The Adjusted Present Value (APV) Approach

The Adjusted Present Value (APV) Approach for a project with debt financing is:

$$APV = NPV_U + NPVF$$

APV has the analytical advantage of separating the value of the unlevered investment, NPV_U, from the value of financing side effects, NPVF. NPV_U is the net present value of the project to an all-equity (unlevered) firm:

- $NPV_U = PV_{UCF}$ - Initial investment for the entire project
- PV_{UCF} = PV of Unlevered Cash Flows (UCF)
- UCF = Annual total cash flow generated by the project; i.e., CF(A) = OCF - Capital Spending - Change in NWC (ref. Chapters 2 and 6)
- Discount rate = r_0 (Unlevered cost of capital)

NPVF is the net present value of financing side effects, which include:

- tax subsidy to debt
- costs of issuing new debt and equity securities
- costs of financial distress arising from the use of debt
- subsidies to debt financing

We have already seen one of these financing side effects: the interest tax shield in MM's Proposition I, $V_L = V_U + T_C*B$. The interest tax shield, i.e., T_C*B is the largest financing side effect.