.21%	12.21%	13.58%	15.18%	19.22%	22.17%	18.10%
Public Equity (Russell All World)	2.20%	16.41%	17.30%	14.73%	24.27%	21.54%	20.25%
PECCS Activity Indices							
Education and public	-0.39%	12.59%	15.09%	16.38%	12.02%	19.24%	10.65%
Financials	0.02%	9.28%	13.72%	§	6.67%	9.76%	4.66%
Health	-0.31%	15.99%	22.04%	29.22%	13.88%	19.70%	23.44%
Hospitality and Entertainment	-0.49%	10.17%	12.47%	14.12%	12.57%	13.07%	4.06%
Information and Communication	-0.33%	8.79%	10.79%	11.18%	13.12%	17.44%	8.87%
Manufacturing	0.03%	16.69%	18.64%	18.74%	25.85%	25.35%	18.24%
Natural Resources	-0.26%	13.53%	14.04%	14.55%	18.82%	14.79%	4.52%
Professional and other services	-0.43%	17.70%	20.76%	22.93%	20.37%	21.59%	15.22%
Real Estate and Construction	-0.77%	14.07%	16.02%	18.55%	20.03%	18.70%	10.64%
Retail	0.42%	15.27%	17.61%	17.81%	20.18%	20.97%	4.73%
Transportation	0.21%	9.04%	11.37%	12.06%	13.37%	13.14%	4.32%
PECCS Customer Model Indices							
Business Focused	-0.38%	14.72%	16.08%	19.60%	14.72%	16.08%	19.60%
Consumer Focused	0.03%	13.50%	14.94%	17.57%	13.50%	14.94%	17.57%
PECCS Revenue Model Indices							
Advertising	0.37%	11.23%	13.03%	14.05%	11.23%	13.03%	14.05%
Production	-0.35%	14.94%	16.42%	19.68%	14.94%	16.42%	19.68%
Reselling	-0.35%	11.11%	13.86%	15.95%	11.11%	13.86%	15.95%
Subscription	0.12%	15.82%	18.35%	19.75%	15.82%	18.35%	19.75%

The Role of Revenue Models in Risk

Analysing risk from the perspective of the PECCS Revenue Model (table 1), which classifies private equity companies based on the revenue generation mechanism of the underlying companies, highlights a 72bps dispersion in their Sep 2024 returns, and further enhances our understanding of risk dynamics.

- Production & Subscription: These revenue models emerge as higher-risk categories within this analysis. Both exhibit higher volatility and VaR compared to the private2000 index across all time horizons. The inherent capital intensity of production-based businesses and the potential for churn in subscription-based models contribute to this elevated risk profile.
- Advertising & Reselling: In contrast, Advertising and Reselling revenue models demonstrate lower volatility and VaR compared to the private2000 index. This suggests that companies employing these revenue models may offer a relatively lower risk exposure.

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The impact of higher interest rates

A turn in the macroeconomic environment since 2022 has been felt across the financial markets, and private equities were no different. However, looking at drawdowns over this period reveals that some market segments fared better than others.

Figure 2 illustrates maximum drawdown over the last 3 years (measuring the largest peak-to-trough decline in value) by PECCS Activities, Customer Model, and Revenue Model, respectively.

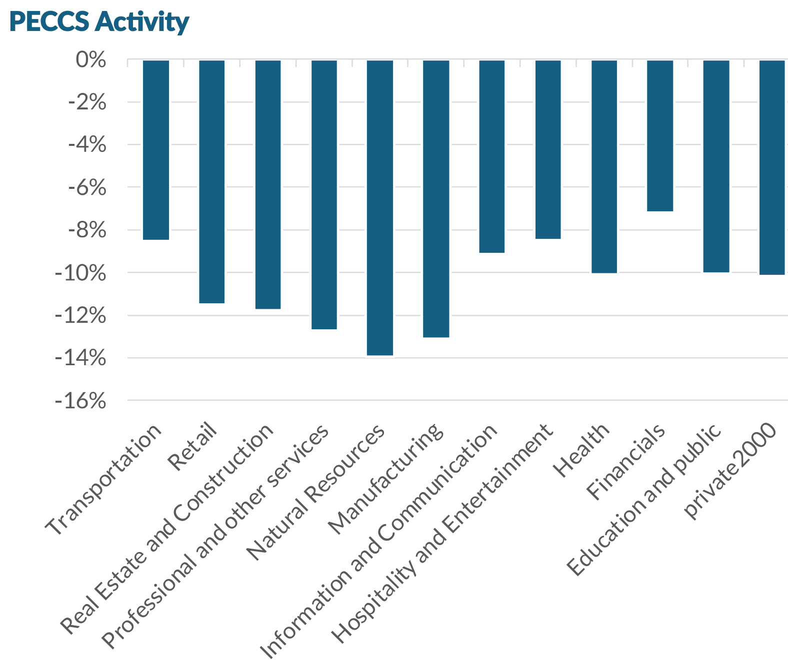
Market segments such as Information and Communication and Financials have experienced relatively moderate drawdowns, highlighting their resilience. In contrast, sectors like Manufacturing and Health, with higher drawdowns, underscore their vulnerability to economic shocks.

Analysing maximum drawdowns across customer models reveals that consumer-focused segments have demonstrated greater stability compared to their business-focused counterparts. The consumer-focused model benefits from more predictable revenue streams driven by steady demand, even during economic downturns.

Subscription-based revenue models, while appealing for their recurring income potential, experienced higher drawdowns. This suggests that long-term commitments and customer retention become challenges during periods of economic strain, leading to sharper declines in performance.

Conversely, advertising-based models emerged as one of the most stable revenue models, experiencing the lowest drawdowns among the categories analysed.

FIGURE 2: MAXIMUM DRAWDOWN OVER THE LAST 3 YEARS BY PECCS



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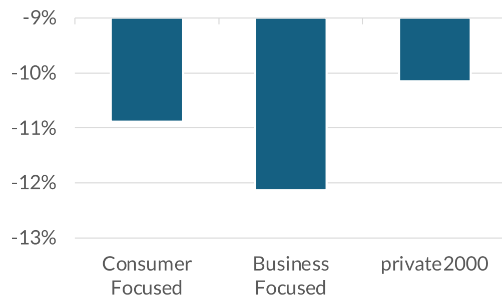

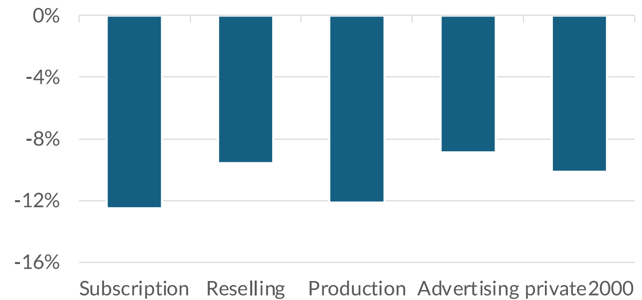

Conclusion

The privateMetrics monthly indices allow private equity risk trends to be analysed. Leveraging the PECCS framework, the data reveals notable return dispersions in Sep 2024 highlighting diverse risk and performance profiles in private equities. The indices provide a robust framework to analyse not only broad market movements but also the nuances of individual sectors and business or revenue models, such as the resilience of advertising revenue streams or the challenges faced by subscription models. Stable sectors like Financials contrasted with higher-risk segments such as Health and Manufacturing, reflecting the varying impact of market dynamics.

These insights demonstrate the value of privateMetrics in helping fund managers and investors align portfolios with specific risk tolerances. Its detailed analysis supports informed decision-making, enabling better diversification and a stronger response to evolving market conditions.

A question that is often posed is whether the volatility of the private assets market, as assessed by the privateMetrics® indices, is totally reflected in the management and investment market? The answer is no, because, over the long term, managers or investors, through their diversification, investment timing, entry and exit price negotiation, and investment structuring, with preferential negotiation clauses for example, can reduce this volatility, but it is important to remember that whatever the alpha of a manager or investor, and their capacity to manage the volatility of their investments, the systematic component of the private asset market, and therefore its risk, is sometimes large and cannot be ignored.

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