

This Thing Called Debt!

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Anatomy of Returns

Total Assets = Total Liabilities + Total Equity

Total amount of stuff used in the business to make profits (supplies, inputs breeding stock, machinery, etc.)

How much of that stuff is financed by the “bank”, that is, debt capital.

How much of that stuff is financed by your own money, that is, equity capital.

When profits are made, those profits are a return to all the assets, some of which is a return to your money invested (equity capital) and some of which is a return to the bank’s money (debt capital).



John is interested in creating an add-on business for the farm to help support the return of his son. He has \$60,000 of equity and is willing to borrow up to \$40,000 more.

Is it financially a good idea?

Case 1 (Equity Only)



John decides not to borrow, but does invest his \$60,000 of equity in assets that are put to work and earns an 8% Rate of Return on Assets (ROROA)



In Conclusion

| Case | 1 | 2 | 3 |
|-----------------------------------|------------|-----------|-----------|
| Total Assets Invested | \$60,000 | \$100,000 | \$100,000 |
| Equity Capital | \$60,000 | \$60,000 | \$60,000 |
| Debt Capital | \$0 | \$40,000 | \$40,000 |
| <i>i</i> -rate | irrelevant | 6% | 10% |
| Total Return After Interest Costs | \$4,800 | \$5,600 | \$4,000 |
| ROROA | 8% | 8% | 8% |
| ROROE | 8% | 9.3% | 6.7% |

The End



Rate Of Return On Assets

$$\text{ROROA} = \frac{\text{NFIFO} + \text{interest paid} - \text{unpaid labor/mgt}}{\text{Total Assets}}$$

Rate Of Return On Equity

$$\text{ROROE} = \frac{\text{NFIFO} - \text{unpaid labor/mgt}}{\text{Total Equity}}$$