

BUSINESS VALUATION METHODS

(All Valuations **MUST BE** based on Historical Data)

I. Adjusted Book Value

Take the Book Value of net worth
-assets not acquired
+liabilities not assumed
+fair market value of assets acquired
+any net worth adjustments
=Adjusted Book Value

II. Capitalized Adjusted Earnings

First Step: Adjust Historical Earnings

Seller's Discretionary Cash Flow	Last Year
Net Profit	50.0
+Officer's salary	+70.0
+Discretionary expenses	+30.0
-New Owner salary	-60.0
Adjusted Profit	90.0

Second Step: Get the adjusted profits for 5 years then do a Weighted Average of the Adjusting Earnings

Year	Earnings	Weight	Adjusted
95	\$ 50	1	\$ 50
96	\$ 30	2	\$ 60
97	\$ 70	3	\$ 210
98	\$ 60	4	\$ 240
99	\$ 90	5	\$ 450
Totals		15	\$1,010
			/15
Average			\$ 67 (rounded)

Third Step: Calculate a Discount Rate

Determine T-Bill Rate	5.0%
Determine Offset Risk Rate √ Establish rate of return based on risk factors √ Establish rate of return based on general economy	12.0%
Determine Offset Illiquidity Rate	3.0%
Total the Rates	20.0%

Fourth Step: Take the weighted average of the adjusted earnings and divide by the discount rate.

Example:

$$\$67/.20 = \$335$$

III. Discounted Future Earnings

First Step: Adjust Historical Earnings

	Last Year
Net Profit	50.0
+Officer's salary	+70.0
+Discretionary expenses	+30.0
-New Owner salary	-60.0
Adjusted Profit	90.0

Second Step: Get the adjusted profits for 5 years then do a Weighted Average of the Adjusting Earnings

Year	Earnings	Weight	Adjusted
95	\$ 50	1	\$ 50
96	\$ 30	2	\$ 60
97	\$ 70	3	\$ 210
98	\$ 60	4	\$ 240
99	\$ 90	5	\$ 450
Totals		15	\$1,010
			/15
Average			\$ 67 (rounded)

Third Step: Determine the discount rate

Determine T-Bill Rate	7.0%
Determine Offset Risk Rate √ Establish rate of return based on risk factors √ Establish rate of return based on general economy	12.0%
Determine Offset Illiquidity Rate	6.0%
Total the Rates	25.0%

Fourth Step: Estimate growth, both real and inflationary (for this example, we are estimating a 5% growth rate).

Fifth Step: Multiply the estimated earnings for each year by the estimated growth rate until estimated earnings for the next **ten** years are determined.

Sixth Step: Multiply the adjusted, weighted earnings by the estimated growth (1 plus the growth rate) to determine the estimated earnings for the first year.

Seventh Step: Using the net present value table, multiply the estimated earnings for each year by the factor for the discount rate for each respective year to determine the discounted value of future earnings.

Eighth Step: Total the discounted earnings.

Ninth Step: Determine the residual value by subtracting the growth rate from the discount rate and dividing the difference into the discounted earnings for year ten.

Tenth Step: Add the residual value to the total discounted earnings.

Year	Previous Year Earnings	Growth (1+5%)	Adjusted Earnings	Factor (25%)	Net Present Value
1	67.0	1.05	70.4	0.80000	56.3
2	70.4	1.05	73.9	0.64000	47.3
3	73.9	1.05	77.6	0.51200	39.7
4	77.6	1.05	81.5	0.40960	33.4
5	81.5	1.05	85.6	0.32768	28.0
6	85.6	1.05	89.9	0.26214	23.6
7	89.9	1.05	94.4	0.20972	19.8
8	94.4	1.05	99.1	0.16777	16.6
9	99.1	1.05	104.1	0.13422	14.0
10	104.1	1.05	109.3	0.10737	11.7
Net Total					290.4
Residual					58.5
Total					348.9

IV. Cash Flow Method

First Step: Identify Available cash for debt service via rule of thumb, sources/uses, or any other acceptable method.

	Last Year
Net Profit	10.0
+ Depreciation	5.0
Adjusted Profit	15.0

Second Step: Choose a reasonable maturity and market interest rate for the financing requested.

	Years
Fixed Asset Purchases	10
Working Capital	7
Average Maturity	8.5

Interest Rate	12%
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Third Step: Reverse-compute the amount of total funds that the cash flow can support given the maturity and interest rate chosen (using an amortization table or calculator).

Cash flow of \$15,000 annually at 12% for 8.5 years is an annual debt service for the total amount of \$ 79,696.69 (computed on a monthly payment basis) or \$77,295.78 (computed on an annual payment basis).

Cash flow valuation establishes a range of \$77,000 to \$80,000.

V. Gross Revenue Multiplier

Please use the attached table (Top 30 Business by SIC Code) and the following:

- SDC or SDCF = Seller's discretionary cash flow [same as Method II, step 1]
- EBIT = Earning before Interest and Taxes
- EBITDA = Earning before Interest, Taxes, Depreciation and Amortization

Example:

Last Year's Sales * Multiplier

Top 30 Type of Business by SIC Code

(Counted from 10/98 to 8/02)

Ranking	# of Loans	SIC Code	Description	Rule of Thumb ¹ or Multiplier
1	1900	5812	Eating and Drinking Places	2X SDCF or 25 – 35% of annual sales
2	405	7231	Beauty Shops	1.5X SDCF or 4X mthly sales + inventory
3	337	7538	General Automotive Repair Shops	35% of annual sales, 1.5X SDCF
4	325	5411	Grocery Stores	1 – 2X mthly sales or 11% of sales
5	260	8041	Offices and Clinics of Chiropractors	20 – 70% of annual fees + FF & E
6	235	5999	Miscellaneous Retail Stores	25 – 50% annual sales + inventory
7	231	7389	Business Services	63% of annual sales
8	228	8351	Child Day Care Services	2X SDCF or \$1500 - \$3000/per enrolled child
9	175	8011	Offices and Clinics of Doctors of Medicine	20 – 40% of annual fees or 1X SDC
10	165	7299	Miscellaneous Personal Services	70 – 75% annual sales
11	165	5813	Drinking Places (Alcoholic Beverages)	40 – 45% annual sales + inventory
12	163	5947	Gift, Novelty, and Souvenir Shops	4X mthly sales + inventory or 1.5X SDCF
13	142	7991	Physical Fitness Facilities	1 year's annual revenues
14	129	4212	Local Trucking Without Storage	5X EBIT
15	127	7379	Computer Related Services	57% of annual revenue
16	124	5531	Auto and Home Supply Stores	35% of annual sales + inventory, FF & E
17	120	5461	Retail Bakeries	4X mthly sales + inventory, FF & E
18	117	0781	Landscape Counseling and Planning	1 – 1.5X SDCF + FF & E
19	113	6411	Insurance Agents, Brokers, and Service	100% annual commissions
20	112	7999	Amusement and Recreation Services	45-50% of annual sales
21	112	5992	Florists	34% of annual sales + inventory
22	108	1751	Carpentry Work	4 - 5X EBIT
23	105	5541	Gasoline Service Stations	3X EBITDA – business only
24	105	7349	Building Cleaning and Maintenance Services	50% of annual revenue or 1.5X SDCF
25	105	8021	Offices and Clinics of Dentists	1 – 1.5X SDCF + FF & E, 50-70% Revenue
26	105	4213	Trucking, Except Local	1 – 1.5X SDCF + FMV of fixed assets
27	103	5941	Sporting Goods Stores and Bicycle Shops	4X mthly sales + inventory
28	99	7215	Coin-Operated Laundries and Dry-cleaning	70 – 100% annual sales or 2.3 – 2.5X SDCF
29	94	7532	Auto Body and Upholstery Repair Shops	35% of annual sales or 1.75X SDCF
30	94	5399	Miscellaneous General Merchandise Stores	15 – 25% of annual sales + inventory
31	92	1799	Special Trade Contractors	45 – 55% annual sales
32	90	1711	Plumbing, Heating, and Air-Conditioning	24% of annual revenues or 1.5X SDCF
33	88	5499	Miscellaneous Food Stores	4 – 5X SDCF
34	88	2752	Commercial Printing, Lithographic	50% of annual sales and inventory, FF & E 1 – 1.5X SDC

¹ Source: *The Business Reference Guide 2002* tenth edition, by Tom West, 2002.