

## THE FIRST CHICAGO METHOD

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The First Chicago Method is a variant of the standard capitalization method. It is applied when valuing entities in specific situations and may also be used for a Reporting Unit, which may be an Emerging Activity. This could be because it is in an early stage of development, or a turn-around. In both situations, its value mainly depends on a Business Plan and Financial Projections.

Popularised in the 1970s by the Equity Group of the First Chicago National Bank, the method looks forward from three to five years and establishes a future value by capitalizing the projected Net Income at that time for several Scenarios. These amounts are then converted to their "present values" as of the valuation date.

Usually, three different "Outcome Scenarios" are prepared: "Success", "Survival" and "Failure". The Success Scenario is normally compliance with the Business Plan. Survival is based on less growth and delays in bringing the projects to completion, necessitating higher costs, while Failure relates to a continuation of the status quo, or worse. Sometimes the planned operations may involve initial losses and result in a value below the additional capital needed.

Using a rate of return required by venture capitalists, the three values are weighted by the probability of each Scenario occurring and then added together. An estimate of the additional equity required is then deducted to determine the Net Income Value. This can also be considered a variant of the Discounted Cash Flows method, which assumes no Cash Flows during the projected period and relies solely on the Net Income Values, under several different sets of circumstances, as Terminal Amounts.

### **Example of Application**

In valuing a Reporting Unit that is an Emerging Activity, the First Chicago Method may be appropriate. Consider a small, recently acquired subsidiary of a security company. Its business is to supply Internet protection to customers already served by the parent. Losses were incurred in 2002, the first year of operations under the new ownership, and are also expected for 2003, with profits envisaged thereafter. The valuation date is February 28, 2003, the end of the first quarter.

As growth in revenues of more than 20% a year is anticipated for at least the following five years, and the business has high Operational Gearing (in the Success Scenario, only 20.5% of costs are variable), a Capitalization Rate of 5.7% (a PER of 17.5 times) was selected using the Build-up method.

The table below contains the steps required by the First Chicago Method to obtain the Fair Value of the Reporting Unit for each Scenario. The 25% Discount Rate is based on the return required by venture capitalists for early-stage businesses.

## The First Chicago Method

	Year to 30 November 2005			\$ '000
	Success	Survival	Failure	
Revenue	6,000	5,000	4,500	
Fixed costs	3,500	3,500	3,500	
Variable Costs	900	750	675	
Operating Costs	4,400	4,250	4,157	
Pre-tax Profit	1,600	750	325	
Income Tax	(640)	(300)	130	
Net Income	960	450	195	
Capitalized at 5.7%	16,838	7,893	3,420	
35% Discount Factor	0.512	0.512	0.512	
Present Value	8,621	4,041	1,751	
Capital Required	(1,250)	(1,250)	(1,250)	
Current Fair Value	7,371	2,791	501	

Management determined that the most likely outcomes of the various Scenarios were: Success (70%), Survival (20%) and Failure (10%), as shown below. Combining them leads to \$5,766,000 as the high end of the range of Fair Value.

	\$ '000		
	Success	Survival	Failure
Fair Value	7,371	2,791	501
Probability	70%	20%	10%
Contribution to Fair Value	5,158	558	50

The worst situation, according to management, has probabilities of 40%, 35% and 25%, which amounts to \$4,039,000 at the low end of the range.

	\$ '000		
	Success	Survival	Failure
Fair Value	3,352	2,782	497
Probability	40%	35%	25%
Contribution to Fair Value	2,941	974	124

Using the First Chicago Method, the Fair Value of the Reporting Unit is between \$4,039,000 and \$5,766,000. This produces a mean of \$4,902,500, plus or minus 17%. For an early-stage or turnaround situation, a normal range of Fair Values by different methods could be as high as plus or minus 20%. Applied to a more stable entity, the spread should be closer, perhaps plus or minus 10%.