

# FINM3405 Derivatives and risk management

Team Project assessment item: Report task sheet

August 6, 2024

You are required to write a Report analysing Pershing Square's (i) equity portfolio exposure to COVID-19, (ii) hedging objectives, (iii) hedging options and deliberations, and (iv) chosen credit default swap (CDS) position and its outcomes and effectiveness in achieving Pershing's hedging objectives.

As a starting point, read the Harvard Business Publishing case study documents A-D and Bill Ackman's letter to investors provided in the Assessment section of Blackboard. Students will also likely need to undertake additional self-directed, independent learning and research about the topics covered in order to complete the Report to a high standard.

The objective of the Report is to understand and articulate the situation Bill Ackman's hedge fund Pershing Square faced at the start of COVID-19, the mechanics and suitability of the hedging options available to Pershing at the time, and the mechanics, outcome and effectiveness of the decision to hedge using CDS. The following structure may be used as a guide for your Report:

**Executive summary:** Summary of report and its findings.

**Introduction:** Background information on Bill Ackman, Pershing Square, its investment style, its portfolio composition, and its exposure to COVID-19.

**Main body of report sections:**

- **Pershing's portfolio, exposure, forecasts and objectives:**
  - Composition and investment style of Pershing's equity portfolio.
  - Specific nature of Pershing's exposure to COVID-19.
  - Pershing's market forecasts and expected impact of COVID-19.
  - Pershing's hedging objectives.
- **Pershing's hedging options and deliberations:**
  - Quantitative analysis in terms of considerations such as the

- size or number of contracts to enter into (possibly progressively),
- position (short or long) and contract maturities,
- timing and tenor in the market (when and how to enter and exit),
- initial and ongoing cashflows and costs (premiums, margins, etc),
- expected outcomes or payoffs under different market conditions,
- risks and downside if markets didn't evolve as forecast,

of the mechanics each hedging option Pershing considered, namely

- not hedging,
  - partial or full portfolio liquidation into cash,
  - S&P 500 index futures,
  - S&P 500 index options, and
  - index CDS.
- Analysis of the feasibility and suitability of each of Pershing's hedging options for achieving their hedging objectives.

- **Pershing's chosen CDS trade and its effectiveness:**

- Discussion of the rationale for Pershing choosing CDS for hedging.
- Quantitative analysis of the mechanics of Pershing's CDX IG, CDX HY and iTraxx index CDS positions and outcomes including contracts used, positions taken, initial and ongoing cashflows and costs, length of time the positions were open, entry and exit timing, profit positions on paper as market conditions evolved, partial exiting of positions.
- Discussion of Pershing's deliberations surrounding keeping the positions open, then partially closing them and taking some profits, and eventual timing of exiting them completely, as markets evolved.
- Analysis of the effectiveness of Pershing's chosen CDS trades in terms of achieving their hedging objectives, given the market conditions that evolved and the accuracy of Pershing's market forecasts.

**Conclusion:** Summary of Pershing's hedging objectives, deliberations and decisions, and any closing or concluding comments, remarks or observations.

**Reference list**

**Appendix:** Containing calculations, tables, visuals not in main body, etc.