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Discount Terms: A Framework for Negotiation By Ron Dimattia, CPA, CMA

Executive Abstract

This article provides a discussion and analysis of the economic impact of offering discount terms to customers. In addition to challenging some commonly held thoughts about discount terms, the article offers a framework for negotiating with individual customers and points out certain practical considerations in applying the concepts presented. Most importantly, the article attempts to establish a direct link between discount policy and Economic Value Added (EVA). A table of implied discount terms given certain factors is presented to facilitate the readers' analysis of the concepts presented.

The reader is encouraged to study *The Quest for Value*, by G. Bennett Stewart, III, which was important in the preparation of this paper. Stewart lays the groundwork for a new financial measurement system known as Economic Value Added, or EVA, which seems to be gaining wide acceptance in the financial community. EVA is basically a residual income approach to performance measurement. In simple terms, it is calculated by deducting a capital charge from after-tax operating profits. The capital charge is determined by applying a cost of capital, which is similar to an interest rate except it is more comprehensive, to capital employed.

Residual income as a measurement has been recommended as the preferred way to measure internal performance of divisions and projects for a number of years.² However, Stewart dramatically advanced this concept by developing a system that explicitly links this internal measure to the most important external measurement of a companys performance—its stock price.³ Thus, as long as individual decisions at the project, department, or division level are being made consistent with the EVA framework, those decisions have a direct and positive impact on the company's stock price.⁴

Challenging the Conventional View of Discount Terms

One aspect of a manager's decision-making role is setting and nego-

tiating discounts. Terms for trade credit offered to customers frequently include a discount and discount date to encourage earlier payment. There are a number of factors that go into making the decision to offer a discount for early payment, including customer risk, market pricing, market perception, and the implicit cost of offering the discount. If viewed in purely financial terms, offering a discount for earlier payment carries with it an assumption of accruing interest.' The formula for assessing the implied rate of interest is:

$$\frac{d}{1-d} \times \frac{365}{t2-t1}$$

where d is the discount percentage, t1 is the discount date and t2 is the net due date.⁶ Utilizing this formula given the terms 2/10, net 30 results in a 37.2 percent implied interest rate.

Comparing this implicit rate to a company's cost of capital leads one to the conclusion that such terms are very expensive. Certainly, in terms of interest rates on standard bank borrowings, it is. However, a company's cost of capital goes beyond bank borrowings. In the EVA framework, cost of capital is a weighted average of a company's after-tax cost of debt and its cost of equity. Because many companies offer 2/10, net 30 terms, it would be dangerous to assume that these companies are not making rational decisions. Perhaps EVA theory provides a justification.

Consider that, for many larger companies, cost of capital is in the range of 7-17 percent.8 Although it is generally accepted that smaller and privately held companies have a higher cost of capital, it seems that such a difference cannot account for a 37.2 percent cost of capital.9 The following two points may clear this up.

First, one must understand that the cost of capital in the EVA framework is an after-tax measure. The standard formula provided earlier is a pre-tax measure. To compare the two without adjusting for tax effects distorts any conclusions. Therefore, the standard formula should allow for tax effects resulting in an implied cost of capital of 23.1 percent, assuming a 38 percent marginal tax rate (federal, state, and local).¹⁰

Second, if 2/10, net 30 terms truly imply a 23.1 percent cost of capital, two things must happen: 1) the customer pays on the stated due date, or 2) the customer is charged interest at the cost of capital beyond the due date. If either of these conditions occur in the real world, they are the exception, not the rule. It is definitely a policy (at least unwritten) for many companies to lengthen the payment cycle as much as possible to take advantage of the interest-free nature of trade credit. The Credit Research Foundations National Summary of Domestic Trade Receivables for the first quarter of 1995 indicates median days sales outstanding of approximately 40 days.11 If this median is used instead of the stated due date, the implied cost of capital drops to 15.4 percent. At 45 days it drops to 13.2 percent. Suddenly, 2/10 net 30 terms do not appear to be so expensive. The EVA framework provides an excellent vehicle to assess the cost/benefit of such a decision. But there is more yet to explore when considering discount terms within a framework for negotiations. Why the 10-day discount period?

The preceding discussion sets forth a framework to measure the after-tax cost of offering a discount relative to the benefit from receiving payment a certain number of days earlier. The formula could be used for any combination of discount and discount date, yet the most common discount date used is 10 days. It appears that the 10-day discount date has developed over time as a convention.¹²

However, setting a discount date should be a managerial decision designed to achieve certain objectives. These objectives could range from overall working capital targets to minimizing exposure on a troubled account. Thus, the discount negotiations could include a particular number of days prior to the standard due date, cash on delivery (COD), or cash in advance (CIA) terms. A 10-day discount date is not a necessity.

The increasing use of electronic data interchange (EDI) may ultimately lead to the 10 day discount date being discarded. With the ability to transmit and verify data very quickly, EDI gives a company greater opportunity and comfort to make payment early. EDI also provides the benefit/cost of reducing float. These changes should cause both parties to challenge their standard course of dealings, including discount terms.¹³

Importance of Accounts Receivable in Working Capital Management

Most companies must fund a certain level of working capital—current assets less current liabilities. In the EVA framework, to the extent that working capital can be reduced at an appropriate cost, economic value is created.¹⁴ The problem is to identify which current assets can be reduced, and/or which current liabilities can be increased, and how to produce the reduction/increase, in order to achieve a cost effective reduction in working capital.

Inventory, for example, may be reduced by developing and installing a sophisticated computer program. Perhaps additional trade credit is available from vendors. Accounts receivable could be reduced by instituting a persistent collections strategy. If such a strategy would strain customer relationships, perhaps discounts could be negotiated with customers.

This is not based on any hard research, but in my conversations with many small-business owners; they are in a situation where inventories are essentially fixed. There are a number of reasons that come to mind, one immediately being the recent move to "just-in-time" (JIT) inventory practices by their larger customers. It could also be that standards of customer service in an industry require

Table 1

Discounts

**assuming a 38 percent tax rate

Cost of Capital

10.0442% 0.0486% 0.0530% 0.0574% 0.0618% 0.0662% 0.0707% 0.0751% 0.0795% 0.0588% 0.0588% 0.0588% 0.1148% 0.1236% 0.1324% 0.1412% 0.1500% 0.1588% 0.1324% 0.1412% 0.1500% 0.1588% 0.1324% 0.1426% 0.1246% 0.1246% 0.2117% 0.2299% 0.2468% 0.2668% 0.2644% 0.2820% 0.2996% 0.2381% 0.06628% 0.2044% 0.2425% 0.2425% 0.2425% 0.3122% 0.3465% 0.3033% 0.3523% 0.3742% 0.3961% 0.06626% 0.2644% 0.2804% 0.3286% 0.3034% 0.3303% 0.3523% 0.3742% 0.3961% 0.06626% 0.2644% 0.2908% 0.3172% 0.3455% 0.3688% 0.3688% 0.3523% 0.3742% 0.3961% 0.06626% 0.2644% 0.2908% 0.3172% 0.40135% 0.3689% 0.36618% 0.4224% 0.4475% 0.4750% 0.4618% 0.4224% 0.4475% 0.4750% 0.4618% 0.4618% 0.4224% 0.4475% 0.4750% 0.4818% 0.3523% 0.3674% 0.3238% 0.4818% 0.3523% 0.3674% 0.4750% 0.4575% 0.4923% 0.5623% 0.5623% 0.5795% 0.5623% 0.5623% 0.5795% 0.5623% 0.5795% 0.6618% 0.4818% 0.56585% 0.7021% 0.7456% 0.3799% 0.6846% 0.7143% 0.6759% 0.7238% 0.7717% 0.8166% 0.8674% 0.2018% 0.4813% 0.6525% 0.7599% 0.6239% 0.7238% 0.7717% 0.8166% 0.8674% 0.7413% 0.7978% 0.8543% 0.9918% 0.9608% 0.9671% 1.0234% 1.0018% 0.6618% 0.70218 0.7177% 0.8413% 0.9585% 0.9183% 0.9918% 0.9671% 1.0234% 1.0018% 0.6719% 0.6846% 0.71978% 0.8543% 0.9918% 0.9608% 0.9671% 1.0234% 1.0018% 0.6865% 0.71078% 0.8543% 0.9108% 0.9671% 0.0408% 1.0133% 1.1790% 1.2567% 1.3569% 0.8646% 0.7119% 0.7179% 0.8143% 0.9183% 0.9081% 0.4049% 1.1136% 1.1790% 1.0058% 0.9185% 0.9081% 0.4049% 1.1136% 1.1790% 1.0058% 0.9185% 0.9081% 0.9465% 0.8646% 0.7119% 0.9625% 0.9185% 0.9625% 0.9185% 0.9626% 0.9808% 0.9808% 0.9808% 0.9808% 0.9808% 0.9808% 0.9808% 0.9808% 0.9808% 0.9808% 0.9808% 0.9808% 0.9808% 0.9808% 0.9808% 0.9808% 0.9808% 0.98	_										
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9 0.3961% 0.4356% 0.4750% 0.5144% 0.5537% 0.5930% 0.6323% 0.6716% 0.7108% 0 10 0.4399% 0.4837% 0.5275% 0.5712% 0.6148% 0.6585% 0.7021% 0.7456% 0.7891% 0 11 0.4837% 0.5318% 0.5799% 0.6239% 0.6279% 0.6759% 0.7338% 0.7717% 0.8196% 0.8646% 0.7369% 0.7338% 0.7717% 0.8196% 0.8455% 0.7318% 0.5712% 0.6279% 0.6323% 0.6846% 0.7369% 0.7891% 0.8413% 0.8934% 0.9455% 0 13 0.5712% 0.6279% 0.6323% 0.6846% 0.7369% 0.8581% 0.9108% 0.96071% 1.0234% 1 14 0.6148% 0.6759% 0.7369% 0.7978% 0.8587% 0.9194% 0.9801% 1.0408% 1.1013% 1.1790% 1 15 0.6585% 0.7238% 0.7891% 0.8543% 0.9194% 0.9845% 1.0494% 1.1143% 1.1790% 1 16 0.7021% 0.7717% 0.8413% 0.9108% 0.9801% 1.0494% 1.1148% 1.1790% 1 17 0.7456% 0.8196% 0.8934% 0.9617% 1.0408% 1.1143% 1.1877% 1.2610% 1.3314% 1 18 0.7891% 0.8674% 0.9455% 1.0234% 1.0139% 1.1790% 1.2567% 1.33141% 1 19 0.8326% 0.9151% 0.9975% 1.0797% 1.1618% 1.2437% 1.3255% 1.4072% 1.4888% 1 20 0.8760% 0.9628% 1.0494% 1.11599% 1.2222% 1.3083% 1.3943% 1.4802% 1.5551% 1.4072% 1.4888% 1 21 0.9194% 1.0105% 1.1013% 1.1920% 1.2825% 1.3728% 1.4630% 1.5551% 1.4629% 1 22 0.9628% 1.0581% 1.1531% 1.2480% 1.3420% 1.4533% 1.3943% 1.45024 1.5518% 1.7198% 1 23 1.0061% 1.1056% 1.2049% 1.3040% 1.4029% 1.5016% 1.6685% 1.798% 1.4737% 1.2516% 1.6228% 1.798% 1 24 1.0494% 1.1531% 1.2567% 1.3600% 1.4629% 1.5659% 1.6685% 1.798% 1.4739% 1.2222% 1.3083% 1.943% 1.84024 1.7966% 1 25 1.0927% 1.2006% 1.3083% 1.4158% 1.5231% 1.6301% 1.7509% 1.8434% 1.7966% 1 26 1.1359% 1.2480% 1.3600% 1.4716% 1.8380% 1.6529% 1.8732% 1.8980% 2.1024% 2 29 1.26533% 1.3900% 1.5145% 1.5559% 1.6429% 1.7858% 2.2800% 2.19121% 2.2547% 2 20 1.6559% 1.798% 1.6685% 1.7027% 1.82214 1.9412% 2.00010% 1.8984% 1.7966% 1 21 1.1799% 1.2246% 1.3400% 1.5319% 1.5319% 2.2800% 2.19121% 2.2547% 2 21 1.7790% 1.2066% 1.3083% 1.4158% 1.5231% 1.6300% 2.2820% 2.2800% 2.19121% 2.2647% 2 21 1.7790% 1.2066% 1.3083% 1.4629% 1.82114 1.9412% 2.00010% 1.89880% 2.1024% 2 21 1.7790% 1.2066% 1.3083% 1.6000% 1.4716% 1.83219% 2.2785% 2.4821% 2.2619% 2.28405% 2.1913% 2.2785% 2.2800% 2.19121% 2.08010% 2.1916% 2.280	7	0.3084%	0.3391%	0.3698%	0.4005%	0.4312%	0.4618%	0.4925%	0.5231%	0.5537%	0
10	8	0.3523%	0.3874%	0.4224%	0.4575%	0.4925%	0.5275%	0.5624%	0.5974%	0.6323%	0
11	9	0.3961%	0.4356%	0.4750%	0.5144%	0.5537%	0.5930%	0.6323%	0.6716%	0.7108%	0
12	10	0.4399%	0.4837%	0.5275%	0.5712%	0.6148%	0.6585%	0.7021%	0.7456%	0.7891%	0
13	11	0.4837%	0.5318%	0.5799%	0.6279%	0.6759%	0.7238%	0.7717%	0.8196%	0.8674%	0
14	12	0.5275%	0.5799%	0.6323%	0.6846%	0.7369%	0.7891%	0.8413%	0.8934%	0.9455%	0
15	13	0.5712%	0.6279%	0.6846%	0.7413%	0.7978%	0.8543%	0.9108%	0.9671%	1.0234%	1
15	14	0.6148%	0.6759%	0.7369%	0.7978%	0.8587%	0.9194%	0.9801%	1.0408%	1.1013%	1
16	15	0.6585%	0.7238%	0.7891%				1.0494%			
17	16	0.7021%	0.7717%								_
18	17	0.7456%	0.8196%	0.8934%	0.9671%	1.0408%	1.1143%	1.1877%		1.3341%	_
20 0.8760% 0.9628% 1.0494% 1.1359% 1.2222% 1.3083% 1.3943% 1.4802% 1.5659% 1	18	0.7891%	0.8674%	0.9455%	1.0234%	1.1013%	1.1790%	1.2567%	1.3341%	1.4115%	1
21 0.9194% 1.0105% 1.1013% 1.1920% 1.2825% 1.3728% 1.4630% 1.5531% 1.6429% 1 22 0.9628% 1.0581% 1.1531% 1.2480% 1.3428% 1.4373% 1.5316% 1.6258% 1.7198% 1 24 1.0494% 1.1531% 1.2567% 1.3600% 1.6569% 1.6685% 1.7710% 1.8323% 25 1.0927% 1.2006% 1.3600% 1.4630% 1.6599% 1.6685% 1.7710% 1.8323% 1.4997% 2 26 1.1359% 1.2480% 1.3600% 1.4716% 1.5830% 1.6924% 1.8051% 1.9157% 2.0261% 2 27 1.1790% 1.2248% 1.44300% 1.5830% 1.6429% 1.7582% 1.8732% 1.9800% 2.0261% 2 28 1.2222% 1.3438% 1.4630% 1.5830% 1.7027% 1.8221% 1.9412% 2.0601% 2.1786% 2 29 1.2653% 1.3900% 1.5145%	19	0.8326%	0.9151%	0.9975%	1.0797%	1.1618%	1.2437%	1.3255%	1.4072%	1.4888%	1
22 0.9628% 1.0581% 1.1531% 1.2480% 1.3428% 1.4373% 1.5316% 1.6258% 1.7198% 1 23 1.0061% 1.1056% 1.2049% 1.3040% 1.4029% 1.5016% 1.6001% 1.6984% 1.7966% 1 24 1.0494% 1.1531% 1.2567% 1.3600% 1.4680% 1.5659% 1.6685% 1.7179% 1.7369% 1.8343% 1.9497% 2 25 1.0927% 1.2006% 1.3083% 1.41183% 1.52319% 1.6301% 1.7369% 1.8434% 1.9497% 2 26 1.1359% 1.2480% 1.3600% 1.4716% 1.5830% 1.6942% 1.8051% 1.9157% 2.0261% 2 27 1.1790% 1.2954% 1.4115% 1.5273% 1.6429% 1.7522% 1.8732% 1.9880% 2.1024% 2 29 1.2633% 1.3900% 1.5145% 1.6386% 1.7625% 1.8860% 2.0070% 2.1214% 2.2040% 2.3306% 2 </th <th>20</th> <th>0.8760%</th> <th>0.9628%</th> <th>1.0494%</th> <th>1.1359%</th> <th>1.2222%</th> <th>1.3083%</th> <th>1.3943%</th> <th>1.4802%</th> <th>1.5659%</th> <th>1</th>	20	0.8760%	0.9628%	1.0494%	1.1359%	1.2222%	1.3083%	1.3943%	1.4802%	1.5659%	1
1.0061% 1.1056% 1.2049% 1.3040% 1.4029% 1.5016% 1.6001% 1.6984% 1.7966% 1	21	0.9194%	1.0105%	1.1013%	1.1920%	1.2825%	1.3728%	1.4630%	1.5531%	1.6429%	1
23 1.0061% 1.1056% 1.2049% 1.3040% 1.4029% 1.5016% 1.6001% 1.6984% 1.7966% 1 24 1.0404% 1.1531% 1.2567% 1.3600% 1.4630% 1.5655% 1.6685% 1.7710% 1.8732% 1 26 1.1359% 1.2480% 1.3600% 1.4716% 1.5339% 1.6018% 1.9157% 2.0261% 2 27 1.1790% 1.2954% 1.4115% 1.5273% 1.6429% 1.7522% 1.8732% 1.9880% 2.1024% 2 28 1.2222% 1.3428% 1.4630% 1.5830% 1.7027% 1.8221% 1.9412% 2.0601% 2.2718% 2.0124% 2 30 1.3083% 1.4373% 1.5659% 1.6942% 1.8221% 1.9497% 2.0770% 2.2148% 2.2758% 2.4064% 2 31 1.3514% 1.4845% 1.6173% 1.7497% 1.8817% 2.0134% 2.1448% 2.2758% 2.4064% 2 31 <	22	0.9628%	1.0581%	1.1531%	1.2480%	1.3428%	1.4373%	1.5316%	1.6258%	1.7198%	1
24 1.0494% 1.1531% 1.2567% 1.3600% 1.4630% 1.5659% 1.6685% 1.7710% 1.8732% 1 25 1.0927% 1.2006% 1.3083% 1.4188% 1.5231% 1.6301% 1.7369% 1.8434% 1.9497% 2 26 1.1359% 1.2480% 1.3600% 1.4716% 1.5830% 1.6942% 1.8051% 1.9177% 2.0261% 2 27 1.1790% 1.2954% 1.4115% 1.5273% 1.6429% 1.7582% 1.8732% 1.9880% 2.1024% 2 28 1.2222% 1.3428% 1.4630% 1.5830% 1.7027% 1.8221% 1.9412% 2.0601% 2.1786% 2 30 1.3083% 1.34373% 1.5659% 1.6942% 1.8221% 1.9497% 2.0770% 2.2040% 2.3326% 2.3475% 2.4930% 2.4940% 2.3475% 2.4900% 2.4148% 2.2758% 2.4064% 2 2.0770% 2.2144% 2.3475% 2.4821% 2.3577% 2 <td< th=""><th>23</th><th>1.0061%</th><th>1.1056%</th><th>1.2049%</th><th>1.3040%</th><th>1.4029%</th><th>1.5016%</th><th>1.6001%</th><th>1.6984%</th><th>1.7966%</th><th>_</th></td<>	23	1.0061%	1.1056%	1.2049%	1.3040%	1.4029%	1.5016%	1.6001%	1.6984%	1.7966%	_
26 1.1359% 1.2480% 1.3600% 1.4716% 1.5830% 1.6942% 1.8051% 1.9157% 2.0261% 2 27 1.1790% 1.2954% 1.4115% 1.5273% 1.6429% 1.7582% 1.8732% 1.9880% 2.1024% 2 28 1.2222% 1.3428% 1.4630% 1.5830% 1.7027% 1.8221% 1.9412% 2.0601% 2.1786% 2 29 1.2633% 1.3900% 1.5145% 1.6386% 1.7627% 1.8860% 2.0092% 2.1321% 2.2547% 2 30 1.3083% 1.4373% 1.5659% 1.6942% 1.8221% 1.9497% 2.0770% 2.2040% 2.3306% 2 31 1.3514% 1.4845% 1.6173% 1.7497% 1.8817% 2.0134% 2.1448% 2.2758% 2.4064% 2 32 1.3943% 1.5316% 1.6685% 1.8051% 1.9412% 2.0770% 2.2124% 2.3475% 2.4064% 2 33 1.4373% <	24	1.0494%	1.1531%	1.2567%	1.3600%	1.4630%	1.5659%	1.6685%		1.8732%	1
26 1.1359% 1.2480% 1.3600% 1.4716% 1.5830% 1.6942% 1.8051% 1.9157% 2.0261% 2 27 1.1790% 1.2954% 1.4115% 1.5273% 1.6429% 1.7582% 1.8732% 1.9880% 2.1024% 2 28 1.2222% 1.3428% 1.4630% 1.5830% 1.7027% 1.8221% 1.9412% 2.0601% 2.1786% 2 30 1.3633% 1.3900% 1.5145% 1.6386% 1.7627% 1.8860% 2.0092% 2.1321% 2.2547% 2 31 1.3514% 1.4845% 1.6173% 1.7497% 1.8817% 2.0134% 2.1448% 2.2758% 2.4064% 2 32 1.3943% 1.5316% 1.6685% 1.8014% 1.9412% 2.0770% 2.2124% 2.3475% 2.4821% 2 33 1.4373% 1.5787% 1.7198% 1.8604% 2.0007% 2.1405% 2.2409% 2.4579% 2.4821% 2.9785% 2.4064% 2	25	1.0927%	1.2006%	1.3083%	1.4158%	1.5231%	1.6301%	1.7369%	1.8434%	1.9497%	2
27 1.1790% 1.2954% 1.4115% 1.5273% 1.6429% 1.7582% 1.8732% 1.9880% 2.1024% 2 28 1.2222% 1.3428% 1.4630% 1.5830% 1.7027% 1.8221% 1.9412% 2.0601% 2.1786% 2 30 1.3083% 1.4373% 1.5659% 1.6942% 1.8221% 1.9407% 2.0770% 2.2040% 2.3306% 2 31 1.3514% 1.4845% 1.6173% 1.7497% 1.8817% 2.0134% 2.1448% 2.2758% 2.4064% 2 32 1.3943% 1.5316% 1.6685% 1.8051% 1.9412% 2.0770% 2.2142% 2.3475% 2.41664% 2 33 1.4373% 1.5787% 1.7198% 1.8604% 2.0007% 2.1405% 2.24190% 2.4575% 2.4614% 2.2775% 2.4064% 2 2.2800% 2.4190% 2.5577% 2 2.0613 2.0601% 2.2480% 2.4190% 2.5577% 2 2.0613% 2.2600% 2.441	26	1.1359%	1.2480%	1.3600%	1.4716%	1.5830%	1.6942%	1.8051%	1.9157%	2.0261%	
28 1.2222% 1.3428% 1.4630% 1.5830% 1.7027% 1.8221% 1.9412% 2.0601% 2.1786% 2 29 1.2653% 1.3900% 1.5145% 1.6386% 1.7625% 1.8860% 2.0092% 2.1321% 2.2547% 2 30 1.3083% 1.4373% 1.5659% 1.6942% 1.8221% 1.9497% 2.0770% 2.2040% 2.3306% 2 31 1.3514% 1.4845% 1.6173% 1.7497% 1.8817% 2.0134% 2.1448% 2.2758% 2.4064% 2 32 1.3943% 1.5316% 1.6685% 1.8051% 1.9412% 2.0700% 2.2144% 2.3475% 2.4821% 2 33 1.4373% 1.5787% 1.7198% 1.8604% 2.0007% 2.1405% 2.2490% 2.4190% 2.5577% 2 34 1.4802% 1.6258% 1.7710% 1.9157% 2.0601% 2.2404% 2.3475% 2.4990% 2.4519% 2.26332% 2.7837% 2	27	1.1790%	1.2954%	1.4115%	1.5273%	1.6429%	1.7582%	1.8732%	1.9880%	2.1024%	
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ample inventories. Another reason could be the cost and complexity of developing a system to reduce inventories. Additionally, many smaller businesses are constrained in obtaining further trade credit from larger suppliers. Thus, any reduction in working capital is likely to come predominantly from reductions in accounts receivable.

A Framework for Negotiation

In general, one should look at a portfolio of accounts receivable as a series of accounts with varying risk and maturity. Risk is determined primarily by the customer's creditworthiness. Maturity is determined by the customer's payment practices that have developed over time. Granted, a customer relationship changes over time and historical trends do not determine future behavior. But, as with most business decisions, imperfect prediction tools must be used.¹⁵

Ideally, discounts should be set individually for customers and should be a separate arrangement with a specific term. The attempt should be to link specifically the discount with earlier payment, and to avoid getting locked into it for too long to accommodate changes in market rates and the company's situation over time. Furthermore, the discount should be based on 1) the selling company's cost of cap-

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ital and marginal tax rate, 2) the buying company's cost of capital and marginal tax rate and 3) the number of days to remove from the account's "maturity" for whatever the reason (e.g. working capital management, financially distressed customer).

Certainly, there are legal implications to be considered, and the reader is encouraged to discuss any concerns with legal counsel. A number of other matters impact this decision including the uniqueness of the product, the company's and customer's competitive position, industry dynamics, and the sales staff's relationship with the customer-to name a few. Sometimes an improved relationship with customers can have a bigger impact on reducing accounts receivable than a discount offered. The method of payment should also be considered when setting the discount date.16 With electronic funds transfers the discount date and payment date are likely to coincide. If the mail is used, payment could be delayed by more than a few days. Managers should anticipate the customers actions and negotiate a discount for the expected payment date, not the stated discount date.

The framework should be used for negotiating with customers to establish a continuing relationship on new terms. The discount does not apply to amounts already outstanding as implicit capital charges have occurred. The negotiations could cover paying certain invoices sooner than planned, but the calculations would differ from what is presented here.

Table 1 has been prepared to highlight this negotiation process. For a given cost of capital, and number of days to remove from the "maturity" of the account, a corresponding discount has been calculated.¹⁷ Please note that the calculation is specific to each company, and that the table has been prepared for discussion purposes only. For the seller in negotiations, as long as the discount accepted by the customer is less than the discount in the table, economic value has been created as a result of the negotiations.

Example 1-Standard Discount Negotiation

As an example, assume that a seller's ("S") cost of capital is 15 percent. S has a customer ("C") that has stretched its account beyond what the manager is willing to accept by 50 days. Yet the company wishes to continue doing business with C for strategic reasons. C has stated that it has no intention of paying any earlier than it currently does for cash flow purposes. The company creates economic value if the customer is willing to pay 50 days earlier in return for a discount of 3.2 percent or less.¹⁸

Example 2: Distressed Customer

Let's assume further that C is financially distressed and that a bank-ruptcy filing is a real possibility. S understands that the risk associated with this customer is greater than that reflected in its cost of capital. Additionally, a 3.2 percent discount may not be enough to entice C to pay sooner. Through negotiations, C indicates that it would be willing to consistently pay 50 days earlier, but only for a 4 percent discount. Referring to the table, this would imply a cost of

capital of 19 percent, approximately. Now S's manager has a basis for assessing the subjective risk of Cs account. Does the additional risk associated with C's financial difficulties reasonably equate to increasing the associated capital charge by 4 percent, approximately?

Example 3: Differing Costs of Capital

Referring to the summary of the Stern Stewart Performance 1,000 from *Fortune* magazine, while a number of companies' cost of capital approximates 17 percent, a number of companies' cost of capital is 10 percent or less.²⁰ Let's assume that S is the 17-percent cost of capital company, while C, at 10 percent, is the lower cost of capital company.²¹ C, like any aggressive company, is taking advantage of its trade credit to enhance EVA, and is holding payment on invoices 30 days past S's DSO objectives.

From S's perspective, it creates value if it can entice C to pay 30 days earlier for a discount of 2.2 percent or less. However, C will create value for itself by accepting a smaller discount. In fact, C is indifferent to the decision at a 1.3 percent discount. Through a series of negotiations, it is possible that both companies can come to an accommodation that could create value for each. Assuming annual sales of \$1 million, there is \$9,000 (pre-tax) on the table, and the relative negotiating strength of S and C will determine who gets more of it.²³ If S is the low-cost-of-capital company, it is unlikely that S and C will come to an accommodation, unless there is some specific concern.²⁴

Practical Concerns

Ideas like the ones presented in this article are great for discussion purposes. But implementing an idea always proves to be a greater problem. Unanticipated effects could emerge, making a mess of the best plans. There are a number of concerns any manager should have when considering discussing discounts with its customers, among them:

- The negotiated discount becomes embedded in pricing and gets separated from earlier payment.
- The customer relationship or business practices change, and the negotiated discount actually destroys value.
- Other customers find out about the discount offered to a particular customer, and either: 1) demand the same discount regardless of the EVA impact or 2) change their behavior to encourage a better deal.

These concerns may be so important as to negate even considering offering a discount. However, if discounts are being evaluated, the concepts set forth in this article should be useful. Any manager will tell you that a large part of their job is a negotiating challenge. The above discussion simply highlights a fact well known to any negotiator—know your opponents position and try to gain maximum advantage. The EVA concepts presented in this article help in these negotiations.

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Endnotes

- 1. G. Bennett Stewart, III, *The Quest for Value: The EVATM Management Guide*, with a preface by Joel M. Stern (New York: HarperCollins, Publishers Inc., 1991).
- 2. Robert N. Anthony, John Dearden, and Norton M. Bedford, Management Control Systems, 5th ed., The Robert N. Anthony / Willard J. Graham Series in Accounting (Homewood, Illinois: Richard D. Irwin, Inc., 1984), pp. 342-363.
- 3.Stewart, The Quest for Value: The EVA™ Management Guide, pp. 118-119; pp. 153-154; pp. 174-178.

4.Ibid.

5.Ibid., pp. 92-93.

- Kenneth L. Parkinson and Jarl G. Kallberg, Corporate Liquidity: A Guide to Managing Working Capital, (Homewood, Illinois: Richard D. Irwin, Inc., 1993), pp. 195-197.
- 7. Stewart, The Quest for Value: The EVA™ Management Guide, pp. 271-286.
- 8. Shawn Tully, "America's Best Wealth Creators," Fortune, November 28, 1994, pp. 143-162.
- 9. Ibbotson Associates, "Stocks, Bonds, Bills, and Inflation," 1995 Yearbook, Market Results for 1926 1994, (Chicago: By the Author, 225 North Michigan Avenue, Suite 700, 1995), p. 157.
- 10. The importance of considering tax effects is covered in detail in Stewart's, *The Quest for Value: The EVA*TM Management Guide, (pp. 95-105; pp. 257-286). Consider the EVA formula EVA = NOPAT (cost of capital x capital), where NOPAT is net operating profit after tax. A discount taken will reduce operating profits, but its effect on NOPAT will be muted by the amount of tax savings, or the marginal tax rate multiplied by the discount. The after tax implied rate on the discount can be calculated using either of the following: 1) implied rate x (1-tax rate), or 2) solving for the cost of capital in the EVA formula, EVA = 0 = after tax discount + (cost of capital x reduction in capital).
- 11. Credit Research Foundation of NACM, National Summary of Domestic Trade Receivables: First Quarter 1995, (Columbia, Maryland, 1995).
- 12. Ned C. Hill and Michael J. Swenson, "The Impact of EDI on Credit and Sales," *Business Credit*, January, 1995, pp. 26-27.
- 13. Ibid., pp. 24-28.
- 14. Under the framework set forth by Stewart in *The Quest for Value: The EVA™ Management Guide*, reducing working capital is desirable, and the more working capital is reduced, the more value that is created, assuming that cash generated in any working capital reduction strategy is deployed in projects earning at least the cost of capital or is used to reduce debt and equity in proportional amounts (pp. 92-93; pp. 145-146).
- 15. Finlay Waugh, "Portfolio Risk and Opportunity Analysis: Applying Portfolio Management to a Customer Base," *Business Credit*, May, 1995, pp. 26-28.
- 16. Ned C. Hill and Michael J. Swenson, "The Impact of EDI on Credit and Sales," *Business Credit*, January, 1995, pp. 26-27.
- 17. Consider the discount formula offered by Parkinson and Kallberg in, Corporate Liquidity: A Guide to Managing Working Capital, pp. 195-197:

$$r = \frac{d}{1 - d} \times \frac{365}{12 - 11}$$

and consider the t2-t1 term to be the days to remove from the maturity of an account, instead of as the difference between the due date and discount date, in order to allow for differences in the payment patterns among the customers. The formula should be multiplied by (1-tax rate) to account for tax effects. The table is constructed to solve for a discount given a cost of capital and number of days to remove from the maturity of an account, or,

$$d = (1 - d) \times \begin{bmatrix} \frac{c}{1 - t} + \frac{365}{m} \end{bmatrix}$$

where d is discount, c is the cost of capital, t is the marginal tax rate (assumed to be 38 percent) and m is the number of days to remove from the maturity of the account.

18. There are two ways to look at this calculation, one is to solve for d as in the above note, the other is to solve for d in the formula,

EVA =
$$0 = -(s \times d \times (1-t)) + (w \times c)$$

where s is annual sales, d is discount, t is the tax rate, w is the reduction in capital and c is the cost of capital. Both methods are equivalent, however the EVA calculation more clearly highlights the costs/benefits of the decision. Assume \$100 in sales that occurs ratably over the year. Also assume a 38 percent marginal tax rate. If the account is to be paid 50 days sooner on average, the reduction in capital can be calculated as:

or, 50 days of the discounted sales, or the net to be collected. Thus:

EVA = 0 = -
$$(100 \times .032079 \times (1-.38)) + \frac{100 \times (1-.032079)}{365/50} \times .15$$

- 19. Rounded discounts are presented for ease of reference. As a seller in negotiations, the attempt should be to round-down from the discounts in the table, because any rounding-up in the table for a given cost of capital, tax rate, and days to remove from the maturity of an account would mean a marginal decrease in EVA.
- 20. Shawn Tully, "Americas Best Wealth Creators," Fortune, November 28, 1994, pp. 143-162.
- 21. Although there are a number of factors affecting the relative cost of capital and the payment patterns between actual companies, a real-life example of this relationship could be that of LTV with a 17.3 percent cost of capital, and the Big Three auto makers General Motors = 9.7 percent, Ford = 11.5 percent, and Chrysler = 11.1 percent. Shawn Tully, "Americas Best Wealth Creators," Fortune, November 28, 1994, pp. 143-162.
- 22. The table will apply to the customer's decision making process also, assuming the same marginal tax rate. From the customer's perspective, the terms in the EVA calculation are switched such that the benefit is the discount while the cost is the increase in their working capital (through a reduction in accounts payable). In either case, the discount solves for an EVA = 0.
- 23. The difference in the dollar amounts between the highest discount S should accept, and the lowest discount C should accept from the table, or $(1,000,000 \times .022) (1,000,000 \times .013) = 9,000$. S will create value by negotiating a discount lower than .022, while C will create value by negotiating a discount greater than .013.
- 24. S may decide that some factors relating to the riskiness of collecting on C's account require using a higher cost of capital for discount negotiations, similar to the distressed customer example earlier.