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Cash Flows from In-Kind Charitable Contributions: They're Worth More than You Think!

John B. White and M. Jill Lockwood

What do you do? Sales have slumped dramatically. Inventory is just not moving. Additional expenditures on advertising seem to be throwing money into a black hole. It's almost as if you can't even give your inventory away, and an idea germinates. You actually consider giving away the merchandise you can't sell. This idea is dismissed quickly, because you are not anxious to go out of business. What are the benefits to such a charitable donation?

Charity has been encouraged since ancient

times. Both the Bible and Koran have injunctions to be generous and caring toward those in need. More recently, the Internal Revenue Code has encouraged charity by making those contributions tax deductible. The contribution may be in cash or an in-kind transfer of real goods to the charity. If a corporation contributes inventory, the corporation must value the inventory at cost because the Code will not allow a taxpayer to value a charitable contribution for appreciation over cost that produces ordinary income.¹

Tax Savings from Charitable Contributions

A corporation is allowed an annual deduction of up to 10 percent of taxable income.² Accordingly, a corporation with \$1,000,000 in taxable income is allowed a \$100,000 annual charitable contribution deduction. The corporation's

tax rate is 34 percent and the corporation reduces its tax owed by \$34,000. If the corporation has taxable income of \$10,000,000 or more, its tax rate is 35 percent and a 100,000 contribution reduces tax owed by 35,000.³

Example #1

Dole Corporation donates canned goods costing \$100,000 with a fair market value (FMV) of \$270,000 to a local food bank. Dole would have to value the contribution at cost, \$100,000. A 34 percent corporate tax rate yields a \$34,000 tax savings.

Corporations that contribute "qualified inventory" to public charities⁴ or scientific research property to educational institutions can deduct cost plus one-half of the appreciation not to exceed 200 percent of cost, however.⁵ Qualified inventory must have a use that is related to the charity's tax exempt

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function. The inventory must be used for the care of the ill, the needy, or infants and the charity cannot receive any money, property or services for the use or transfer of the qualified inventory.

Example #2

Dole Corporation donates canned goods costing \$100,000 with a FMV of \$270,000 to a local United Way who gives the goods to a local food bank. Ordinarily, Dole would have to value the contribution at cost. However, since the canned goods are “qualified inventory” Dole may value the contribution at \$200,000 (200% of cost) or \$185,000 ($\$100,000 \text{ plus } \{\$270,000 - \$100,000\} / 2$), whichever is less. In this case, Dole’s charitable contribution deduction is \$185,000. Given the 34 percent tax rate used earlier, the same \$100,000 contribution in Example #1 (but going to a different recipient) reduces Dole’s tax liability by \$62,900 [34% of \$185,000].

By targeting the contribution to the qualifying public charity, Dole has recovered nearly 63 percent of the cost of the inventory. If the mark-up on cost had produced a higher FMV, then Dole’s deduction would have been limited by 200 percent of cost. The maximum tax deduction \$100,000 worth of inventory could produce under a 34

percent tax rate is \$68,000 ($200\% \times 100,000 \times 34\%$).

The tax breaks pertaining to qualified inventory described above are available only to corporations. To the extent that S corporations and partnerships pass their charitable contribution deductions to individual shareholders and partners the extra tax benefits are not available.⁶

Other Cash Flow Benefits of In-kind Contributions

Interest Saved

The benefit for an in-kind contribution does not stop with a tax credit. Consider a retailing firm with \$100,000 worth of clothing (valued at their cost) in their inventory. Assume that the mark-up is 120 percent (gross profit margin is 100%), which would give this inventory a retail value (or FMV) of \$220,000. However, because of the fickle nature of consumer tastes, these items have become very slow sellers. Price reductions have not been effective in moving the merchandise. The \$100,000 inventory, which you normally restocked four times annually (inventory turnover equal to 4) is now selling at a pace that it will take two years before it is all sold. A donation to a charity would save \$34,000 in taxes

(under Example #1), or \$62,900 (under Example #2). But the firm is still left with a loss of at least \$37,100 after the more beneficial tax deduction.

But you gain more from an in-kind donation than merely the tax credit. Eliminating the inventory means eliminating interest on loans to support carrying the inventory. A simple means of estimating the carrying cost of inventory is found in the economic order quantity (EOQ) analysis, Brigham and Daves (2007) or Gitman (2006), and operations management literature, Stevenson (2007) or Collier and Evans (2007).

Carrying cost is the product of the inventory loan’s interest rate (c), the product’s cost (P), and the average inventory carried (Q/2). Notationally: Annual carrying cost = $cP(Q/2)$.

Therefore, the average inventory (PQ/2) would be $(\$100,000 + \$50,000) / 2$, or \$75,000 the first year and $(\$50,000 + \$0) / 2$, or \$25,000 the second year. If you assume inventories are financed at 15 percent, then you save \$11,250 the first year and \$3750 the second year in interest by donating your merchandise today instead of selling it over a two year period. Since interest expense is tax deductible, you save the after-tax cost of the interest, or 66 percent of the interest expense (assuming a 34%

tax rate). This is \$7425 in the first year and \$2475 in the second year. Assuming the firm's cost of weighted average cost of capital is 9.5 percent, the sum of the present value of the after-tax interest savings is \$8845. This savings of \$8845 is in addition to the \$34,000 tax credit (or \$62,900 tax credit under example 2). The loss from the \$100,000 donation is now considerably less than before.

Returns from New Inventory

Keeping \$100,000 of the slow-moving inventory (inventory turnover of 0.5) with the FMV of \$220,000 implies sales of \$110,000 (half of the inventory.) Gross profits are \$60,000 (\$110,000 - \$50,000). But

the key is what is lost by maintaining slow-moving inventory instead of an inventory with your normal inventory turnover of four times per year. This same \$100,000 inventory, with a FMV of \$220,000, would produce gross profits of \$480,000 (\$880,000 - \$400,000). Fixed operating costs and depreciation are the same for selling either inventory, so these costs will not be a factor in determining the change in cash flow associated with donating the old and selling new inventory. The change in operating cash flow will be the after-tax difference in the change in gross profits. Notationally, this can be shown as:

$$\text{Difference CF} = (\text{Gross profit new} - \text{Gross profit old})(1-t);$$

where t = tax rate (34%).

$$\text{Difference CF} = (\$480,000 - \$60,000) (1 - .34) = \$277,200.$$

The increase in the cash flow is \$277,200 per year, which is a significant increase.

Timeline of Cash Flows from Charitable Contributions

The following timeline summarizes the cash flows from charitable contributions. The assumption is that \$100,000 of non-qualified inventory is donated and is fully deductible at the firm's tax rate of 34 percent.

If the \$100,000 contribution is non-qualified merchandise, is donated, and is fully deductible at the firm's tax rate of 34 percent (Example 1), the relevant cash flows are shown below.

	Year	0	1	2
Tax deduction from contribution		\$34,000		
Interest saved (after tax)		\$7,425	\$2,475	
Δ Cash Flow after tax (new inventory)			\$277,200	\$277,200
TOTAL		\$41,425	\$279,675	\$277,200

If the \$100,000 contribution is qualified merchandise, is donated, and is fully deductible at the firm's tax rate of 34 percent (Example 2), the relevant cash flows are shown below.

	Year	0	1	2
Tax deduction from contribution		\$62,900		
Interest saved (after tax)		\$7,425	\$2,475	
Δ Cash Flow after tax (new inventory)			\$277,200	\$277,200
TOTAL		\$70,325	\$279,675	\$277,200

Conclusion

This analysis has shown that the value of charitable contributions goes well beyond the simple value of the tax deduction. Properly structured as qualified inventory and given to the appropriate agency, the donation can produce an even larger tax benefit. The contribution also reduces the interest expense paid on slow moving inventory that is currently generating very little income for the firm. Most importantly, however, this donation allows you to focus on faster moving and more profitable inventory that will enhance firm value more effectively. The question to ask when considering a charitable contribution is not what is lost if merchandise is given away, but rather what is

lost if slow moving merchandise is kept? Focus on the change in after tax cash flows that the new inventory will produce.

Endnotes

1. I.R.C. Section 170.
2. Taxable income for this purpose is calculated without regard to the dividends received deduction, net operating loss carry backs, or capital loss carry backs.
3. I.R.C. Section 11.
4. Charities meeting the requirements of I.R.C. Section 501(c)(3).
5. I.R.C. Section 170 (e) (3).
6. I.R.C. Section 170 (e) (3) and 704.

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