Value of Sell Side Analyst, Valuation Method and Merger, Acquisition

Value of Sell Side Analyst

Sell side analyst is working for investment bank working together with corporate banker and brokerage. Sell side analyst gain the private information from the management by from direct contact via phone or other form of communication with CEO and investor relation, therefore those information influence more significantly to their recommendation than their own analysis. The bias motivation of sell side analyst to issue the buy recommendations because it is more favourable for investment banking business to offer other services by triggering more trading, conflict of interest (Brown et al., 2015). There are also the incentives coming from the fund manager through brokerage to sell side analyst. While, corporate banking received the incentives from management. To better understand why there is incentives is first the sell side analyst received information from management and investor relations of the listed companies. The analysis by sell side analyst will be the source of information for the buy side analyst in the fund management company. Fund manager will make investment by obtaining information from buy side analyst. Fund managers have typically used a 'broker vote' to allocate dealing commissions to pay for research (Haig and Rees, 2016). The initial return at the time of the recommendations is large, even though few recommendations coincide with new public news or provide previously unavailable facts (Womack, 1996). Using the sample taken, buying the stocks with the most favourable consensus recommendations earns a higher annualized geometric mean return of 18.8 percent, whereas buying those with the least favourable consensus recommendations earns only 5.78 percent (Barber et al., 2001). Valuation process (Palepu et.al, chapter 1 & 9, 2018). Can financial statement analysis beat consensus analysts' recommendations? (Wahlen and Wieland, 2011). Sell side recommendation critics during the dot.com bubble for majority buy recommendation from of sell side analyst due to conflict of interest that their compensation coming from the banking deals and fund manager through brokerage (Palepu et.al, chapter 1, 2018). The interview with the analyst from Lehman brothers was conducted. Analyst also play role in IPO (Palepu and Healy, 2007). In addition, there is a new regulation for sell side analyst.

Paper to remember:

1. Womack, (1996) explained analyst recommendations include valuable information. They affect returns. It shows that analysts appear to have some stock picking abilities and that analyst recommendations contain valuable information.
2. Barber et al. (2011) show that after accounting for transaction costs, investors who constantly follow analyst recommendations do not earn returns above a market index. The higher transaction costs of strategies that constantly follow analyst recommendations eat up the abnormal market returns.
3. Grossman and Stiglitz (1980) observe that market prices cannot perfectly reflect all available information, or else information gatherers would earn no compensation for their costly activities. In a competitive and rational world, this costly activity must be compensated by higher underwriting fees, trading profits, and commissions.
4. Brown et al. (2015). Inside the "black box" of sell-side financial analysts

5. Palepu and Healy (2018). The dot com bubble and analyst recommendation and Lehman brother's analyst.
6. Lee, C. & So E. (2014) "Alphanomics: the Informational Underpinnings of Market Efficiency", Foundations and Trends in Accounting
7. Malkeil, B., (2003) 'The Efficient Market Hypothesis and its Critics', Journal of Economic Perspectives.
8. Damodaran A. (XXXX) Valuation as a bridge between number crunchers and story tellers.
9. Haig and Rees (2016). The changing market for investment research
10. Thomson Reuter and Market FT. (2018) Consensus recommendation.
11. Wahlen & Wieland (2011) Financial statement analysis beat recommendation. No abnormal trading profits linked to consensus analyst recommendations.

Valuation Method

Dividend discounted model, discounted cash flow model, earnings-based model will yield the same result because those are derived from the dividend discounted model. However, we need to consider the impact of accounting choice estimates on the shorter time horizons. In fact, there are differences between the earnings, discounted cash flow and dividend discounted models. Using earnings, analyst will use the ROE and its components drivers (profit margin, leverage and sales turnover) with the lower terminal value compare to dividend discount and discounted cash flow model because profit growth only account for abnormal profit. In addition, earnings can be manipulated by management. The present value of normal profit already accounted in the book value. This prevents the potential imprecise valuation in the long term because …… . In addition, there is also abnormal profit growth model to value the company. Therefore, discounted cash flow model is more appropriate for short term valuation since discounting process places higher weight on short term cash flow. This technique is the most common in practice and in teaching at business schools (Penman and Sougiannis, 1998). Cash is the king and the accounting is suspect (Copeland, 2000). In addition to those three valuation methods, there is also price multiple methods which way simpler and no need to forecast because it follows law of one price in economic rationale. The price multiples use the based measure such as revenue, profit, cash flow, book equity and book asset. Price multiples such as price to sales, price to earnings, price to book and market to book ratio. Then, compare those price multiples with the comparable industries. A multiples valuation approach considers the market influences to accounts for the short and long-term growth. However, there are challenges in the price multiples such as difficult identification of comparable firms sometime. In order to use comparable firms, they can use SWOT analysis and Porter Fiver forces. WACC is another tool for equity valuation. Multiples is popular for valuing IPO (Roosenboom, 2012). Market valuation, IPO, M&A, Corporate Governance, Competitor, Accounting Analysis.

Merger and Acquisition

The motivation of the company doing merger is to combine and share the objectives to achieve the synergy or common objectives. There are two major waves of merger indicated in the two period ranges 1998 to 2000 and 2005 to 2007 (Thomson). Moeller at.al., (2004) find that from 1991 to 2000, the acquiring firms' shareholder losses $216 billion more than 5

times, $4 billion in between 1980 to 1990, yet firms just spent as 6 times as much acquisition in the later period. The global merger volumes since 1980 shown that finance 15% and energy 14% companies is in the highest proportion, with United states dominate M&A activity by 46%. The shareholder of two entity could be the joint owners of combined entity or a new entity can be formed subsuming the merged firms. In acquisition or take over, one firm purchase the asset or entity of other company. The owner of the acquired firms could cease from the ownership anymore. The acquired firms can be the subsidiary of the acquiring company. And, the acquisitions are usually held by public offering. There are many tools to acquire companies such as proxy contest, acquisition, leveraged buy-out, management buy-out, merger, tender offer. Premium based approach to conduct valuation of the M&A benefit is using change of target value due to M&A or change of target plus acquirer due to M&A. Multiples can be used to value the targets for example; value the target as an independent entity (PV abnormal profits or FCF to target equity, assuming no merger, discounted at pre-merger cost of equity) or value the target to a potential acquirer (PV abnormal profits of FCF target equity that include any benefit from the merger, discounted at the post-merger cost of equity). Post-merger discount rate explain that most acquisitions lead to changes in the capital structure and cost of capital, remember that beta increases with leverage) Valuing the target can use the control premiums. In fact, there are many mergers fail due to irrational manager (Hagendorff et al., 2011). The hubris hypothesis proposes that managers overestimate their ability to identify and realise potential gains from merger (Roll, 1986). The motivation behind acquisitions of acquisitive targets is defensive: acquirers 'eat in order not to be eaten' (Phalippou et al., 2015).

Appendix

Valuation method formula and sample multiple choice questions.

1. Discounted Dividend Valuation

$$Equity\ value_0 = \frac{Dividend}{(1+r_e)} + \frac{Dividend}{(1+r_e)^2} + \frac{Dividend}{(1+r_e)^3} + PV\ of\ dividends\ beyond\ y3$$

$r_e = discount\ rate$

If firms have constant growth rate

$$Equity\ value_0 = \frac{Dividend_1}{(r_e - g^{div})}$$

$g^{div} = constant\ dividend\ growth\ rate\ indefinitely$

2. Discounted Cash Flow Valuation

$$Equity\ value_0 = PV\ of\ free\ cash\ flow\ to\ equity\ holders$$

$$= \frac{Profit\ or\ loss_1 + \Delta BVA_1 - \Delta BVD_1}{(1+r_e)} + \frac{Profit\ or\ loss_2 + \Delta BVA_2 - \Delta BVD_2}{(1+r_e)^2}$$

$$= \frac{Profit\ or\ loss_3 + \Delta BVA_3 - \Delta BVD_3}{(1+r_e)^3} + PV\ of\ FCF\ to\ equity\ beyond\ year3$$

$\Delta BVA = the\ change\ of\ book\ value\ of\ asset$
$\Delta BVD = the\ change\ of\ book\ value\ of\ debt$
$FCF = free\ cash\ flow\ to\ equity = profit\ or\ loss - \Delta BVA + \Delta BVD$

3. Residual Income Model

$$Equity\ value_0 = BVE_0 + \frac{Profit\ or\ loss_1 - r_e\ .\ BVE_0}{(1+r_e)} + \frac{Profit\ or\ loss_2 - r_e\ .\ BVE_1}{(1+r_e)^2} +$$

$$+ \frac{Profit\ or\ loss_3 - r_e\ .\ BVE_2}{(1+r_e)^3} + PV\ of\ abnormal\ profit\ beyond\ y3$$

4. Discounted Abnormal Profit Growth

$$Equity\ value_0 = \frac{Profit\ or\ loss_1}{r_e}$$

$$+ \frac{1}{r_e}[\frac{\Delta\ Profit\ or\ loss_2 - r_e\ .\ (Profit\ or\ loss_1 - Dividend_1)}{(1+r_e)}$$

$$+ \frac{\Delta\ Profit\ or\ loss_3 - r_e\ .\ (Profit\ or\ loss_2 - Dividend_2)}{(1+r_e)^2}$$

$$+ PV\ pf\ abnormal\ profit\ growth\ beyond\ year\ 3$$

5. Price Multiples

   a. Price Earnings Ratio
   b. Market to Book Ratio
   c. Return on Equity Ratio

6. Weighted Average Cost of Capital

$$WACC: \frac{Debt * (1 - Interest\ rate)}{Debt + Equity} + \frac{Equity}{Debt + Equity}$$

7. Market Valuation using Capital Asset Pricing Model

$$CAPM: \beta_0 + \beta_1(R_m - R_f)$$

Table 1. Topic Classification

Sell Side Analyst	Valuation Model	M&A Valuation
Process	Dividend Discount	
Recommendation	Discounted Cash Flow	
Regulation	Residual Income	
Criticism	Price Multiples	
Technology	Weighted Average Cost of Capital	
IPO	Market Valuation	

References

Barber, B., Lehavy, R., McNichols, M. and Trueman, B. (2001) 'Can Investors Profit from the Prophets? Security Analyst Recommendations and Stock Returns', *Journal of Finance,* 56(2), pp. 531-563.

Brown, L. D., Call, A. C., Clement, M. B. and Sharp, N. Y. (2015) 'Inside the "Black Box" of Sell-Side Financial Analysts', *Journal of Accounting Research,* 53(1), pp. 1-47.

Copeland, T. E. (2000) *Valuation : measuring and managing the value of companies.* Third edition.. edn. New York ; Chichester: New York ; Chichester : Wiley.

Hagendorff, J., Baker, H. K. and Kiymaz, H. (2011) 'Behavioral Effects in M&As', *The Art of Capital Restructuring: Creating Shareholder Value through Mergers and Acquisitions*, pp. 385-398.

Haig, A. and Rees, B. (2016) 'The changing market for investment research: the impact of innovations in the payment mechanism on market structure and information flows'.

Moeller, S., Schlingemann, F. and Stulz, R. (2004) 'Wealth Destruction on a Massive Scale? A Study of Acquiring-Firm Returns in the Recent Merger Wave', *NBER Working Paper Series*, pp. 10200.

Palepu, K. G. and Healy, P. M. (2007) *Business analysis and valuation.* Cengage Learning EMEA.

Penman, S. H. and Sougiannis, T. (1998) 'A Comparison of Dividend, Cash Flow, and Earnings Approaches to Equity Valuation*', *Contemporary Accounting Research,* 15(3), pp. 343-383.

Phalippou, L., Xu, F. and Zhao, H. (2015) 'Acquiring acquirers'.

Roll, R. (1986) 'The Hubris Hypothesis of Corporate Takeovers', *The Journal of Business (1986-1998),* 59(2), pp. 197.

Roosenboom, P. (2012) 'Valuing and pricing IPOs', *Journal of Banking and Finance,* 36(6), pp. 1653-1664.

Wahlen, J. and Wieland, M. (2011) 'Can financial statement analysis beat consensus analysts' recommendations?', *Review of Accounting Studies,* 16(1), pp. 89-115.

Womack, K. L. (1996) 'Do brokerage analysts' recommendations have investment value?', *The journal of finance,* 51(1), pp. 137-167.