Survey on investment valuation practice and policy

The survey is part of a research project at the Department of Banking and Finance, University of Zurich.
We estimate that the survey will take you about 10 minutes.
Participation in the survey entitles you to receive the written report containing the survey results.
Responses will be used only in aggregate and remain anonymous.

Thank you for taking the time to complete the survey.

Instructions: fill in one box per line: ○ Only one answer possible

□ Choose all that apply

1 Preliminary and Personal questions

1. What kind of investments are you usually valuing?

Never	0	1	2	3	4	Always
						a. Project finance
						b. Listed firms or divisions
						c. Unlisted firms or divisions
						d. Real estate
						e. Other, please specify ...

2. What is the usual purpose of your valuations?

Never	0	1	2	3	4	Always
						a. Merger or acquisition
						b. Investment decision
						c. Going public (Initial Public Offerings, IPOs)
						d. Going private
						e. Other, please specify ...

3. What side of the investment are you usually on?

Never	0	1	2	3	4	Always
						a. I am on the buy-side
						b. I am on the sell-side
						c. Advisory role
						d. Other, please specify ...

4. Age

- ○ 20 - 25
- ○ 25 - 30
- ○ 30 - 40
- ○ 40 - 50
- ○ 50 +

5. Education

- □ Bachelor Degree
- □ Master Degree
- □ MBA
- □ PhD
- □ CFA
- □ Other Professional Exam

6. Years of Work Experience

- ○ 0 - 3
- ○ 4 - 10
- ○ 10+

7. Professional Title (e.g. Analyst, Associate, Investment Manager, Consultant, etc.)

8. Gender ○ Female ○ Male

9. Sector focus ○ No ○ Yes, which?

10. Firm size focus (in terms of enterprise value)

□ More than €5 billion □ Between €500 million and €5 billion □ Less than €500 million

11. Transaction Focus □ National Deals □ Cross-Border Deals

12. Regional Focus

□ Western Europe □ Eastern Europe □ North America
□ South and Middle America □ Asia □ Middle East □ Africa

2 Relative Valuation (Multiples)

13. How important are the following types of multiples?

Not important 0 1 2 3 4 Very important

a. Price-Earnings Ratio (P/E)

b. Price/Earnings to Growth Ratio (PEG)

c. Price-to-Book (P/B)

d. Price-to-Sales (P/S)

e. Price-to-Cash Flow (P/CF)

f. Enterprise Value-to-Sales (EV/S)

g. Enterprise Value-to-EBITDA (EV/EBITDA)

h. Enterprise Value-to-EBITA (EV/EBITA)

i. Enterprise Value-to-EBIT (EV/EBIT)

j. Industry-specific multiples (e.g. Enterprise Value to subscribers; Enterprise Value to m^2 of sales area; Enterprise Value to members)

14. How important are the following:

Not important 0 1 2 3 4 Very important

a. Trailing multiples

b. 12-months forward multiples

c. 24-months forward multiples

15. What firm's or project's characteristics affect your choice on which multiples to use?

Not important 0 1 2 3 4 Very important

a. Industry sector

b. Size

c. Type of transaction

d. Accounting policies and potential for manipulation

e. Earnings and margins stability

f. Capital intensity

g. Stock liquidity

h. Other, please specify ...

16. What factors affect the selection of comparable firms?

Not important 0 1 2 3 4 Very important

a. Bloomberg default comparable firms

b. Industry sector

c. Size

d. Close competitors

e. Age

f. Expected Growth Rate

g. Return on Invested Capital (ROIC)

h. Stock liquidity

i. Other qualitative aspects

j. Other, please specify ...

17. Please state the average number of comparable firms (number or range): ...

3 Multi-period models

18. How important are the following approaches?

Not important 0 1 2 3 4 Very important

a. Discounted Cash Flow (DCF)

b. Residual Income Model (RIM)

c. Economic Value Added (EVA)

d. Dividend Discount Model (DDM)

e. Internal Rate of Return (IRR)

19. Within DCF valuation, how frequently do you use the following approaches?

Never 0 1 2 3 4 Always

a. Net Present Value (NPV)

b. Adjusted Present Value (APV)

c. Capital Cash Flow (CCF)

d. Flows-to-Equity

e. Weighted Average Cost of Capital (WACC)

19a. What factors affect your choice in (19.)?

Not important 0 1 2 3 4 Very important

a. Debt policy of firm or project to be valued (i.e. whether the firm has a target debt ratio)

b. Riskiness of Tax Shield

c. Firm's credit rating

d. Type of transaction

e. Other, please specify ...

19b. How do the above mentioned factors affect your choice? ...

20. Over how many years do you forecast cash flows in your valuation model?

○ About 5 years
○ About 8 years
○ About 10 years
○ Other, please specify ...

21. Terminal value: which of the following approaches do you rely more on?

Never 0 1 2 3 4 Always

a. Gordon growth model (i.e. $TV = \frac{FCF_{t+1}}{WACC-g}$)

b. Price-to-Book ratio

c. Other multiples

d. Liquidation value

e. Replacement costs

f. Invested capital

g. Other, please specify ...

21a. If you use growth in perpetuity (Gordon growth model) for terminal value, which growth rate do you typically use?

Never 0 1 2 3 4 Always

a. -2%

b. -1%

c. 0%

d. 1%

e. 2%

f. 3%

g. 4%

h. Inflation rate

i. GDP growth rate

j. Other, please specify ...

22a. When calculating Weighted Average Cost of Capital (WACC) of your comparables, do you typically use market weights of equity and debt, or do you typically use target weights?

○ Market weights ○ Target weights ○ Other, please specify ...

22b. When calculating Weighted Average Cost of Capital (WACC) to apply to the project or firm you are valuing, do you typically use market weights of equity and debt, or do you typically use target weights?

○ Market weights ○ Target weights ○ Other, please specify ...

23. How do you deal with expected future changes in capital structure?

Never 0 1 2 3 4 Always

a. When using WACC: recalculating WACC for every forecasted year

b. When using Flow-to-Equity: recalculating cost of equity for every forecasted year

c. I use Adjusted Present Value (APV) if the capital structure is not fixed

d. Other, please specify ...

24. When using Adjusted Present Value (APV), how do you compute Present Value of Tax Shield (PVTS) (arising from the tax deductibility of interest payments)?

Never 0 1 2 3 4 Always

a. Discounted at unlevered cost of equity (i.e. cost of assets, or all-equity opportunity cost of capital)

b. Discounted at cost of debt

c. It depends on debt policy of the firm

d. It depends on how stable the forecasted cash flows are

e. Other, please specify ...

25. Do you ever consider personal taxes when calculating the present value of the tax shield?

Never 0 1 2 3 4 Always

26. Which of the following approximations / approaches most resemble how you calculate the cost of debt?

No resemblance 0 1 2 3 4 High resemblance

a. Yield to Maturity (YTM)

b. Coupon rate

c. Risk-free rate

d. Risk-free rate plus spread (based on the rating and/or duration)

e. Capital Asset Pricing Model (CAPM)

f. Other, please specify ...

27. How frequently do you use the following approaches to calculate the cost of equity?

Never 0 1 2 3 4 Always

a. Capital Asset Pricing Model (CAPM)

b. Fama-French three-factor model

c. Other multi-factor models

d. Other, please specify ...

27a. When calculating the cost of equity, which risk-free rate do you apply?

Never 0 1 2 3 4 Always

a. Three month T-bill

b. LIBOR

c. Swap rates

d. Longer term treasury rates

e. I try to match the risk-free rate to the duration of forecasted flows

f. Other, please specify ...

28. When using the CAPM, from where do you get Equity Betas?

○ In-house calculation ○ Published Equity Betas, please specify the source ...

⇒ *If in-house calculation*

28a. Do you typically calculate the firm-specific Equity Betas or do you typically use industry Equity Betas?

○ Firm-specififc Equity Beta ○ Industry-based Equity Beta

28b. You typically estimate Equity Beta using:

○ Daily returns ○ Weekly returns ○ Monthly returns

28c. What time period do you typically use when calculating Equity Beta?

○ 1 year ○ 3 years ○ 5 years ○ Other, please specify ...

28d. What do you typically use as the market portfolio?

○ Regional Index
○ National Stock Index (e.g. S&P500, DAX)
○ World Index (e.g. MSCI World Index)

28e. Do you typically use Beta-Smoothing techniques?

○ Yes ○ No

29. When using the CAPM, from where do you get the Market Risk Premium (MRP)

○ In-house calculation ○ Published sources, please specify the source ...

29a. What is your Market Risk Premium ($MRP = r_{market} - r_{risk-free}$)?
Value or range of values

29b. Do you consider personal taxes when estimating MRP
$MRP = r_{market} - r_{risk-free} \times (1 - T_p)$?

○ Yes ○ No

4 General questions on analysis approach

30. If you are <u>not</u> using a multi-period model - why?

Does not apply at all 0 1 2 3 4 Fully applies

a. Too time consuming

b. Too much uncertainty behind assumptions on CF forecasts

c. Too much uncertainty behind assumptions on Cost of Cap.

d. Other, please specify ...

31. How frequently does your analysis include:

Never 0 1 2 3 4 Always

a. Both Multiples and Discounted Cash Flow (DCF)

b. Both Multiples and Discounted Cash Flow (DCF), but Multiples are the primary approach

c. Both Multiples and Discounted Cash Flow (DCF), but Discounted Cash Flow (DCF) is the primary approach

d. Only Multiples

e. Only Discounted Cash Flow (DCF)

f. Sensitivity analysis

g. Scenario analysis

h. Sum-of-parts valuation

32. Does your valuation approach differ across industries?

Not at all 0 1 2 3 4 Yes, it changes completely

33. Does your valuation approach differ across transaction type?

Not at all 0 1 2 3 4 Yes, it changes completely

Please use the space below to add any comments you might have: