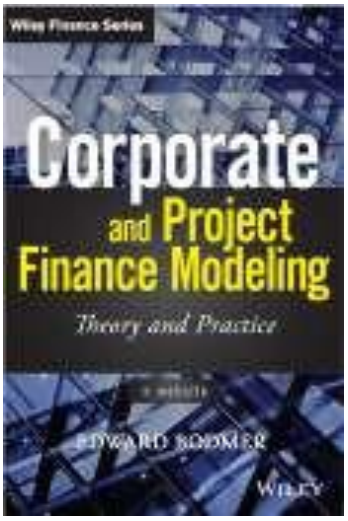
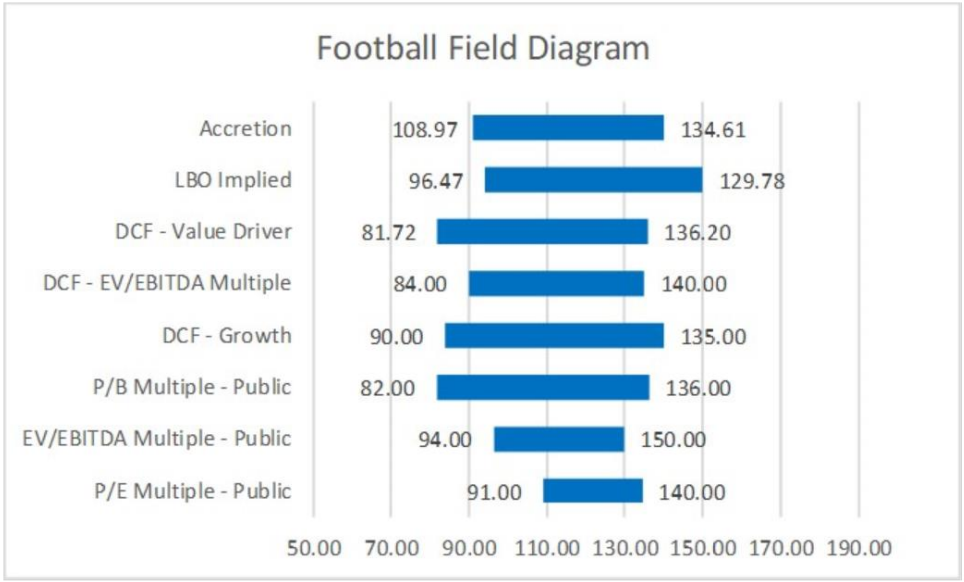
M&A – Theory, Modelling and Analysis Digital Course

- Highly Interactive Hands-on Course with Strict Limit on Participants
- All Modules are Live Stream (No Videos)
- Learn how to navigate and find key files in resource library
- You Work on Models During Five Sessions and Course Customised According to Your Pre-Course Question Responses
- Learn How to Be a Creative and Innovative Modeller without the Typical Blah Blah Blah
- Faculty: Edward Bodmer





Summary and Overview

Company Valuation/M&A – Theory, Modelling and Practice is a digital hands-on course that offers practical instruction on how to model economic, financial and strategic issues associated with valuation of corporations and mergers and acquisitions. The course addresses unique methods for evaluating the financial and economic effects of acquisitions including careful analysis of terminal value in discounted cash flow models, earnings accretion models, leveraged cash flow models and economic models. As the course progresses, case studies are used to illustrate the practical issues associated with M&A modelling including debt structuring, minority interest, goodwill and deferred taxes that arise from alternative tax treatment of acquisitions.

During separate sessions, participants in the seminar build a complete financial model from A to Z from a blank spreadsheet to measure the costs and benefits of a merger transaction. In addition to building their own model, the course will show participants how to construct that incorporate sophisticated M&A concepts. By the end of the course, participants will be able to construct an integrated model that includes sources and uses of funds, pro-forma financial statements, acquisition premiums, cash flow waterfalls, synergies and effective presentation of the merger analysis. In addition to teaching the process of building a flexible, accurate, structured and transparent acquisition and merger model using a case study, the course covers certain challenging topics involving modelling of cash flow waterfalls, terminal value calculations, derivation and analysis of multiples and complex aspects of models. The advanced topics include:

✓ Advanced DCF Models for M&A that Include Complex Terminal Valuation Techniques and Flexible Transaction Timing

✓ Modelling of Alternative Transaction Structures with Pro-forma Balance Sheet, Taxes and Calculation of Accretion and Dilution

✓ Evaluation of Transaction Multiples through Analysis of Growth, Return on Investment, and Transition Periods

✓ Converting Corporate Models into Acquisition Models with Different Timing and Synergy Assumptions

✓ Constructing and Analysing LBO Models with Complex Debt Structuring and Cash Flow Waterfalls

Session 1: Introduction to M&A, Model Drivers and DCF Analysis

M&A Terminology and Course Themes

- General Discussion of valuation terms and
- Overview of valuation in acquisition and mergers in the context of finance theory and lessons learned from the valuation and M&A nightmares
- Alternative objectives in valuing M&A including DCF Valuation, multiples, internal rate of return, synergies versus premium and constrained accretion and dilution analysis
- Exercise on valuation from premium and synergy versus earnings dilution
- Risk analysis and importance of debt capacity in M&A valuation

Analysis of Value and M&A with Existing Models -- Model Objectives and Model Structure

- Review of buy side and sell side presentations in actual M&A transactions
- Standalone target valuation model using DCF and synergy estimates with value build-up
- Benefits and problems from using P/E, EV/EBITDA and price to book multiples to evaluate acquisitions and in combination with DCF analysis
- Use of integrated M&A model to evaluate earnings accretion and dilution with alternative capital structures and alternative accounting assumptions
- LBO model with analysis of IRR using alternative capital structure assumptions with senior amortizing debt, senior bullet debt and subordinated capitalizing debt
- Credit analysis in alternative merger models
- Combined model with Equity IRR, unlevered IRR, accretion and dilution and DCF analysis

Advanced Discounted Free Cash Flow and Value Drivers

- Financial theory and basis for DCF model
- Development of assumptions through considering industry structure, growth potential, pricing strategy, capital expenditure costs and fixed versus variable operating costs
- Construction of revenue, expense and capital expenditure model section from operating assumptions
- Building flexible models that evaluate different start periods, explicit periods and terminal periods.
- Calculation of depreciation expense from capital expenditures and problems with retirements and computation of depreciation on existing assets
- Evaluation of return on invested capital from invested capital perspective and assets perspective and use of return to evaluate reasonableness of forecasts.
- Discussion of the theoretical and philosophical problems with measuring growth and WACC.
- Calculation of terminal value using constant growth assumption and problem with wide range in values from different growth and WACC assumptions.
- Determination of enterprise value using constant growth assumption and valuation multiples.
- Sensitivity analysis and scenario analysis for different operating assumptions and valuation assumptions.

Session 2: Stand Alone Financial Model for Valuation and Transaction Module for Acquisition Analysis

Corporate Modelling and Standalone Valuation

- Layout and structure of corporate and M&A models
- Balance Sheet as model starting point and ending point
- Debt module and reconciliation of cash flow with balance sheet
- Model of financial statements and use of balance sheet to audit cash flow
- Calculation of projected return on invested capital
- Modelling constant capital structure on a book and market basis

Valuation and Adjustments in Terminal Period and Bridge from Enterprise Value to Equity Value

- Four methods of valuation from corporate models – growth method, value driver method, multiple method and P/E ratio method
- Importance of stable period in evaluating cash flows
- Discounting with mid-year cash flows and terminal value at end of period
- Use of ROIC/WACC spread in computing terminal value
- Calculation of stable period working capital changes from terminal growth rate
- Modelling issues with ratio of stable level of capital expenditures to depreciation
- Items to include in bridge between equity value and enterprise value
- Effect of items in bridge on the WACC
- Presentation and risk analysis of alternative valuation methods

Structuring of Acquisition Model and Accounting in M&A

- Transaction assumptions – premium, shares issued, debt issued, transaction costs, cash used, minority interest, debt retirement
- Alternative transaction assumptions and calculation of implied transaction multiples
- Sources and uses of funds analysis with alternative residual funding
- Purchase accounting, elimination of existing equity and re-valuation of assets and liabilities
- Goodwill and impairment calculations in alternative situations
- Pro-from balance sheet for modelling and analysis using sources and uses and goodwill
- Using alternative balance sheet dates for pro-forma analysis
- Alternative tax accounting for mergers – share exchange versus asset purchase
- Deferred tax changes from mergers and acquisitions – share exchange

Session 3: Acquisition Model and Cash Flow Waterfall

Setting-up Financial Structure of Acquisitions and Financial Modelling

- Debt capacity in transactions and use of Debt to EBITDA ratio
- Valuation in private equity transactions and use of entry and exit EV/EBITDA multiples.
- Amortising and bullet debt structures in leveraged transactions
- Use of capitalising subordinated debt in financing transactions
- Alternative structures for equity financing including earn out provisions and flip structures
- Deferred tax changes from mergers and acquisitions – share exchange

Debt Structure and Modelling

- Debt capacity in transactions and use of Debt to EBITDA ratio
- Valuation in private equity transactions and use of entry and exit EV/EBITDA multiples.
- Amortising and bullet debt structures in leveraged transactions
- Use of capitalising subordinated debt in financing transactions
- Alternative structures for equity financing including earn out provisions and flip structures
- Optimal holding period and J-curve

Construction of Acquisition Model

- Transfer of data from standalone model and incorporation of flexible transaction dates
- Inclusion of terminal proceeds in operating analysis
- Construction of debt schedule for existing debt and amortising debt with repayment at exit
- Modelling credit spreads and cash sweep as a function of Debt/EBITDA
- Development of bullet debt with provisions for cash flow sweep
- Structuring of liquidity facilities and provision for senior debt defaults
- Income statement and tax module with adjustments for transaction and net operating loss carry forward
- Cash flow statement with provisions for waterfall, cash sweep and dividends
- Alternative calculations for positive and negative cash flow
- Limits on cash sweep, use of liquidity facility and debt defaults
- Modelling of cash flow to alternative equity tranches and earn-out provisions

Analysis Using Leveraged Buyout Model

- Presentation of cash flow waterfall
- Calculation of IRR on Equity, Sub-debt and Equity
- Determination of break-even points for equity, subordinated debt and senior debt
- Scenario analysis and use in evaluating debt capacity (can different debt levels be repaid in downside or worst case)
- Tornado analysis for due diligence and underwriting – discover which variables are the most important in equity IRR and debt analysis

Session 4: Assessment of Entry and Exit Multiples in Acquisition Analysis, Integrated Acquisition Models and Synergies

Advanced Analysis of Implied Multiples for Entry, Exit and DCF

- Construction of P/E ratio from value drivers with alternative transition periods
- Modelling of invested capital using net depreciation rate and stable ratios of capital expenditures and deferred taxes
- Modelling of cost of capital from inflation, real risk free rate and risk premium
- Computation of free cash flow and growth rate from ROIC assumptions and growth rates
- Incorporation of implied multiples in DCF analysis and acquisition models
- Regression analysis of multiples and theory of multiples

Integrated Models and Accretion and Dilution Analysis

- Importance of accretion and dilution for investment analysts and management
- Incorporation of stock price of acquiring company, exchange ratios and partial share swap transactions in merger models
- Debt issuances in integrated model and credit constraints
- Sources and uses and goodwill analysis in consolidated models
- Pro-forma balance sheet for consolidated company
- Consolidation of operating accounts, asset accounts and working capital
- Modelling of financing and taxes for consolidated company
- Calculation of consolidated and standalone EPS
- Computing alternative ratios to simulate credit ratings and evaluate credit quality
- Sensitivity analysis of alternative acquisition premiums and debt financing

Synergy Analysis in Acquisition Analysis

- Theory of synergies and identifying synergies
- Different types of synergies
- Valuation of synergies
- Break-even synergies

Session 5: Advanced Issues in DCF and Leveraged Buyout Analysis

Reconciling Discounted Cash Flow and Multiples

- Problems with EV/EBITDA, Growth, and Value Driver Methods for Computing Terminal Value
- Accounting for ROIC, Transition Growth and Cost of Capital Changes in Terminal Value
- Stable Period Adjustments for Capital Expenditures, Working Capital and Deferred Tax
- Evaluation of Items to Include in the Bridge between Equity Capital and Enterprise Value
- Simulating P/E Ratio with Alternative Growth, Return, and Risk Premium and Transition
- Simulating EV/EBITDA ratios with Alternative Value Drivers

Cash Flow Waterfall in Acquisition Models

- Separately Modelling Amortising, Bullet and Capitalizing Debt Tranches
- Risk and Return of Tranches of Acquisition Capital Structure
- Analysis of Cash Traps and Liquidity Facilities
- Simulating Earn Out and Incentive Payments
- Structuring Alternative Equity Tranches with Target IRR and Flip Structures

Flexible Transaction Structures and Analysis

- J-Curve and Optimal Holding Period
- Timing of Transaction in Mid Period
- Modelling of Alternative Acquisition Tax Structures
- Computing New Shares in Transaction with Share Exchange and Cash Transactions
- Using Share Premium to Set-Up Transactions or Implied Multiples
- Risk and Return Characteristics of Senior Debt, Mezzanine Debt and Equity
- Pro-forma Balance Sheet and Accounting

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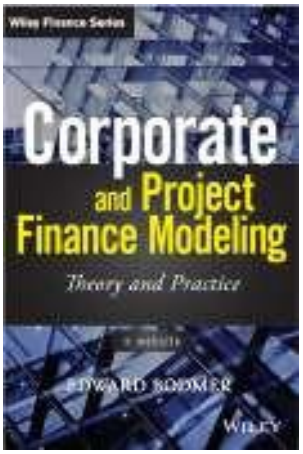

Edward Bodmer provides financial and economic consulting services to a variety of clients, he teaches professional development courses in an assortment of modelling topics (project finance, M&A, and energy). He is passionate about teaching in Africa, South America, Asia and Europe. Many of the unique analytical concepts and modelling techniques he has developed have arisen from discussion with participants in his courses. Professor Bodmer has taught customized courses for MIT's Sloan Business School, Bank Paribas, Shell Oil, Society General, General Electric, HSBC, GDF Suez, Citibank, CIMB, Lind Lakers, HSBC, Saudi Aramco and many other energy and industrial clients. Bodmer's consulting activities include developing complex project finance, corporate and simulation models, providing expert testimony on financial and economic issues before energy regulatory agencies, and advisory services to support merger and acquisition projects.

Mr Bodmer has written a textbook titled ***Corporate and Project Finance Modelling, Theory and Practice*** published by Wiley Finance. The book introduces unique modelling techniques that address many complex issues that are not typically used by even the most experienced financial analysts. For example, it describes how to build user-defined functions to solve circular logic without cumbersome copy and paste macros; how to write function that derives the ratio of EV/EBITDA accounting for asset life, historical growth, taxes, return on investment, and cost of capital; and how to efficiently solve many project finance issues related to debt structuring. Bodmer is in the process of writing a second book that describes a series of valuation and analytical mistakes made in finance. This book uses many case studies from Harvard Business School that were thought to represent effective business strategies and later turned into valuation nightmares.

Over the course of his career Professor Bodmer has been involved in formulating significant government policy related to electricity deregulation; he has prepared models and analyses for many clients around the world; he has evaluated energy purchasing decisions for many corporations; and, he has provided advice on corporate strategy. Mr Bodmer's projects include development of a biomass plant, analysis and advisory work for purchase of electricity generation, distribution and transmission assets by the City of Chicago, formulation of rate policy for major metro systems and street lighting networks, advocacy testimony on behalf of low income consumers, risk analysis for toll roads, and evaluation of solar and wind projects. He has constructed many advisory analyses for project finance and merger and acquisition transactions.

Professor Bodmer was formerly Vice President at the First National Bank of Chicago where he directed analysis of energy loans and also created financial modelling techniques used in advisory projects. He received an MBA specializing in econometrics (with honours) from the University of Chicago and a BSc in Finance from the University of Illinois (with highest university honours). Mr Bodmer was born in Manchester, England, he lived in Switzerland as a child, and currently resides in Chicago. You can find more information on his website www.edbodmer.com.