

Anderson Metals manufactures and sells #3 steel rebar that is used in the construction of slabs and driveways. The steel bar not only strengthens the finished concrete product, but it also has unique properties such that its temperature related expansion and contraction matches that of concrete. The product is manufactured and sold in 20' long "sticks." The product is generally produced and sold to match customer demand, and there is not a significant amount of finished goods inventory at any point in time. Summary information for 20X6 is as follows:

Sales were \$20,000,000, consisting of 5,000,000 sticks.

Total variable costs were \$11,000,000.

Total fixed costs were \$8,000,000.

Net income was \$1,000,000.

The general economic conditions appear to be deteriorating heading into 20X7, and there is some concern about a reduction in sales volume. The following questions should each be answered independent of one another.

- (a) What is the company's break-even point in "sticks?" Can the company sustain a 30% reduction in total volume, and remain profitable?
- (b) The company's sole shareholder, Doug Anderson, generally lives off of dividends paid by the business. The business typically declares and pays a dividend equal to 25% of net income. If Doug needs to receive \$100,000 in dividends for normal living expenses, what total revenues must Anderson Metals produce in 20X7?
- (c) If total volume is expected to decrease by 20%, and the company wishes to continue to produce a \$1,000,000 net income by raising the per unit selling price, what revised per stick price must be imposed? Will this strategy necessarily work?
- (d) If the company expects a drop in raw material prices to reduce total variable costs to \$2 per stick, but all other revenue and cost factors to be unaffected, what will be the revised break-even point in sales and units?