Indé Global
Business Appraisers

Valuation updates | Valuation of synergies

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This thought leadership paper provides insights on valuation of synergies

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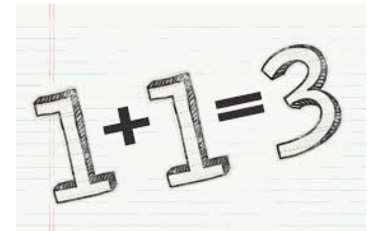
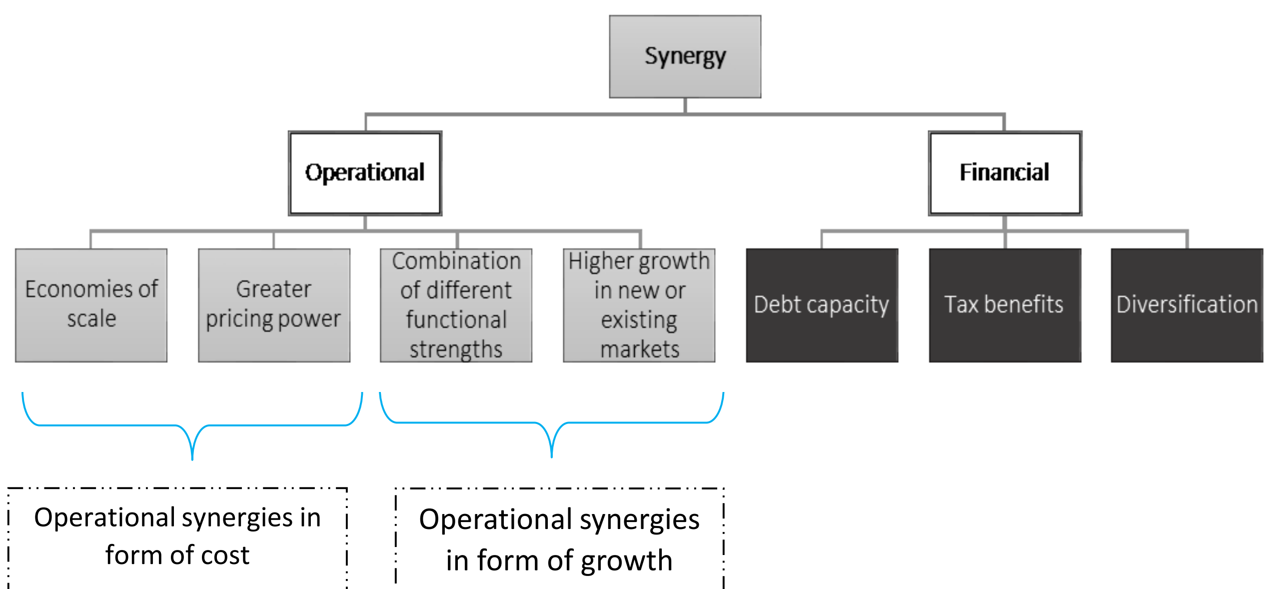
Introduction



Synergy is the increase in value that is generated by combining two entities to create a new and more valuable entity. It is that magic ingredient allowing acquirers to pay billions of dollars in premiums during acquisitions. In other words, synergy is the additional value that is generated by two combining firms, that create opportunities that would not have been available to these firms operating independently. A colloquial "*one plus one*" which on combining *equals three*, best defines what synergy is.

The table below, though not exhaustive, lists out synergies from various aspects considered in a typical M&A transaction.



➢ Operational synergy v/s financial synergy

Operational synergy	Financial synergy
Allows firms to increase their operating income from existing assets, increase growth or both. It is a combination of growth and cost synergies.	Payoff can take the form of either higher cash flows or a lower cost of capital (discount rate) or both.
Includes new products/competencies, access to new markets, decreased capital expenditure, higher growth potential etc.	Includes lower cost of debt, opportunity to optimize capital structure, tax benefit, diversification etc.

Valuation of synergies

➢ **Valuing synergy**

Valuing synergy requires appraisers to make assumptions about future cash flows and growth. The synergy can be valued by answering two fundamental questions.

Q. *What form is the synergy expected to take?*

Synergy, to have an effect on value, has to influence one of the four inputs into the valuation process -

- ✓ higher cash flows from existing assets (cost savings and economies of scale)
- ✓ higher expected growth rates (market power, higher growth potential)
- ✓ a longer growth period (from increased competitive advantages) or
- ✓ a lower cost of capital (higher debt capacity, lower beta, lower size risk premium)

Q. *When will the synergy start affecting cash flows?*

Synergies seldom show up instantaneously, but they are more likely to show up over time. Since the value of synergy is the present value of the cash flows created by it, the longer it takes for it to show up, the lesser its value.

➢ **Steps in valuing synergy**

1. Value each firm separately, using free cash flow projections and terminal value.
2. Add up the present values for the two firms estimated in step 1
3. Prepare a free cash flow projections for the combined firm by adding items on the individual firms' cash flow projections
3. Identify areas which can be impacted by synergies (Higher revenue growth or lower costs)
4. Translate the identified synergies into numbers in the combined free cash flow projections. If revenues are expected to grow faster as a result of synergy, a fast growth rate can be applied, whereas, if costs are expected to be reduced, exhibit the reduced cost in the combined free cash flow projections.
5. Calculate the value of the combined firm with synergies using the revised free cash flow projections as mentioned in Step 5
6. Compare the values derived in Step 5 with the value derived is Ste 2. The difference in value is the value of synergy.

Value of synergy = Value of the combined firm, with synergy - Value of the combined firm, without synergy

➢ **Discount rate**

The discount rate must be consistent with the risk of the synergy stream. It is widely denoted that cost synergies are less risky than growth synergies. Tax synergy is less risky than both cost synergies and growth synergies.

For example: If one has an NOL carry forward of a substantial amount of money and one has substantial cash flows of the acquirer that this NOL carry forward can be utilized, it is likely that it will be, so that would be discounted at the risk-free rate.

The next level up with respect to the discount rate and the risk of the attainment of synergies is the variability of the cash flows to earnings before income taxes. The question would be if the risk is low but not risk free so one would utilize the cost of debt. The next level up would be cash flows that are as risky as the free cash flows of the enterprise then it will be discounted at the firm’s integrated weighted average cost of capital.

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Valuation of synergies

➢ Mixing control and synergy

In many acquisition valuations, the value of control and synergy are assessed together and it is difficult to determine where one ends and the other begins. By combining the two, appraisers also run the risk of using the wrong discount rates to value each component. Synergy requires two entities (firms, businesses, projects) for its existence and is created by combining the two entities. Control, on the other hand, resides entirely in the target firm and does not require an analysis of the acquiring firm (or its valuation).

It is important that appraisers keep the value of synergy apart from the value of control so that we accomplish two objectives. First, ensure that there is no double counting. Second, devise strategies for acquisition bidding that can differentiate between control and synergy value.

➢ Common errors in valuing synergy

- Acquiring firms often subsidize target firm stockholders by misidentifying sources of synergy or using the wrong discount rate on savings from synergy.
- It is also common to see a mixing up and double counting of synergy and control values.
- Finally, over optimism about when synergy gains will show up often lead to too high a value being attached to synergy.

➢ Illustration

	Firm A			Firm B		
Particulars	**Year 1**	**Year 2**	**Year 3**	**Year 1**	**Year 2**	**Year 3**
Revenues	500	550	605	1,000	1,100	1,210
EBIT	107	120	128	224	251	269
FCFF	56	59	66	115	127	142
Present value of FCFF	**51**	**45**	**42**	**105**	**96**	**90**
Terminal value	157			339		
Enterprise value	**295**			**631**		

	Combined value of Firm A and B (without synergy)			Combined value of Firm A and B (with synergy)		
Particulars	**Year 1**	**Year 2**	**Year 3**	**Year 1**	**Year 2**	**Year 3**
Revenues	1,500	1,650	1,815	1,600	1,792	2,007
EBIT	331	371	397	368	421	457
FCFF	172	185	208	195	200	230
Present value of FCFF	**157**	**141**	**132**	**178**	**152**	**146**
Terminal value	496			549		
Enterprise value	**926**			**1,025**		

Value of Firm A (A)	**295**
Value of Firm B (B)	**631**
Combined value of firm A and B (without synergy)	**926**
Combined value of firm A and B (with synergy) (AB)	**1,025**
Synergy {(AB)- (A) +(B)}	**99**

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