Investment Banking & Private Equity Modeling Portfolio

Prepared as part of internship preparation for top investment banks and private equity firms such as JPMorgan and KKR. The portfolio includes core financial models built from scratch with real company data.

1. Discounted Cash Flow (DCF) Model - Mercedes-Benz

- Forecasted 5-year unlevered free cash flows based on revenue, EBITDA margin, CapEx, and NWC changes.

- Calculated terminal value using the Gordon Growth method.

- Discounted cash flows using a 9% WACC; derived Enterprise Value and Equity Value.

- Final intrinsic share value estimated at ~EUR66.96.

2. Leveraged Buyout (LBO) Model - Mercedes-Benz

- Built 5-year LBO with 70% debt financing and structured debt repayments.

- Projected FCFs, constructed debt schedule, and calculated IRR & MOIC.

- Achieved sponsor-level IRR of ~32% with 3.8x MOIC using exit multiple method.

3. Comparable Company Analysis (Comps) - Auto Sector

- Benchmarked Mercedes against peers (BMW, Toyota, Ford, GM, etc.).

- Analyzed EV/EBITDA, P/E, EV/Sales, and P/B multiples.

- Derived implied valuation for Mercedes using median peer multiples.

4. Precedent Transactions Analysis - Auto M&A Deals

- Analyzed 5 recent M&A deals in the automotive sector.

- Calculated deal multiples (EV/EBITDA and EV/Revenue).

- Applied median transaction multiples to Mercedes to estimate fair EV range.

5. Merger Model (Accretion/Dilution) - Mercedes Acquires BMW

- Built pro forma EPS model with 100% stock deal and 25% premium.

- Estimated EUR1.05B post-tax synergies and modeled EPS impact.

- Resulted in a ~2.1% EPS accretion with exchange ratio-based dilution analysis.

- Included sensitivity table on synergies vs premium for robustness.