

All figures mentioned in this sheet are in INR Crores, unless otherwise specified.

1. The SWAP ratio has been calculated based on 3 methods:

- a. Book Value Method – Book Value is calculated as: Net worth divided by number of equity shares for the last fiscal. Net worth is the sum of equity and Reserves & Surplus.

For Vridhi = 17.01

For Arth = 67.11

Swap Ratio = 3.94

- b. Price Earning Multiple Method – P/E ratio is calculated based upon the weighted average for the last 3 years, highest weight is given to the latest earnings. (Assumption of weights – 0.6 for 2009, 0.3 for 2008 and 0.1 for 2007)

For Vridhi = 2.43

For Arth = 3.95

Swap Ratio = 1.62

- c. Market Price Method – Average weighted market price of scrips were considered taking the cut off date as 31st Dec, 2009. (Assumption of weights – 0.6 for 2009, 0.3 for 2008 and 0.1 for 2007)

For Vridhi = 42

For Arth = 228.5

Swap Ratio = 5.44

Swap Ratio Range	1.62	5.44
Swap Ratio Average	3.67	
Swap Ratio Offered	5	

For all calculations, please refer to *Swap Ratio* sheet of *Arthvridhi_AV54486.xls*.

By quantitative analysis the swap ratio offered shall be in the range of 1.62 to 5.44 and approximately close to the average figure of 3.67 as calculated by the 3 methods mentioned above. But, Qualitative analysis based on the value of synergy, the swap ratio is considered to be 1:5 and the justification for the same is provided in answer no 3.

2. Calculation of the Net Synergy expected –

Step 1: The firms involved in the merger are valued independently, by discounting expected cash flows to each firm at weighted average cost of capital for that firm.

Step 2: The value of the combined firm with no synergy is obtained by adding the values obtained for each firm is the 1st step.

Step 3: The effects of synergy are built into expected growth rates and cash flows, and the combined firm is re-valued with synergy.

Step 4: Value of Synergy = Value of combined firm with Synergy – Value of combined firm without Synergy.

For all calculations, please refer to **Synergy** sheet of *Arthvridhi_AV54486.xls*.

Assumptions:

- Expected cash flows for the next 3 years are based on the weighted moving average for the last 3 years. Weights remain same as given earlier in Answer 1.
- Cost of Capital for Vridhi = 5% (Since the equity is less as compared to other deposits and borrowings)
- Cost of Capital for Arth = 12%
- Cost of Capital for the combined firm = 10%

For Vridhi:

Cost of Capital	5%
NPV of Net Profit (2010-12)	-163.971

For Arth:

Cost of Capital	10%
NPV of Net Profit (2010-12)	5592.237

Value w/o Synergy (NPV from 2010-12)	5428.266
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Synergy is expected to be in the form of:

- Staff reductions – Reduced employee cost by 5%
- Economies of Scale – Reduced Selling, Operating & Misc expenses by 5%
- Improved market reach and industry visibility – Combined firm is assumed to have the same Income as earlier

As only 10% of Arth's infrastructure is located in common geographical location as that of Vridhi, income will not be affected much because of acquisition.

Considering the above effects, the NPV of the net profit for the next 3 years is calculated.

	Without Synergy	With Synergy
Cost of Capital	10%	10%
NPV of Net Profit (2010-12)	5640.18	9395.676
Net Expected Synergy	3755.496	

3. Appropriate premium:

Current net worth of Vridhi is negative if we consider significant amount of NPAs. Reason behind offering a premium is the Synergy derived as explained in answer 2.

Considering the current market price of the shares of Vridhi and Arth, the swap ratio comes out to be 1:8.26 but as quantitative technique suggests, the Swap ratio should be in the range of 1.62 to 5.44.

We suggest to offer a swap ratio of 1:5, thus offering a premium of Rs. 21.5 per share of Vridhi to retain the share holders and at the same time sharing the expected net synergy derived in the next 3 years. Synergy is expected in the form of reduced cost of operations and sales expenditure because of the readily available bank branches and ATMs of Vridhi Bank.

This will result in a total premium to be paid as Rs. 2150 Cr against a net synergy effect of Rs. 3755.496 Cr.

The promising returns for Arth's share holders will boost confidence in the current share holders of Vridhi to retain their shares after acquisition and swap.

The suggested Swap ratio will dilute the stock ownership by 20 Cr shares of Arth which comes to around 16% dilution.

Swap Ratio based on Current Market Price	8.26
Swap Ratio Offered	5
Premium for the customers based on Current Price	21.50
Total Premium paid	2150

For all calculations, please refer to *Synergy* sheet of *Arthvridhi_AV54486.xls*.