Ardian – Secondaries & Primaries

Python coding test

Problem:

› You have in attachment, one dataset related to the performance of the underlying companies of 5 funds and mapping tables of geographies and sectors.

company_level_metrics.csv: gives the financial metrics of the underlying companies per record date. All the values are already converted in USD. Record date included start from 2018Q3 and end in 2023Q3.

sectors.csv: gives the sector classification (Level 1 to 4)

geographies.csv: gives the region and continent of each country.

› Please provide an analysis of the valuation of the underlying companies (EV / EBITDA multiple) comparing metrics at the fund's entry with multiple at record date:
  - You should compute the valuation multiple yourself (EBITDA Multiple at entry, Record Date).
  - You should aggregate the results by sector level 1 or continent. **Define the assumptions taken in the process and the method used to compare the multiples.**
  - You may visualize the data in time series, bar charts or any other visualizations deemed relevant.
  - Draw a few conclusions from the visualizations.

Expected Output: Well documented Python Jupyter Notebook containing code, conclusions and visualizations.

company_level_metrics.csv:

- Fund Name: name of the fund
- Company Name: name of the underlying company
- Company Geography: Country of incorporation of the company
- Company Sector: GICS level 3 Sector of the company
- Record Date: Record date of the financial metrics
- Investment Date: Date the fund invested in the company
- NAV At RD: Net Asset Value in USD at the specific record date
- At Entry EV: Enterprise value at the investment date
- At Entry Ebidta: EBITDA at the investment date
- At RD EV: Enterprise Value at Record Date
- At RD Ebidta: EBITDA at Record Date

sectors.csv:

- Sector Classification Level 1
- Sector Classification Level 2
- Sector Classification Level 3
- Sector Classification Level 4

geographies.csv:

- country: Name of the country
- region: Region of the country
- continent: Continent of the country