Valuation Methodologies

No single methodology is universally applicable in determining the fair market value of a business. A complete and objective business valuation which looks at and compares a number of methods is generally the *starting point* for sellers and buyers of on-going businesses. Armed with a professional opinion of value using several different analyses will give the shareholders a better understanding of the merits of offers that may be received by buyers.

> **In the final analysis, it is the market that will dictate the value**; i.e. ***the price and terms that a business will transfer between a willing buyer and seller, when neither is under any compulsion to buy or sell, and both parties have access to all relevant facts and understanding of the business being sold.***

Of primary importance in determination of value, it is critical to assess the future prospects of the enterprise. While historical financial performance is a valuable starting point, future performance will ultimately validate the value today for the entity.

The valuation analyst must also assess the operation of the company **today** and make a call with input from the client regarding what are the **future** revenues, costs, capital expenditures, working capital requirements, industry competitive threats, technology changes and other opportunities and impediments that face the company. Those acquirers who fail to risk-adjust each of these internal and external factors of company performance will increase the likelihood of failure in their acquisition strategy.

Several valuation methodologies will be briefly discussed here for completeness with commonly known valuation practices. These include:

1. Present value of unlevered future cash flows and related analyses
2. Various cost approaches
3. Market values from closed transactions and data from publicly traded companies
4. IRS Rev. Rul. 68-609/Rev. Rule 59-60, et al

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It is important to note that business valuations have many purposes. The aim here is the true value from a financial prospective of the on-going business in a merger/acquisition transaction. Other valuation purposes may include legal proceedings, disputes between shareholders or partners, estate planning and resolution, ESOP regulations, and capital raising. Analysts calculating values in these latter areas may have different objectives in determining value.

Frequently promulgated are “rules of thumb” measures of value, like EBITDA or revenue multiples to determine value. These are proxies for a more rigorous analysis. It is our opinion that sole use of these proxies is dangerous; clearly, analysis of the internal (company specific) and external (industry specific) factors of valuations discussed below need to be understood to fully understand the value of a specific enterprise. The use of the multiples is pervasive, however. While obtaining actual transaction data would be great to have, factual data is rarely made public.

There are several factors to keep in mind with respect to business valuations:

1. Value is specific to a *specific point in time*...value will change with the market, the economy, the specific factors impacting the business or industry...it fluctuates.

2. In the final analysis, the business is valued on its **future cash flow**. Historical cash flows are an important tool, but not the only tool, in assessing future cash flows. Adjusted EBITDA and historical EBITDA are important, but future cash flows are also impacted by change in working capital and CAPEX in the specific business. And if the business is being sold or transferred, the determined value will be the value in the new owner's hands. Synergies of the acquisition accrue to the new owner.

3. The Market will always dictate the value of your business. In addition, the liquidity in the market will impact valuations. With the ebb and flow of investor liquidity ("dry powder"), valuations will tend to fluctuate as well.

4. Generally, valuations will tend to be higher with acquirers who are "strategic" companies, or those "hybrid" investors who already have a platform established in your industry. Pure-play financial investors will tend to have the lower valuations.

5. Valuations will be higher for control of ownership positions, less for minority positions.

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Present Value of Unlevered Future Cash Flows

A rigorous analysis of the present value of the unlevered, after tax future cash flows, less working capital and CAPEX requirements, discounted at the cost of capital is considered the financially accurate and correct estimate of business enterprise value. Such an analysis is performed twice: the first values the firm in the hands of the present shareholders, employing the cost of capital of the firm, with business as usual factors incorporated into the forecast of unlevered cash flows.

The second analysis starts with the first and overlays what, if any synergies (positive, but also negative), are brought to the firm by the acquirer, and using the cost of capital of the acquirer. A range of values is therefore established which will bracket price negotiations between buyer and seller.

The financial analyst utilizing this present value formula for determining enterprise value takes into account:

- Analysis of the existing business, margins, costs, revenues, and operating factors.
- Analysis of current financial condition of the company, balance sheet strengths or weaknesses, debt capacity, operations capacity utilization, marketing strengths or impediments to growth and capital needs.
- An analysis of the exogenous factors in the industry, macro-economic factors, domestic and offshore competitive threats and opportunities, customer trends, etc.
- The impact is assessed of these external trends on the forecast of future revenues, costs, after tax cash flows without existing leverage and after capital needs based on management's best estimates of working capital and capital expenditures.
- An important element here is to scrub the line items of the profit / loss statement. Expenses classified as "business" related may often not be and these non-business owner expenses need to be added back to determine the true earning power of the business.
- A determination is made of the weighted average cost of capital of the firm and the present value of these after-tax unlevered cash flows is calculated. An assumption is made regarding terminal value, and excess working capital (if present and not required in the business) is added to the present value. The present value calculation is made for the existing shareholder case and the case of the company owned by the acquirer.
- Proforma, post-acquisition financials of the acquirer are prepared with assumed acquisition financing to pressure-test the valuation assumptions. If the acquirer

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is able to finance the acquisition with an acceptable blend of equity and debt as dictated by current market conditions, and on a proforma basis the acquired company indicates an acceptable return on the acquirer's equity, the valuation has positive validation.

An example of the Present Value of the unlevered cash flow model is shown below. The discount factor (WACC: weighted average cost of capital) is determined specifically for the company. (Enterprise value = stock value + debt - cash)

Example Company Valuation						
Grand Avenue Capital Valuation Model	base case: draft					
$US 000						
Assumptions						
Revenue / Operating profit Growth, %/yr, post 2018	3.0%		Terminal Value Growth Rate, %			1.0%
Tax Rate, %, estimate average	0.0%		Current long term debt, $			20,532
working capital / revenue %	9.5%					
Cost of Equity Capital Calculation			**Cost of Debt Capital Calculation**			
Risk free interest rate, 30 yr T-bond	3.4%		Cost of Debt, pre-tax			5.00%
Beta (estimate of volatility) OC/PPG: 1.2	1.5		Cost of Debt, after-tax			5.00%
Equity Risk Premium	8%					
Cost of Equity	10.3%		**Capital structure**			
small company(5%) + country risk (5%)premium	10.0%		debt			34.0%
lack of liquidity premium	10.0%		equity			66.0%
CPIC Bahrain specific cost of equity	30.3%		**WACC**			21.7%

	Most Recent Fiscal Period 2014 est	**Year 1** 2015	**Year 2** 2016	**Year 3** 2017	**Year 4** 2018	**Year 5** 2019
Revenues	26,871	77,705	118,541	182,460	205,875	212,051
Net Pre-Tax Operating Income(unlevered)	919	21,878	33,286	63,799	71,986	74,146
Taxes on income	0	0	0	0	0	0
NOPAT (Net Operating, pre-interest, Profit after tax)	919	21,878	33,286	63,799	71,986	74,146
+ Depreciation	3,091	8,679	10,551	9,892	13,222	13,222
- change in working capital	6,676	6,671	3,879	6,072	2,224	587
- CAPEX	78,684	78,684	177,168	1,500	1,500	1,500
Free Cash Flow	-81,350	-54,798	-137,210	66,119	81,484	85,281
Enterprise Value (100% present value of free cash flows at WACC)	123,942					
Value of debt	20,532					
Current cash	12,878					
Pre-money value of 100% of the equity	116,288					

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A proxy of this type of analysis used widely is multiples of adjusted EBITDA. Adjustments are made to "reported" EBITDA for any owner-related expenses or non-recurring expenses. See: "*Good Advice from your investment banker if you are thinking of selling your company*" in the Role of Advisers section of this website for examples of adjustments made to reported EBITDA.

Cost Approaches to Valuation

Various cost-based methodologies are employed, and briefly discussed here. Because these methods generally ignore the earnings generating capabilities of the firm, these methods are discounted in terms of the value of the ***on-going concern value***.

- **Replacement cost approach**: Typically this method is important in a "make vs. buy" decision and focuses on assets only. Rather than acquiring a company, the acquirer determines that the replacement cost of the target's assets is much lower than the target's on-going business value. It ignores, for instance, the value of the target's intangibles as position in the market or market share, value of a highly trained workforce and experienced management, unique relations with customers or vendors, value of intellectual property and trade secrets, etc.

- **Adjusted Asset cost approach**: The balance sheet of the target can be adjusted to reflect current market values of assets and liabilities. This is an appropriate method for valuing a real estate holding company or limited partnership interest, but not helpful in determining the on-going value of a stream of cash flows from an operating company.

- **Book Value approach:** The accounting book value of an enterprise determined from the accumulated retained earnings is generally used to compare acquisition values to a benchmark book value. This does not provide a true indication of the market value of the enterprise, nor does this take into account the free cash flow that can be generated by the enterprise.

- **Appraisal value:** The difference between the appraised value of the assets and the historical cost liabilities gives a value that is useful in liquidation or bankruptcy scenarios. Again this value has little relevance to the on-going value of the business enterprise.

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Market Valuation Data Applied to the Target Company

Obtaining actual market data on closed transactions and applying this data to a target company is an indispensable measure of market value agreed to by a willing buyer and seller. Information on transaction between ***public*** companies is readily available; however, data on ***private*** smaller firms is typically difficult to obtain, and even analysts who follow a particular industry have difficulty in making direct analogies between private company deals.

Not surprisingly, however, such data on **private** companies, when obtained, is a compelling metric when determining and negotiating the value of the target company. What is often not known, but overlooked, is data relative to comparisons of product mix, unique vendor relationships giving rise to differential costing, management impact on performance, market share, size, proprietary and differential technical capabilities, trade secrets and other intellectual property, etc.

Unfortunately, market comparable data for operating companies are misused and overused, *particularly when few data points are available*. Market comps are better utilized in the real estate industry, and used equipment markets.

Public markets are generally considered efficient in valuing companies. Daily stock prices reflect the value assessment of many buyers and sellers. Public company data is considered a valuable benchmark in valuing on-going entities. Each comparable company's data (EBITDA % of sales, gross margin % of sales, etc.) is compared to the target company's metrics and the target's value is determined by relatively weighting the metrics of the number of public companies in the sample

Actual market data, however, is a set of valuable information available to the informed acquirer who relies principally on the present value techniques described above. Public-to-Private discounts are applied, as well as discounts for size of the enterprises, and will give some guidance as to the valuation of the private company. See: "*Public to Private Valuation Discounts*" in the Valuation section of this website.

Excess Earnings approaches (IRS Rev. Rule 68-609/59-60)

The IRS has weighed in with methodology that it suggests being used only when no better basis is available for valuing the intangible assets of a business using a "formula" approach. Fortunately, the science of financial analysis has progressed to minimize the use of this methodology in conventional M & A transactions.

This formula approach suggests that the average annual return on the ***tangible*** assets is deducted from average total earnings of the company and the remainder, if any is considered to be the amount of the average annual earnings from the ***intangible*** assets. This latter amount is capitalized by a percentage of 15-20%, and the former capitalized at 8-10%. Lower factors are utilized for stable companies with low risk; higher factors are utilized for companies in which the hazards of business are relatively high.

The Revenue Rulings suggest that the past earnings to which the formula is applied should fairly reflect the probable future earnings.

What Does Valuation Mean?

A valuation is the process of determining the fair market value of a company in a notional context, meaning that the valuation is a) time specific, b) there is no negotiation, and c) there is no exposure to the open market. Valuations are highly subjective calculations that aim to determine the fair market value of a company. There are many common situations when valuations are required, including business reorganizations, expropriations, employee share or stock option plans, ESOPs, mergers and acquisitions (M&A), and shareholder disputes.

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Grand Avenue Capital Partners is a FINRA licensed broker/dealer authorized to manage security transactions and merger/acquisitions. Our firm's bio is attached which includes the backgrounds of our team and advisers.

Our firm focuses on sell- and buy-side investment banking assignments for domestic North American client companies with revenues $10-200 million which are typically profitable and established. We are prepared to serve clients globally; approximately 25% of our practice is in Asia where we have been involved in substantially larger transactions with world-scale companies and investors. We have been engaged by private companies in China with up to $2.6 billion in revenue, seeking growth capital private equity placements. We have managed investment banking assignments in Europe, Mexico and Asia and understand the complexities of cross border transactions.

Our principals and advisers have owned and operated companies of the type we seek as clients. We have manufactured and sold products, managed extensive work forces and as owners, generated profits and cash flows. Accordingly, we have great affinity with the business owners and entrepreneurs we work for.

We maintain a proprietary data base of institutional investors (over 1,300 such groups worldwide) wherein we have cataloged their investment/acquisition criteria. Matching these criteria with clients' needs is a routine activity for us in making a market for private companies. Our particular expertise is to similarly cultivate strategic investors/acquirers developing the specific operating synergies that match our clients' parameters.

We welcome your input and referrals regarding companies wishing to grow through acquisition, companies whose owners are interested in selling their businesses, and divestitures of divisions of public companies. We also welcome the opportunity to review business plans that would require capital via equity or debt placements. Currently, all our active engagements came from referrals.

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