VALUATION

What's That Piece of Paper Really Worth? Commercial Contract Valuation

By David Wanetick, AVA

Samuel Goldwyn, the movie mogul famous for his malapropisms, once said that an *oral agreement* was *not worth* the paper it was written on. Well, what is a codified agreement worth? To address this question, I would like to walk you through an analysis of a contract held by a bicycle seat manufacturer, with the largest bicycle manufacturer in the world. It is a four-year contract, with an option to renew for two years.

The bicycle seat manufacturer, Seating Sisters (I have disguised the company's identity to protect confidentiality) commissioned us to prepare a valuation because it is seeking to raise a round of funding and believes that the value of its intangible assets, including its contracts, are being overlooked by the investment community. This particular contract has an assignment provision; and the customer has agreed to allow Seating Sisters to sell or assign the contract at its discretion, so long as the assignee is equally capable of manufacturing the required seats.

One of the challenges in valuing commercial contracts is that the valuation analyst does not have the benefit of a body of research to act as a roadmap. We can, however, embark on what many have described as "mission impossible" by determining whether any of the three primary valuation methods—cost, market, and income—provides a framework for valuing contracts. As you will see, I believe we can rely on the income method as a suitable framework.

COST METHOD

If we apply the cost method, we must assume that a contract's value is a function of the cost of producing it. The cost method is not appropriate because the costs associated with drafting a contract are un-tethered to its value.

When Henry Kravis was negotiating the acquisition of RJR Reynolds, RJR's board could not decide which of its suitors it should sell to by the deadline that Kravis gave them. RJR's board asked for more time to contemplate Kravis' acquisition offer. Kravis agreed, and he and his lawyer quickly scribbled out a handwritten agreement on a legal pad that granted RJR's board another 45 minutes to deliberate, in return for a $45 million option payment. How much did it cost to produce that agreement, and what was it actually worth?

Conversely, business is rife with companies paying tens of millions of dollars in legal fees for business ventures and acquisitions that deliver negative shareholder returns.

MARKET METHOD

The market method does not work for valuing contracts since there is no market for contracts. The limited efforts at selling contracts have been retarded by several factors. Charles McCormick, a lawyer with McCormick & O'Brien in New York City, points out:

- Customer contracts can be terminable on relatively short notice (30 to 90 days) for any reason. This optionality works against the potential transferor.
- Many contracts can be immediately terminated by the customer if the vendor becomes insolvent or declares bankruptcy. (However, such provisions are not always enforceable due to the *ipso facto* principle.)
- Commercial contracts are not always assignable. Some contain outright restrictions on assignment. In other cases, various state court decisions (such as those in New York) have held that if the services to be performed under a contract are such that the customer is relying on some particular or unique aspect of the provider, assignment may require the customer's consent. Seeking customer consent may also present an opportunity for the customer to renegotiate the contract, which could ultimately make the contract less valuable to the performing party.

INCOME METHOD

Contracts are both legal documents and intangible assets from which benefits

are expected to be derived. Despite most commercial contracts not being assignable or saleable, and in light of legal limitations, by their very definition and by process of elimination, the income method is most appropriate for valuing contracts.

The abbreviated formula for valuing a contract is:

CONTRACT VALUE =

deposits + [(anticipated value of contractual income − deposits) x discount rate] + value of ancillary economic benefits + (recoveries * discount rate) − transaction costs

CONTRACT VALUATION EXERCISE

The complexity of valuing contracts can be crystallized by discussing a simple example that parallels an assignment that I recently completed. Let us suppose that Seating Sisters has executed a contract with Bicycle Brothers in which the former will supply the latter with bicycle seats over the next four years, with an option to extend the contract by an additional two years.

Figure 1 provides a summary of this contract.

FIGURE 1: CONTRACT SUMMARY

Contact Summary
Bicycle Brothers and Seating Sisters

Customer: Bicycle Brothers   **Supplier:** Seating Sisters
Purpose of ContractSeating Sisters will supply Bicycle Brothers with bicycle seats
Product Lines Affected by ContractAdult and Children's Bicycle Seats

A Review of Contract Terms

	Initial Prices per unit	Annual Price Adjustments	Initial Annual Volume	Annual Volume Changes
Adult Bicycle Seats	$9.00	-6.0%	500,000	10%
Children's Bicycle Seats	$7.00	-6.0%	250,000	12%
Deposit from BB to SS	$125,000			

	Contract Duration	Option to Renew[1]	Right of First Refusal[2]	Retraction Clauses[3]
Adult Bicycles	4 years	Yes, 2 years	No	Yes
Children's Bicycles	4 years	Yes	2 years	No

Notes:

1 – Seating Sisters has an option to renew the contract on the same terms for an additional two years. Seating Sisters must be in compliance with all material terms of the contract and provide Bicycle Brothers with six months notice of its intention to exercise this option.

2 – Bicycle Brothers intends to expand its offerings of children's bicycles beyond its legacy markets in the northeastern United States. Should Bicycle Brothers manufacture bicycles for new geographic markets, Seating Sisters would have a right of first refusal to provide such seating requirements provided that it was in compliance with all material terms of its contract and its prices would be within 3% of the most competitive external bid.

3 – Seating Sisters is required to meet a variety of standards in terms of product delivery, the winning of industry recognition rewards, safety testing, etc. in order to keep its contract intact. Should Seating Sisters' bicycle seats fail to meet their requirements, Bicycle Brothers can retract certain of its orders according to a schedule which was part of the initial agreement.

DEPOSITS

The first step in determining the value of a contract is to assess whether the buyer has made any non-refundable deposits to the seller. Any such deposits made shortly after the execution of the contract should be recorded without discounting for the time value of money. In our case study, non-refundable deposits total $125,000.

ANTICIPATED CONTRACTUAL INCOME

The anticipated value of contractual income can be broken into two parts: performance-related and contingency-related. The performance-related value is the product of prices that the buyer agrees to pay and the number of units the buyer agrees to purchase throughout the term of the contract, minus product liability claims. In our case study, the total revenue anticipated to be received from Bicycle Brothers is $26,513,157. This total revenue is reduced by deposits, fixed costs, variable costs associated with fulfilling the contract under review, and taxes.

The allocation of fixed costs is typically derived by dividing the percentage of fixed costs associated with fulfilling a contract by the firm's total capacity. A similar calculation—profits yielded by the contract divided by total profits—is undertaken to determine the amount of tax liabilities that are associated with the contract.

To determine the contingency value, we first assess the expected values that could be derived if contract contingencies were exercised. Secondly, we multiply these expected values by the probabilities that such contingencies will be exercised.

In our example, three contingencies affect Seating Sisters' contract value: renewal options, rights of first refusal on

supplying bicycle seats to new markets, and retraction clauses that could result in Seating Sisters losing some of its markets if it does not deliver according to contract terms. Revenues associated with these contingencies are as follows:

Renewal options	$7,438,046
Rights of first refusal	$4,666,361
Retraction clauses	($2,191,225)

The difficulty in valuing contingencies lies in estimating their probabilities of occurrence. The following are among the indicators that we can assess to determine the odds of the occurrence of such contingencies:

- **Historical performance.** What has Bicycle Brothers' history been with respect to expanding its market geographically?

- **Expected market conditions.** Seating Sisters' willingness to exercise its option to renew its contract with Bicycle Brothers will be a function of expected economic conditions. Its contract calls for delivering its seats to Bicycle Brothers for an annual 6 percent discount. If costs of raw materials rise, or decline less than 6 percent a year, the renewal option may not be worth exercising.

- **Changes in business plans.** Have the parties changed their business plans? Perhaps Bicycle Brothers has decided not to offer children's bicycles outside of its legacy markets. If so, Seating Sisters' right of first refusal would be worthless.

- **Success of competitors in the industry.** What is the magnitude of product improvements expected to be introduced by competitors? If

competitors' products render Seating Sisters' products uncompetitive, Bicycle Brothers could exercise its right to retract the markets currently awarded to Seating Sisters.

We can obtain guidance on these issues through both primary and secondary research. The valuation analyst should interview industry authorities (such as executives and trade association officials) and conduct channel checks by speaking with suppliers, distributors, and retailers. This fundamental due diligence should be complemented by reading the trade press, local newspapers, relevant blogs, and results from Internet searches. (**See Figure 2 on page 12.**)

DISCOUNT RATE

A discount rate should be applied to the anticipated value of contractual income in order to reflect Seating Sisters' costs of capital, opportunity costs, and risks of inflation eroding the value of future income. To this value we should add the risks of the contract being violated. While the natural inclination might be to base the discount rate for the contract on Seating Sisters' overall discount rate (with maybe a discount or premium), I don't believe this is always the best starting point. All assets and business endeavors have dramatically different risk profiles, which can lead to substantial deviation from the company's overall cost of capital.

To gain more specificity as to what can go wrong with a contract—and thus what needs to be priced into the discount rate—I interviewed more than two dozen seasoned business, litigation, and contracts lawyers.[1] Based on those inter-

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1 Among the most helpful in constructing a discount rate model for assessing contract value were Robert J. Feinberg, shareholder with Giordano, Halleran & Ciesa in Red Bank, NJ; Francis J. Sullivan, partner at Hill Wallack in Newtown, PA; and Richard Collier, partner at Collier & Basil in Princeton, NJ.

FIGURE 2: ANTICIPATED VALUE OF CONTRACTUAL INCOME

ANTICIPATED VALUE OF CONTRACTUAL INCOME

		2010E	2011E	2012E	2013E	2014E	2015E
CONTRACTUAL REVENUES							
Adult Bikes	Price per unit	$9.00	$8.46	$7.95	$7.48	$7.03	$6.61
	Units	500,000	550,000	605,000	665,500	732,050	805,255
	Revenues	4,500,000	4,653,000	4,811,202	4,974,783	5,143,925	5,318,819
Children's Bikes	Price per unit	$7.00	$6.58	$6.19	$5.81	$5.47	$5.14
	Units	250,000	280,000	313,000	351,000	393,380	440,585
	Revenues	1,750,00	1,842,400	1,939,679	2,042,094	2,149,916	2,263,432
Baseline Revenues		6,250,000	6,495,400	6,750,881	7,016,877		
Total Baseline Revenues				$26,513,157			
Option to Renew Contract							
Value of Option – Pre-Probabilities						7,293,842	7,582,251
Probability of Renewing						50%	50%
Value of Option – Post Probablities						3,646,921	3,791,125
Total Value of Renewal Option							$7,438,046
Rights of First Refusal							
Size of Opportunity			2,210,880	2,327,614	2,450,513	2,579,900	2,716,118
Probability of Receiving			30%	40%	50%	40%	30%
Value of Opportunity			663,264	931,046	1,225,256	1,031,960	814,835
Total Value of Right of First Refusal					$4,666,361		
Retraction Clauses							
Size of Opportunity			(1,395,900)	(1,443,361)	(1,492,435)	(1,543,178)	(1,595,646)
Probability of Occuring			50%	40%	30%	20%	10%
Value of Risk			(697,950)	(577,344)	(447,730)	(308,636)	(159,565)
Total Value of Retraction Clause					($2,191,225)		
Total Revenues		6,250,000	6,460,714	7,104,582	7,794,402	4,370,245	4,446,396
				$36,426,340			
COSTS							
Fixed Costs		200,000	208,000	216,320	224,973	233,972	243,331
Variable Costs							
Units		750,000	830,000	918,600	1,016,732	562,715	622,920
Costs per Unit		3.00	2.79	2.59	2.41	2.24	2.09
Total Variable Costs		2,250,000	2,315,700	2,383,491	2,453,447	1,262,820	1,300,075
Total Costs		2,450,000	2,523,700	2,599,811	2,678,419	1,496,792	1,543,406
Pre-Tax Earnings		3,800,000	3,937,014	4,504,771	5,115,983	2,873,453	2,902,991
Tax Rate		37%	37%	37%	37%	37%	37%
Net Profits		$2,394,000	$2,480,319	$2,838,006	$3,223,069	1,810,276	$1,828,884
Discount Rate							35%
NPV							$5,963,964
Deposits							$125,000
NPV (net of deposits)							$5,838,964v

views, I posit that the model for calculating discount rates for contracts is:

DISCOUNT RATE

risk-free rate + exposure to general economic factors + exposure to industry economics + exposure to counterparty's internal factors + impact of legal factors - available remedies

The risk-free rate is a fundamental underpinning of cost-of-capital analysis. It is equivalent to the yield on the U.S. government debt with a duration that most closely matches the duration of the contract under review.

Exposure to economic factors. As recent years have demonstrated, all companies are at risk of being affected by a deep recession. Companies that produce products for which their customers have an elastic demand (meaning they buy drastically less when income levels fall) will fare worse than companies whose customers have an inelastic demand for their products. Thus contracts covering customers who have elastic demand should have higher discount rates than contracts which cover end users who have inelastic demand.

The formula for elasticity is change in demand divided by change in price (or income). The analyst can review the extent to which demand was affected by past price hikes or drops in national income and project such trends onto future discount rates. Be careful to avoid double discounting. Thus, if the anticipated value of contractual income part of the model factored in a recession, we apply a smaller addition to the discount rate.

Exposure to industry economics. Entire industries are exposed to common competitive factors, legislation, regulation, and government retribution. The more pressure that these externali-

ties place on an industry's profits, the less economical it becomes to comply with the affected companies' contracts.

A host of competitive factors can squeeze out an industry's profits, including rising costs of materials or labor. Price wars—such as the incipient one between Amazon.com and Wal-Mart in the book space—and a company viewing its competitors' primary market as a loss leader can rapidly devastate the profitability of an industry. An entire industry can face a bleaker future when its suppliers forward-integrate or its customers backward-integrate. A scandal rocking a leading industry player or the announcement of it incurring a massive loss can make it much more difficult for other industry players to secure necessary capital. Technology can erase the rationale for an entire industry, as happened to pagers when mobile phones became *de rigour*.

Structural issues that affect the profitability of an industry are low switching costs (the less expensive it is for customers to switch vendors, the more competition will ensue) and the stakes of the existing players (the higher the stakes of the industry participants, the more fiercely they will compete). Low barriers to entry—such as nominal capital requirements or non-existent regulatory hurdles—are forerunners to more competitors. High barriers to exit accentuate inter-company rivalry and occur when government regulations (e.g., prohibiting insurance companies to fold-up their operations) or stranded costs (e.g., when a company has expensive machinery that it cannot liquidate) essentially force companies to remain in business.

Legislation and regulations—such as those requiring more environmental safeguards or facilitating the unionization of an industry's workforce—can raise costs of doing business for entire

industries. When the government targets industries for higher taxes and less freedom of operation (as has happened to health insurance, pharmaceutical, and oil companies in recent months) the profitability for the entire industry will be suppressed.

The analyst must keep current with news relating to the industry under review, to determine the likelihood of these kinds of events impacting the reviewed company's (Seating Sisters) and its counterparty's (in our case Bicycle Brothers) ability to comply with their contracts.

Exposure to counterparty's internal factors. A company that includes its contracts among its assets is vulnerable to the prevailing internal dynamics occurring with its counterparties. Foremost among the factors to consider in this regard is the likelihood that the counterparty will breach or cease to honor the contract. Companies are more likely to break their contracts under the following 11 scenarios:

1. Demands by their shareholders. If a privately held company sells part of its equity to a private-equity or hedge fund, its new institutional investors will push management to deliver more dramatic earnings growth. This pressure may cause management to reevaluate its contracts.

2. Internal influencers at counterparty. Companies that have many access points for outside parties to influence changes in policy are more likely to break contracts than companies that have fewer decision makers. It is probably easier for an outside special interest group to create internal pressure for a change in policy if the targeted counterparty has a large board of directors, foreign subsidiaries, or franchisees, than it is for a special interest group to effect a policy change at a company whose sole shareholder makes

all of the important decisions.

An example of how outside special interest groups can cause internal pressure is Greenpeace's success in stopping Shell from dumping its Brent Spar oil rig in the North Sea in the mid-1990s. Even though Shell's UK operations were responsible for Brent Spar, Greenpeace targeted Shell stations in Germany because that nation's citizens were deemed to be more sympathetic to environmental causes. As a result, Shell stations in Germany suffered a 50 percent contraction in revenues which caused Shell's German operations to pressure Shell's UK operations to reverse course on the Brent Spar matter.

3. Peer companies' contracts have been broken without consequence. In our example, if other bicycle manufacturers have broken their contracts with suppliers without any negative repercussions, then Bicycle Brothers may feel less risk and stigma with breaching its contracts. This is also true when other customers have broken agreements with the company in question (i.e., Seating Sisters). Obtaining this information often requires rigorous due diligence, but its value often merits its expense.

4. Better alternatives become available. If a better product or a product of comparable quality priced more competitively becomes available, the counterparty may be inclined to find a reason to terminate the contract.

5. Reduced ability to perform. If Seating Sisters were to deliver faulty seats to Bicycle Brothers, Seating Sisters could be in breach of its contract. However, even when a vendor fails to perform to expectations in one dimension of its relationship with its customer, that lapse can be used as a justification to break a different contract. As attorney Francis J. Sullivan[2] explains, companies that can-

2   See footnote 1.

not adhere to "meet or release" contract provisions are at risk of losing their contracts. Such meet or release clauses typically require that suppliers (Seating Sisters) must either meet their customer's (Bicycle Brothers) volume and/or price demands or they must release their customers from their contracts.

6. The company in question has a known no litigation policy. Some managements have publicly stated that they are in the (bicycle seating) business, not in the litigation business. The articulation of this policy can make counterparties (e.g. Bicycle Brothers) feel less inhibited about breaking their contract.

7. Vendor's financial dependence on the contract. Customers who realize that their vendors depend heavily on one contract are more likely to believe that they can breach various provisions of it without penalty. This situation could arise if the customer realizes that it is one of the vendor's largest customers, that the vendor would be in breach of its loan covenants if it lost its contract, or that the vendor's shareholders could move to replace management if it lost the contract in question.

8. Disparity in size. When the customer is much larger than its vendor, the customer is more likely to breach the contract in the belief that the vendor has no recourse. One factor in this decision is that the vendor may not be able afford to litigate against its much larger customer in litigation.

9. New management at counterparty's company. New management teams often want to shake things up. Foremost among the items to be shaken up are contracts with vendors. Holders of contracts (Seating Sisters) are especially vulnerable if the new management team (Bicycle Brothers) has worked with the contract holder's competitors.

10. Likelihood of counterparty

becoming acquired. If Bicycle Brothers were to be acquired, Seating Sisters would be confronted with a greater possibility of having its contract abrogated. This is due to the new management risk factors discussed above, as well as the possibility that the acquiring company might wish to consolidate its bicycle making operations, terminate its bicycle making operations, or renegotiate with Seating Sisters to exercise its increased bargaining power resulting from its larger scale.

11. Reputation of the counterparty. Counterparties that have a reputation for entering into contracts with no intention of honoring them carry tremendous risks for companies that consider their contracts to be assets.

The following are eight scenarios in which a counterparty is less likely to break contracts with its vendors:

1. Unacceptable concentration of suppliers. A dominant customer may not wish to injure its vendor (even if it could do so without triggering litigation) when doing so could result in remaining potential vendors having excessive power over the customer.

2. Proprietary technology. Bicycle Brothers is less likely to break its contract with Seating Sisters if Seating Sisters has proprietary technology.

3. Customers associate value with the supplier's products. If a supplier advertises its components and creates demand for them, it then becomes more difficult for a customer to break an agreement and use another vendor. For instance, when Intel created quite a bit of demand for its semiconductors via its Intel Inside advertising campaign, the use of competing semiconductors by computer manufacturers would have been perceived as using lower quality processors.

4. Cross ownership. Contracts are less

likely to be broken when cross ownership exists between customers and vendors. The same is true when there is overlap among the companies' boards of directors.

5. Relatively small component. Bicycle Brothers would be less likely to break its contract with Seating Sisters if such contract represented a small percentage of its purchased parts. Companies generally attempt to enhance their profitability rather than damage their competitors (let alone suppliers) and there is less upside to renegotiating small contracts.

6. Length and integration of business relationship. A customer would be less inclined to breach a contract with a long-term vendor, especially when the two companies depend on one another for a variety of products and services.

7. Position in the customer's value chain. Parts that are crucial for enabling the sale of end products are less vulnerable to contract renegotiation. For instance, a brakes manufacturer would typically have more leverage over an auto maker than a producer of coffee cup holders. Companies that manufacture parts that are installed at the beginning of an assembly process are less vulnerable to contract breaches than parts that are manufactured at the end of assembly lines.

8. Inability to accumulate inventory. Customers that have difficulty accumulating inventory produced by a particular vendor are less likely to violate their agreements with such vendors. Included in the characteristics of inability to accumulate inventory are services (such as air travel and consulting), products that have short shelf lives and products that are expensive to warehouse and insure.

Legal issues. A host of legal issues can impact the probability that a con-

tract will be violated or terminated. Among the metrics that can be used to estimate such probabilities are:

1. Construction of the contract. In many cases, contracts that are shorter in length (in terms of word or page count) reflect a longstanding business relationship between the two signatories. On the other hand, longer contracts may indicate a lack of fundamental trust between the parties. Longer contracts also have more exposure to error in drafting. Thus, as a sweeping generality, shorter contracts (relative to contracts covering similar situations) deserve lower discount rates than longer contracts. Similarly, highly specific contracts are easier to break, since there are more conditions that can be violated. In my experience, older contracts are more susceptible to being violated, as the players that negotiated the original contract move on (and no longer administer it) and as economic realities deviate from the expectations underpinning the contract.

2. Who drafted the contract. Law firms that have an expertise in writing similar contracts and large law firms that bear the accoutrements of success signal that their contracts are more difficult to violate. Lawyers who have represented the client—or similar clients in the same industry—for an extended period of time are more likely to draft contracts in light of possible points of contention. If lawyers are integrated into initial rounds of business discussions, their comments can be more congruously woven into the agreements as opposed to when business people reach an agreement and then hand it off to lawyers to draft accompanying contracts.

3. Governing jurisdiction. The jurisdiction in which contract litigation is likely to be heard has an impact on the propensity of a counterparty to violate a contract. If contract disputes between

Bicycle Brothers and Seating Sisters were to be heard in Seating Sisters' home city, juries may be more sympathetic towards Seating Sisters. So Bicycle Brothers may be more reluctant to violate its contract with Seating Sisters. However, if a judge were to hear the same litigation in a district where neither of the litigants had a major presence, Bicycle Brothers may believe that it has a better chance of winning the case. As attorney Robert J. Feinberg[3] points out, it is important to ascertain which party (if either) has the right to select venue and whether a judge or jury will rule on the dispute.

4. Termination features. Contracts that allow one party to terminate the agreement merely by notifying the other party—say 90 days beforehand—have a higher risk of expiring prematurely than contracts that have more restrictive termination provisions.

5. Potential damages. If there is a risk that a counterparty violating a contract will be liable for large damages (or treble damages or a class action in some cases), there is less risk in that party breaking the contract.

6. Personal guarantees and insurability. Contracts that require personal guarantees by principals of one party are less likely to be violated by that party. Contracts covered by insurance policies are more likely to be violated by the party which has obtained the insurance, because of adverse selection and moral hazard issues.

Available remedies. The final element in the discount rate calculation is the incidence of contracts becoming violated, and the associated costs that would be mitigated if there were effective remedies. Among these remedies are these four:

1. Ability to transfer the contract. The easier it is to transfer the contract

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3   See footnote 1.

to another supplier, the larger should be the negative discount rate factor.

2. *Reputation of contract holder.* Contract holders that have earned reputations for their willingness to mount vigorous and sustained litigation against business partners that violate their contracts often benefit from the shield of deterrence to future violations of their contracts.

3. *Politicization of potential litigation.* While larger companies may feel freer to break their contracts with small suppliers, large companies are quite sensitive to the media attention that may accompany breach-of-contract litigation. Larger companies have more to lose from negative media attention, as they have more customers, are more exposed to regulators, and have shareholders that would hold management accountable for attracting such media attention.

4. *Game theory remedies.* If Seating Sisters had side agreements that—in the event that Bicycle Brothers violated its contract—enabled it to invoke remedies based on Game Theory, there would be less risk of its contract being violated. Such permutations of Game Theory could include the following:

Upon signing the contract, both parties could agree that each quarter that Bicycle Brothers remitted payment as stipulated by the contract, Seating Sisters would donate a small percentage of the proceeds to a charity of importance to Bicycle Brothers. A violation of the contract would result in a cessation of such charitable donations. Seating Sisters would have the right to disclose the reason for the cessation of donations.

A violation of the agreement by Bicycle Brothers would allow Seating Sisters to publish a letter of resignation by Bicycle Brothers from its trade associations. Such a letter would have been previously signed by Bicycle Brothers

and would declare that Bicycle Brothers did not uphold business practices acceptable to the trade associations.

Using the formula given on page 00, the total discount rate in our case study was computed to be 35 percent. **(See Figure 3 on page 17).**

ANCILLARY ECONOMIC BENEFITS

Contracts represent value to businesses beyond the expected discounted earnings they are projected to deliver. Securing customers and vendors, as evidenced by executing contracts, enhances the predictability of sales and delivery of supplies. This predictability reduces volatility in earnings, which is rewarded by the financial community. Contracts lend credibility to the signatories and buttress the reputations of the firms involved. This reputation enhancement can carry over to many facets of the signatories' businesses. The following five are among the ancillary economic benefits that result from winning contracts:

1. *Access to capital.* Companies that can demonstrate to investors and creditors that they have binding contracts have an advantage in securing capital.

2. *Elevated market capitalization.* The announcement of an important contract win can cause shares of a publicly traded company to rise. One method for determining the extent of any market capitalization enhancement resulting from a contract win is to take the average share price 20 days before the contract win, and subtract from that amount the average price of the stock five days after the announcement of the contract. We multiply this difference by the number of shares outstanding.

3. *New accounts.* Winning contracts from reputable industry players validates the contract winner and makes it easier to win future accounts. This is especially true when the initial clients

agree to serve as reference accounts for their vendors. Winning important contracts can also give existing customers the confidence to purchase other products from the contract winner, leading to cross-sell opportunities.

4. *Retention of key personnel.* A company that is making progress in executing its business plan is attractive not only to investors and customers, but also to its own employees. Companies that win accounts give their employees further reasons to remain with the company. Thus contract wins can reduce the turnover of valued employees.

5. *Enhance operating efficiency.* Securing business from customers enables vendors to operate their factories and other assets at higher utilization levels. That in turn reduces the costs of unit production, which enables the firm to be more price-competitive.

Using these criteria, the value of ancillary economic benefits in the Seat Sisters example is $2,472,610. **(See Figure 4 page 18.)**

RECOVERIES

When a contract is broken, all is not always lost. Recovery in the form of collecting business interruption insurance proceeds, settlements (minus lawyers fees), and the proceeds from affected liquidated inventories should be added back to the value of the contract. We derive these values by multiplying pre-tax earnings by: product of risk of contract termination x percent of contract expected to be lost if contract is terminated x percentage of contract recovery. Total recoveries in our example are projected to be $201,850. **(See Figure 5 on page 19.)**

TRANSACTION FEES

We need to reduce the value of the contract by the amount spent on outside professionals (usually lawyers and consultants) for their services in connection with consummating the transaction. In our case study, Seating Sisters incurred

FIGURE 3: CALCULATION OF DISCOUNT RATE

DISCOUNT RATE COMPUTATION

	Discount Rate	Maximum Points
Risk Free Rate		
Duration of contact		
Rate on US government debt		
for similar period of time		
	5%	15%
Basic economic factors		
Risk of a recession over the term of th	2%	
Expected number of contract years of	2%	
Expected severity of recession	2%	
Elasticity of demand for products	1%	
	7%	20%
Industry Economics		
Competitive Factors		
Barriers to entry	1%	
Barriers to exit	0%	
Switching costs	0%	
Stakes of rivals	2%	
Other	1%	
	4%	11%
Adverse Legislation		
Likelihood	1%	
Estimated severity	1%	
	2%	7%
Adverse Regulation		
Likelihood	1%	
Estimated severity	1%	
	2%	7%
	8%	25%
Internal Factors		
Shareholder risk	5%	
Influencers Risk	5%	
History of breaking contracts	5%	
Better alternatives	5%	
Ability to perform	3%	
Litigation policy (contract holder)	2%	
Contract dependence	5%	
Size disparity	3%	
New management at counterparty	4%	
Acquisition of counterparty	5%	
Counterparty's reputation	4%	
	46%	
Risk of supplier concentration	4%	
Proprietary Technology	4%	
Value of suppliers products	4%	
Cross Ownership	4%	
Component percentage	4%	
Stability of relationships	4%	
Position in value chain	4%	
Inability to accumulate inventory	4%	
	32%	
	14%	35%

	Discount Rate	Maximum Points
Legal Issues		
Contract construction	1%	
Contract drafting	1%	
Governing jurisdictions	2%	
Termination features	1%	
Potential damages	1%	
Personal guarantees	1%	
Insurability	0%	
	7%	
	7%	20%
Remedies		
Contract Transferability	-2%	
Contract holder reputation	-1%	
Politicization of litigation	0%	
Game Theory remedies	-3%	
	-6%	-15%
TOTAL DISCOUNT RATE	35%	100%

Notes: We weight the economic factors much more heavily than the legal factors on the theory that economics trumps legality. When a contract becomes uneconomic, legal justification for termination will be discovered.

In our model, each category of risk was deemed to account for a maximum total risk contribution to contract invalidity. For example, Industry Economics carries a maximum of 25% risk. Within each category, we prepared a drop-down menu for each sub-category that only allows the user to select a risk percent that can cumulatively amount to the total risk exposure that its category is deemed to represent.

FIGURE 4: VALUE OF ANCILLARY ECONOMIC BENEFITS

VALUE OF ANCILLARY ECONOMIC BENEFITS

	2010E	2011E	2012E	2013E	2014E	2015E
NEW ACCOUNT WINS DUE TO CONTRACT						
Bidding for new business	$20,000,000	$25,000,000	$32,000,000	$29,000,000	$26,000,000	$3,000,000
Average/historical win rate	28%	28%	28%	28%	28%	28%
Value of expected contract wins	5,600,000	7,000,000	8,960,000	8,120,000	7,280,000	840,000
Enhanced win rate	7%	7%	7%	7%	7%	7%
Enhanced expected contract wins	392,000	490,000	627,200	568,400	509,600	58,800

NPV of expected enhanced contract wins   **$1,108,641**

VALUE OF ENHANCED RETENTION OF KEY EMPLOYES						
Employee count	275	290	320	325	330	345
Average annual turnover/valued employees(%)	12%	12%	12%	10%	10%	15%
Average annual turnover/valued employees	33.0	34.8	38.4	32.5	33.0	51.8
Salespeople retained because of technology(%)	10%	10%	10%	10%	10%	10%
Salespeople retained because of technology	3.3	3.5	3.8	3.3	3.3	5.2
Cost of Replacing Salesperson						
Recruiters Commissions	30,000	30,600	31,212	31,836	32,473	33,122
Upfront Bonus	15,000	15,300	15,606	15,918	16,236	16,561
Training Costs	20,000	20,400	20,808	21,224	21,649	22,082
Interrupted in Customer Service	20,000	20,400	20,808	21,224	21,649	22,082
Total costs of replacing salesperson	85,000	86,700	88,434	90,203	92,007	93,847

Annual Value of Retention of Key Employees 280,500   301,716   339,587   293,159   303,622   485,685

NPV of Enhanced Retention of Key Employees   **$747,552**

VALUE OF ENHANCED ACCESS TO CAPITAL						
Total debt load	4,000,000	4,250,000	4,500,000	5,000,000	5,250,000	5,500,000
Reduction in interest costs	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Total interest cost savings	8,000	8,500	9,000	10,000	10,500	11,000

NPV of Reduced Interest Costs Due to Enhanced Access to Credit   **$21,417**

Enhanced Market Capitalization

Average Price of Stock	$27.35
20 trading days before licensing	
Average Price of Stock	$28.05
5 trading days after licensing	
Price Difference due to License	$0.70
Number of Shares Outstanding	85,000,000

Market Capitalization Enhancement

Discount factor

Net Market Cap Enhancement   **$21,417**

TOTAL VALUE OF ANCILLARY ECONOMIC BENEFITS   **$2,472,610**

FIGURE 5: RECOVER IN THE EVENT OF CONTRACT VIOLATION

RECOVERY IN THE EVENT OF CONTRACT VIOLATION

		2010E	2011E	2012E	2013E	2014E	2015E
PRE-TAX EARNING		3,800,000	3,937,014	4,504,771	5,115,983	2,873,453	2,902,991
Risk of Contract Termination							
Discount Rate	35%						
Risk Free Rate	5%						
Risk of Contract Termination	30%	30%	30%	30%	30%	30%	30%
Percent of Contract Expected to be lost		10%	14%	18%	22%	26%	30%
Value of Lost Contract		114,000	165,355	243,258	337,655	224,129	261,269
Percent of Contract Recovery							
Liquidation of Inventory		5%	5%	5%	5%	5%	5%
Insurance Proceeds		5%	5%	5%	5%	5%	5%
Settlements		5%	5%	5%	5%	5%	5%
Percent of Contract Recovery		15%	15%	15%	15%	15%	15%
Annual Recovery if Contracts are Violated		17,100	24,803	36,489	50,648	33,619	39,190
Total Recovery Potential							$201,850

transactions costs of $235,000 in the first year of the contract, and nominal $3,000 costs in subsequent years. The net present value of these transaction fees in our case study is $241,660. (See Figure 6.)

TOTAL CONTRACT VALUE

In conclusion, we calculate the total contract value by applying the formula shown on page 00 and restated here:

FIGURE 6: TRANSACTION FEES

TRANSACTION FEES

	2010E	2011E	2012E	2013E	2014E	2015E
Transactions Fees	$235,000	$3,000	$3,000	$3,000	$3,000	$3,000
Discount Rate						35%
NPV of Transactions Cost						$241,660

CONTRACT VALUE =

deposits + [(anticipated value of contractual income – deposits) x discount rate] + value of ancillary economic benefits + (recoveries x discount rate) – transactions costs

FIGURE 7: TOTAL CONTRACT VALUE

TOTAL CONTRACT VALUE	
Deposits	$125,000
Anticipated Value of Contractual Income	$5,838,964
Value of Ancillary Economic Benefits	$2,472,610
Recoveries	$201,850
Transactions Cost	$241,660
Total Contract Value	$8,396,763

The total value of Seating Sisters' contract with Bicycle Brothers in our case study is $8,396,763. (See Figure 7.)

While business valuation analysts must always apply their judgment to the unique circumstances that they are confronted with when valuing contracts, I hope that the methodology discussed above provides some guidance as well as standards around which contract valuation can be more consistently applied. ■VE

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