BUSINESS VALUATION REVIEW

Vol. 16, No. 1 | March 1997

CONTENTS

The Dynamics of Restaurant Business Valuation

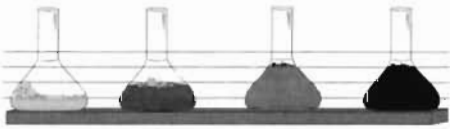
By CHRISTOPHER H. VOLK and JEREMY L. SACKS, CPA

The restaurant business today is in the biggest consolidation period ever. This is naturally to be expected. America has been branded and chained by restaurant franchises and operating companies for approximately 40 years. The growth period is coming to a close and the consolidation period is upon us. What was once a business for the small businessman or woman has given rise to the need for size. Margins are down and competition is fierce in this mature industry. This fact has mandated greater economies of scale and sophisticated operating technology with larger, professionally managed restaurant operating companies bring to bear. Diversification is important too, and the new breed of restaurateur is doing just that. Increasingly, companies are operating multiple brands in diverse geographic locations. What was once thought of to be one of the easiest businesses to start has only just begun to erect barriers to entry. The first barrier is the creation of dominant regional winners in the fight for brand market share. The second is the emergence of the mega operator with a competitive edge which results from a formidable infrastructure and economies of scale. Increasingly, the larger operators are inheriting this once-fragmented industry. Consolidation is the result.

The acquisition of one company by another is essentially an investment activity. And like most investment activities, the real money is generally made when the investment is made, not when it is sold. It is also true that real money can be lost when the investment is made. This article provides a framework for the determination of value of a restaurant enterprise. Along the way, it also takes some time to debunk some common myths regarding business values and corporate capitalization. In the end, the valuation framework is translated into an actual model to illustrate the sensitivity of values to interest rates, loan terms, real estate ownership, cash flow growth potential and other variables.

Myth #1. Restaurant prices are based on restaurant sales.
The value of any business is a function of cash flow, pure and simple. Cash flow, not sales, is what pays the debt service and gives the shareholders their return. Still, in the restaurant business, there is a frequent discussion of restaurants which are sold for a certain percentage of sales. For this to be a relevant benchmark would require that all restaurants generate similar cash flow margins. This is not the case. Even within the same chains, restaurant margins may differ between operators and markets. And margins may also differ from year to year. Lastly, some restaurant company acquisitions include real estate, while others do not. This difference will also have a profound impact on so-called sales multiples.

The Four Ingredients of Business Value



Four ingredients go into determining the value of a business. The main ingredient is the absolute amount of existing cash flow. The other three ingredients determine the value of the cash flow. The first of these is the amount of the purchase price of a company which can be financed. The second is the prospects for cash flow increases from existing and future stores. And the last of the ingredients is the required rate of return on shareholder equity. The last two ingredients determine the amount of equity which will be available to make the purchase. The combined amount of debt and equity equals the value of the business.

Myth #2. Development agreements have a defined value.
Often, chain restaurant operators will acquire development rights along with the operations of other stores. Development rights have no universal value. The value of such rights is wholly dependent upon the expected future cash flows of forthcoming newly developed properties. The expected cash flows are a function of projected sales, development costs and the timing of the opening of each new restaurant property. In addition, the cost of development rights generally excludes up-front franchise fees, which should be viewed as an added cost.

Existing Cash Flow: The Main Ingredient

The foundation of any business value is existing cash flow. Cash flow is often defined as EBITDA, or earnings before interest, taxes, depreciation and amortization. From this number, we would tend to subtract what we might call "functional depreciation." This is the amount of ongoing capital expenditures which would be required to maintain a restaurant in order to retain its current cash flow. In other words, the average amount of money spent annually to replace worn out or obsolete equipment and building components. Whereas depreciation and amortization as typically shown on financial statements are economic concepts, functional depreciation is more of a cash flow concept and pertains to the entire restaurant industry. The value of any business is clearly foremost a function of the absolute dollars of cash flow.

Apart from revenue and expense levels, the absolute dollars of cash flow are impacted by one other major factor: The amount of real estate ownership. Within the restaurant industry, the amount of real estate ownership generally constitutes the greatest single differences between the balance sheets of restaurant operating companies. The decision to rent or own restaurant locations effects the absolute amount of EBITDA and meaningfully impacts corporate valuation. This is because the valuation of cash flow can include or exclude real estate. So a restaurant operator who acquires the business of another operator which includes the real estate at all of the locations is buying more than just restaurant operations; he is purchasing both restaurant operations and real estate. This distinction has a profound impact on aggregate business value.

Myth #3. Cheaper debt equates to a higher return on equity.
Lower payments and lower equity investments, not lower interest rates, generate higher returns on equity. Since lenders are looking foremost at debt service capacity, companies are generally able to borrow less the shorter the debt amortization schedule. Lower borrowing capacity equates to a lower business valuation multiple. So, it is possible for earnings (which includes a company's interest payments) to be higher, while cash flow (which includes both interest and principal payments) is actually lower. This is why it often makes sense for companies to lease, rather than own, their real estate. Leases typically represent the longest term financing available with the lowest payments.

The Second Ingredient: The Amount of Financing

Available borrowings and borrowing terms have a direct impact on the value of existing cash flow. The more that can be borrowed against the cash flows of a restaurant business, the more that business is worth. This fact directs borrowers to look for lower monthly payments, since lower monthly payments mean that more borrowings can be supported by the same amount of cash flow.

Lenders to the restaurant industry look to the amount of cash flows available to make loan payments as the key determinant of borrowing capacity. The benchmark they use is typically a fixed charge coverage ratio, which is the number of times that corporate cash flow can pay for debt service.

The fixed charge ratio is typically computed as follows, with typical minimal targets in the range of 1.25:1 or greater:

$$\frac{\text{Earnings Before Interest, Taxes, Depreciation, Amortization and Lease Payments}}{\text{Lease and Loan Payments}}$$

In determining loan terms, lenders will generally choose to match the terms of their secured loans to the expected life of the assets financed. For example, real estate can generally be leased or financed through mortgages of up to 20 years. Equipment is generally financed for seven years or less. And cash flow loans for business value are generally for ten years or less. The more that can be financed, the greater will be the reported cash flow multiple. The availability of real estate to finance will meaningfully impact cash flow multiples, which will be discussed later in this article.

It is important to note that lenders traditionally look to existing cash flows to determine the amount of available financing. In the heady LBO days of the 1980s, this was not always true. A number of restaurant companies were purchased with so much debt that they had to achieve cash flow growth in order to repay the loans. In many cases, companies were purchased with "interest only" loans with single date maturities. Buyouts were even structured with loans which had no payments at all until maturity. The result of these extended debt terms was to raise the valuation multiples which were paid for restaurant businesses. A subsequent result was a widespread failure of restaurant LBO's. Today, lenders are less likely to accept expected future cash flow increases from existing or future properties as a source of repayment. The value of future expected cash flows, then, must typically be paid for with shareholder equity.

Myth #4. More financial leverage means more risk.
People pay an inordinate amount of attention on the amount of company debt in relation to book shareholder equity. This is especially true in the case of the restaurant industry, where some companies own their real estate and other companies rent their locations. With the prevalence of "off balance sheet" debt, financial leverage is of minimal value as a measure of risk. Risk is better measured by debt service coverage, discretionary cash flow and by operating leverage. Operating leverage is the amount by which cash flow goes up or down given a defined change in sales levels.

The Third Ingredient: Future Cash Flow Increases

The prospect for cash flow growth has the biggest impact on cash flow multiples. There are two sources of cash flow increases: The first is from existing stores and the second is from expected future stores. Within the restaurant industry, same store cash flow growth is generally unimpressive. Once a restaurant is built, it is typically unreasonable to expect sales and cash flow growth which exceed expected inflation rates. In fact, the history of price competition within the restaurant industry has often meant that average unit sales and cash flows have not kept pace with inflation. A look at publicly-traded restaurant stocks reveals the absolute truth: Expected cash flow increases from existing stores do not drive the bulk of cash flow growth; new store openings do.

The greater the expected rate of cash flow growth, the more a business is worth. Herein lies the value of development rights or the potential for the construction of new units. However, the right to build a restaurant does not carry with it some universal value. The value of future stores is a function of the amount and timing of their expected future cash flows (make sure to include up-front cash outlays). So a new restaurant which is expected to open in five years is worth a good deal less than one which in expected to open in one year. In turn, the amount of the anticipated cash flow from a new restaurant will be a function of expected sales and expense levels. This fact underscores an important point regarding new store development:

New stores which are expected to produce high net cash flow margins are worth more than are stores with lower cash flow margins. So, five new stores of one chain or in one market may generate significantly greater cash flows than five stores of another system or market.

The Fourth Ingredient: Shareholder Equity

Cash flow which remains after debt service goes to the shareholders. And just like the debt equation, shareholders who are willing to accept less will be willing to pay more for a business. Lower required shareholder returns effectively raise the cash flow multiples of businesses.

Debt is the cheapest form of capital and shareholder equity the most costly. Therefore, the purchaser of a company should ideally seek first to maximize the use of borrowings before turning to equity. Within the consolidation of the restaurant industry, the presence of various venture capital groups are making the cost of equity clear. Expected pre-tax rates of return in excess of 30% are not uncommon. A key notion here is the concept of pre-tax. The cost of debt is tax deductible, while the cost of equity is not. Therefore, a 30% pre-tax return on equity translates into an approximate after-tax return of 18% (30% x (1 - the marginal state and federal tax rates (we used 40%)). An 18% after-tax rate of return is not an uncommon expectation for investors in a private, closely held company. People who specialize in valuations might use varying means, such as the Capital Asset Pricing Model or Arbitrage Pricing Theory, to arrive at an estimated cost of equity. A discussion of how to determine what equity rates of return should be is beyond the scope of this article. The important point is that required after-tax returns for privately held restaurant corporations will typically be higher than the expected returns for publicly-traded restaurant companies.

Different investors can and do take a different look at the cost of equity. Some investors may place a higher cost on cash flows from unopened restaurants than they do on existing, proven cash flows. Some investors may estimate lower pre-tax returns because of their use of partnerships, limited liability companies or Subchapter S corporate structures which do not pay any corporate level income tax. The differences between investors and how they perceive risk has a lot to do with the variances in the prices they are willing to pay for the same company.

Myth #5. Cash flow multiples are easily benchmarked.
There is a natural tendency for people to want to compare the prices realized from the sale of restaurant markets. As this article illustrates, there are a number of factors which can drive a cash flow multiple northward, including the prospects for future cash flow growth, the amount of borrowings that can be used and the cost of shareholder equity. But the biggest difference is often whether the purchase price of the company includes real estate. This difference alone can result in large swings in purchase price multiples.

Creating A Model

Now that the fundamentals for restaurant business valuation have been set forth, a valuation model can be prepared. In this model, we presumed a ten unit operator of a major hamburger chain, with each of the stores owned fee simple. Average store sales are $1.3 million with an operating cash flow of approximately 15%, or $196,277. Other key inputs for the model are shown Table 1.

The first step in determining the value of the business is to estimate how much can be borrowed. The ten restaurants have a combined cash flow of $1.96 million before debt service. Based upon presumed lending criteria (which allows for a 1.25:1 fixed charge coverage ratio, 20 year real estate financing, five year financing for goodwill and equipment and a 10.5% borrowing rate), a total of $10.37 million can be borrowed with an annual debt service of $1.57 million.

Table 1

Chain Restaurant Valuation Model

Existing Unit Hard Asset Value	$10,000,000
Existing Unit Sales	$13,000,000
General and Administrative Overhead	3%
Existing Operating Cash Flow	$1,962,771
Existing Unit Secured Debt (L, B & E)	$10,000,000
Existing Unit Unsecured Debt	$371,883
Existing Unit Debt Service Requirement	$1,570,217
Existing Unit Free Pre-Tax Cash Flow	$392,554
Existing Unit Fixed Charge Coverage Ratio	1.25
Existing Store Equity Pre-Tax Discount Rate	30%
New Store Equity Pre-Tax Discount Rate	40%
Cash Flow Growth Rate	3%
Number of Existing Stores	10
Borrowing Rate	10.5%
Real Property Mortgage Term (months)	240
Equipment Financing Term (months)	60
Business Value Term (months)	60
Number of New Stores Annually	2
New Unit Amounts Financed	$950,000
Equity Required per New Unit Developed	$100,000
Pre-Tax Projected Cash Flow per New Unit	$86,064

borrowed with an annual debt service of $1.57 million.

The second step in restaurant business valuation is to determine the value of the equity. After debt service, shareholders are left with free pre-tax cash flow of $392,554 from the existing ten stores. The value of this cash flow is estimable through the use of a constant growth formula at the assumed pre-tax discount rate of 30% and the assumed cash flow growth rate of 3% as follows:

$$\frac{\text{Equity Cash Flow}}{\text{(Discount Rate - Growth Rate)}} \quad \text{or} \quad \frac{\$392{,}554}{(30\%-3\%)} = \$1.45 \text{ million}$$

To the equity value of the existing ten stores, we would need to add any value which might result from the rights to develop new stores. The model presumes the development of two new stores annually at a cost of $950,000 apiece. This is actually broken down into $750,000 for land and building and $200,000 for equipment, which is financed using the same presumed borrowing rates and terms as the existing stores. The up-front equity in each store is assumed to be $100,000 and the annual pre-tax cash flow is assumed to be just over $87,000. This means that there is actually a deficit cash flow of $13,000 in the first year, followed by years of positive cash flows which are assumed to grow at a rate of 3%. The pre-tax equity new unit discount rate is assumed to be 40%. We used the higher 40% equity discount rate for new stores to allow for the probability of error in order to realize our true overall pre-tax target of 30%. Our model estimates the cash flows from these new units for 21 years and discounts each year's cash flow back at the 40% rate. The final year's value is enhanced by a residual factor which applies the constant growth formula to the final year's cash flow. In this case, the growth rate is assumed to be 8%, which is equal to the 3% annual growth for each store plus an added growth factor which arises from continued presumed new store development. The formula therefore is as follows:

$$\sum \text{PV(Future Cash Flows)1-21} + \text{PV}\frac{\text{(Cash Flow in Year 21)}}{(40\%\text{-}8\%)} = \$834{,}427$$

The total value of the equity is equal to $1.45 million plus $834,427, or $2.24 million. With the equity value determined, the total value of the company is equal to the debt plus the equity, or $12.6 million. This is equal to 6.4X the operating cash flow from the existing ten stores. Without the new store development value, the existing stores have a total value of $11.8 million, which equates to a multiple of approximately 6X cash flow. This is the multiple which will be used to draw comparisons in the sections that follow.

Sensitivity of the Multiple to Real Estate

Cash flow multiples are sensitive to the issue of real estate ownership. Let's say that the unit-level economics of two multiunit chain store operators is identical. Each produces a cash flow before interest, taxes, depreciation and amortization and lease payments of $1.9 million as shown above. However, one of the operators rents all ten properties and the other owns all of the real estate. The result is that the cash flow is reduced by $840,000 annually in rent expense. Now, this cost might be the same as the lease cost which might be paid by an acquiring company, but it has the impact of reducing EBITDA. With all ten stores rented, EBITDA of $1.1 million, a fixed charge coverage requirement of 1.25:1 and no long- term real estate borrowings, the cash flow multiple contracts. As Table 2 illustrates, if half the real estate were rented, the multiple would have been 4.27X and if all of the real estate were rented, the multiple would be 3.77X. The EBITDA multiple does not contract because of less equity value. The equity value is the same. The EBITDA multiple contracts because there is less need for real estate capital. The leased real estate is already effectively financed.

Table 2

EBIDA Multiple Sensitivity to Real Estate Ownership

Portion Leased	Cash Flow Multiple
0%	6.00
20%	5.40
50%	4.27
70%	3.28
100%	3.77

The Impact of The Equity Discount Rate

As stated earlier, lower equity discount rates will give rise to higher valuation multiples. At a pre-tax discount rate of 30%, the cash flow multiple of the existing units is 6X. At a discount rate of 20%, the multiple would rise to nearly 6.4X. While a rise from 6X to 6.4X seems modest, the impact on the equity portion of business value is material (remember, business values equal equity plus debt). As Table 3 illustrates, the 20% discount rate effectively raises the amount of equity value by 55%. The fact that leverage can make a small move in overall EBITDA have a large impact on equity value should not be forgotten when looking at the other sensitivity tables of the valuation model.

Table 3

EBITDA Multiple Sensitivity to Equity Discount Rates

Equity Discount Rate	Existing Store Mutiple	Change From Base Case	Impact on Equity Value
20%	6.39	6.6%	55.5%
25%	6.15	2.6%	21.7%
30%	6.00	-	-
35%	5.89	-1.8%	-15.1%
40%	5.81	-3.1%	-26.3%

The Impact of Borrowing Terms

As noted earlier, lower cash payments which achieve the same fixed charge coverage ratios mean that the same amount of cash flow can support greater debt. So, a 1% drop in the borrowing rate on the real estate financing to 9.5% raises the multiple from 6X to 6.12X. But a lease on the real estate at the same rate actually can have a greater impact, raising the multiple to 6.23X. The results of the sensitivity are shown in Table 4. Remember, a small move in the cash flow multiple can have a large impact on equity value.

Table 4

EBITDA Multiple Sensitivity
On Borrowing Term and Rate

Real Estate Term	Borrowing Rate 9.5%	10.0%	10.5%	11.0%
180	5.91	5.85	5.80	5.74
240	6.12	6.06	6.00	5.93
Lease	6.39	6.31	6.23	6.15

The Impact of Expansion

Expansion has a greater impact on valuation multiples than any other single variable. Taken by themselves, the ten stores have a value of 6 times their cash flow. But if we add two stores annually, and if those stores achieve $1.5 million each in sales, then the expected growth in cash flow is enough to raise the multiple to 6.4X at new store sales of $1.4 million. Note that expected new store sales of $1.2 million leave the multiple unchanged. This is because $1.2 million in sales produces no incremental return on the investment required for each store. This table underscores that the right to build new restaurants has no universal value. The value is a function of the timing of new store openings, the number of new stores and expected

Table 5

EBITDA Multiple Sensitivity to Expansion

New Units Opened Annually	New Unit Sales $1,500,000	$1,400,000	$1,300,000	$1,200,000
-	6.00	6.00	6.00	6.00
2	6.64	6.42	6.20	6.00
5	7.61	7.06	6.51	6.00
10	9.23	8.12	7.02	6.00
15	10.84	9.19	7.53	6.00

EBITDA Multiples vs. Earnings Multiples

Before concluding this primer on restaurant company valuation, it should be pointed out that cash flow multiples are far different from Price/Earnings multiples which may be familiar to the reader. A P/E multiple is simply the relationship of equity value to net income, whereas a cash flow multiple is the ratio of the valuation of an entire business to its pre-tax cash flow. The differences between the two are meaningful.

For example, in Table 5, a growth rate of 15 stores annually raises the cash flow multiple to 10.84X. The equivalent approximate P/E ratio would have been 46.3X. As noted earlier, leverage can make small moves in the cash flow multiple translate into large moves in equity value. A price/earnings multiple of 46.3X shows what can happen to values when companies have tremendous new store development opportunities.

Table 6

Price/Earnings Multiple Sensitivity to Expansion

New Units Opened Annually	New Unit Sales $1,500,000	$1,400,000	$1,300,000	$1,200,000
-	5.95	5.95	5.95	5.95
2	11.33	9.49	7.66	5.95
5	19.40	14.81	10.22	5.95
10	32.84	23.67	14.49	5.95
15	46.29	32.52	18.76	5.95

Bid vs. Ask

Information is not universal and not everyone will be using this article or its valuation model for a road map. So there can be wide discrepancy between the prices which buyers and sellers of restaurant companies have in mind. From the vantage point of the seller, it is typically important to seek multiple offers in order to keep the buyers honest. From the vantage point of the buyer, cheaper debt with lower payments can reduce the amount of required shareholder equity. We have seen companies purchased with virtually no shareholder equity, but which have the same amounts of free cash flow as companies which have been purchased with a great deal of shareholder equity. Often the difference comes down to how the acquisition was financed. Restaurant companies can therefore meaningfully add to their shareholder value by understanding financing alternatives.