

Case 4-1

Lightpoint, Inc. is a computer software company that seeks external financing in order to support its growth initiatives. As a relatively new firm, Lightpoint has generated scant profits and produced meager cash flows from operations to date. Sharon Light, the firm's founder and CEO, charged her Chief Financial Officer (CFO), Richard McManus, with securing debt financing that the firm can service with its income level and cash flows. Working with Lightpoint's investment banker (IB), McManus thought he found a potential solution to the problem. McManus agreed with the IB that the concept of floating *zero-percent* or *deep-discount* bonds deserved serious consideration.

Befitting its name, zero-percent bonds do not pay periodic interest, unlike conventional term bonds. Zero-percent bonds operate in the following manner:

- The firm receives an amount of cash upon issue that equals the present value of the amount it must repay upon maturity.
- It does not pay interest periodically to the bondholders in such an arrangement.
- The current market rate of interest determines the difference between the future value of money and its present value. (This difference is the amount of the bond discount, or the time value of money.)

Zero-percent bonds usually increase the borrower's cost of financing because the cash payments are loaded at the back-end of the bond contract. Investors demand a higher return on their investment for undertaking a greater degree of risk in such arrangements. Issuers structure deep discount bonds (other than zero-percent bonds) in a manner similar to zero-percent bonds, except the firm makes relatively small periodic interest payments on the par value of the bonds. For example, a firm may issue bonds that pay 1% interest when the effective rate of interest is 5% on the deeply discounted bonds. CFO McManus identified three financing avenues by which Lightpoint could raise \$200 million in capital on January 1, 2009. The firm could float bonds that mature on December 31, 2018 in one of three ways:

1. Conventional 4% par value, term bonds that pay interest annually interest on December 31.
2. Zero-percent term bonds (effectively yielding 6% interest).
3. Deeply discounted 1% term bonds (effectively yielding 5% interest and paying 1% interest each December 31).

The investment bank informs McManus that it can place the bonds with a private investor. Such a placement means that Lightpoint will be able to forego the time and expense normally associated with a public bond offering. The upshot of the private placement is that Lightpoint will not incur any material transaction costs. In considering the firm's financing alternatives, McManus estimated that Lightpoint would generate a little over \$3 million annually in excess liquidity in the near term. That surplus cash could be used to pay periodic bond financing charges if necessary. As McManus embarks on *running the numbers* for the alternatives, he gathers the following time value of money factors for ten time periods:

	4%	5%	6%
Future value of 1 (lump sum)	1.48024	1.62889	1.79085
Present value of 1 (lump sum)	.67556	.61391	.55839
Future value of an annuity	12.00611	12.57789	13.18079
Present value of an annuity	8.11090	7.72173	7.36009

One final factor that McManus considers is that the firm's lack of profitability has mitigated its income tax exposure. Consequently, income taxes will not affect his calculations or recommendation.

Required:

Cast yourself in the role of Richard McManus. Make a financing recommendation to Sharon Light in a memo. Be sure to discuss the financial implications of each alternative on the income statements, balance sheets, and statement of cash flows for 2009 and 2010 in your memo. You must attach an Excel spreadsheet(s) that contains calculations for the full ten years under each financing arrangement in order to support your financial statement implications for the next two years and your recommendation contained in the memo.