# Finance Decisions and Projected Cash Flows Explanations - Cause-Effect Relationships - Tips/Suggestions 

Your company's management team is $100 \%$ responsible for having sufficient funds available to pay all of the required cash outlays for the upcoming year.

This screen involves as many as 8 finance-related decision entries, but just as importantly, provides you with (1) projections of total cash available and total cash outlays in the upcoming year, (2) projections of important financial statistics, and (3) projections of the company's performance on the three credit rating measures at year-end. All of these projections provide you with the feedback and information needed to evaluate the various options you have to finance the company's operations. You should try out several different "what-if" financing combinations and use the onscreen calculations/projections to create a financing strategy that holds the potential for the most favorable financial outcomes.

Making entries on the finance screen should always come last in the decision-making process because, until all of the entries on all the other decision screens have been finalized, the projections of cash available and cash outflows are unreliable. Hence, any finance decisions you might make are "premature" and will need to be reconsidered later.

Use the links below to quickly access the desired Finance and Cash Flow decision topics.

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## The Projected Ending Cash Balance

The Company Earns Interest on Cash Balances. Your company earns interest on any positive cash balance in the company's checking account at the beginning of each year (next year's beginning-of-theyear cash balance, of course, is the same as this upcoming year's ending cash balance). The interest rate paid on cash balances is always 3.0 percentage points below the prevailing interest rate for shortterm loans carrying an A+ credit rating.

Avoid the Risk of Penalty Interest on Overdraft Loans. If the company overdraws its checking account to pay all of its upcoming-year required cash outlays, then the Global Community Bank (with whom the company has a long-term agreement to handle its banking transactions) will automatically issue your company a 1 -year overdraft loan in an amount sufficient to bring your checking account balance up to zero. The interest rate charged on overdraft loans carries a $2 \%$ interest rate penalty (that is, if your company's credit rating entitles it to a $6 \%$ short-term interest rate, then any overdraft loan will carry an $8 \%$ interest rate). The interest rate your company will have to pay on any overdraft loans, given its present credit rating, is shown in the bottom left section of this screen.

The potential for overdrawing your checking account this upcoming year is strongly signaled by

- A projected negative ending cash balance in Company Performance Projection box on the middle left of each decision screen (a projected negative cash balance on this screen is always
shown in red, as a warning of the need for co-managers' to take action to avoid the $2 \%$ penalty interest adder).
- A small positive projected ending cash balance (because there is always uncertainty/risk that sales volumes and revenues will not be as high as projected due to unexpectedly tougher competition from rivals).

In such instances, you may want to consider taking out a 1-year loan sufficient to end the year with a projected cash balance of at least $\$ 10$ million (and perhaps more) as a means of protecting against overdraft loans. Here's why. There's very real potential for "Receipts from Sales" in the Cash Inflows listing in the "Projected Cash Available" section to be significantly lower than shown because of stronger-than-anticipated competitive efforts from rivals. Thus, while "Receipts from Sales" in the Projected Cash Available section might, for example, be $\$ 375$ million, there is some probability that actual unit sales of cameras/drones will turn out to be lower than projected and produce revenues of only $\$ 360$ million. A cash inflow shortfall of this magnitude, even with a contingency cash reserve of $\$ 10$ million in your projected year-end checking account, will produce a $\$ 5$ million overdraft loan. Since it is not uncommon for actual "Receipts from Sales" to come up short of what is being projected, avoiding overdraft loans typically requires maintaining a fairly sizable projected year-end cash balance cushion. Maintaining a large year-end cash balance has the advantage of generating interest income in the following year, so there's not much downside to having "ample" or "bigger-than-expected" cash on hand and keeping a nice balance in your company's checking account.

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## Bank Loans

If your company's projected year-end cash balance is negative or just slightly positive (see the Company Performance projections in the box on the middle left of the screen), indicating your company could very well have insufficient cash available from all sources to cover all of the required cash outlays/payments, then one option is to cover any potential cash flow deficiency by borrowing the needed funds - the other two options are to (1) sell additional shares of stock and raise new equity capital and (2) cut the company's dividend payment (assuming the company is paying a dividend), which will reduce cash requirements for dividend payments and provide cash for other purposes. Officials at the Global Community Bank, under terms of a long-term banking agreement with the company that also includes foreign currency transactions, have agreed to loan the company additional monies should company co-managers elect to use debt to help finance growth and capital expenditures. The interest rate on any such loans is tied to the company's credit rating and the going rates of interest in world financial markets.

If you opt to borrow the needed monies to cover the projected cash deficiency and provide a cash reserve buffer of, say, $\$ 10+$ million, then you and your co-managers will have to decide whether the term(s) of the loan(s) should be 1 year, 5 years, 10 years, or some combination of these.

One-year loans are granted at interest rates based on the company's current credit rating-the lower a company's credit rating, the higher its interest rate on 1-year loans (your company's interest rate for 1year loans is always shown in parentheses beside the decision entry box for 1-year loans). Loans for 5year terms carry a $0.50 \%$ interest rate adder over your company's interest rate for 1 -year loans, and 10year loans carry a full $1 \%$ interest rate adder over the 1 -year loan rate.

There are pros and cons to each of the 3 terms of loans:

- A 1-year loan has the advantages of a lower interest rate, quicker payback, and smaller total interest costs over the life of the loan, but the disadvantage/risk of perhaps having to re-finance some or all of the 1-year loan debt next year at perhaps less favorable interest rates should next year's total cash available from internal sources not be sufficient to fully repay the principal due on the 1-year loan and global interest rates rise.
- Longer 5-year or 10-year loans have the advantages of locking in what may be an attractive longterm interest rate and lowering annual principal payments.
- However, 5 -year or 10-year loans, in addition to their higher interest rates, have the disadvantage of causing the company to pay out bigger sums for interest over the life of the loan (which, in turn, causes the company to have a lower interest coverage ratio than it might otherwise have achieved). A lower interest coverage ratio weakens the company's credit rating. (All three factors determining your company credit rating are discussed just below.)

Note: If in a given year your company's interest coverage ratio falls below 2.00, then in the following year you will be restricted from borrowing long-term (no new 5-year or 10-year loans) until such time as the coverage ratio at the end of the prior-year rises to 2.0 or higher.

The maximum amount of a 1-year loan in a single year is $\$ 250$ million; the maximum amounts of any single 5-year loan and any single 10-year loan are also $\$ 250$ million - these maximums give you total borrowing power of $\$ 750$ million in a single year, which is far in excess of any amount your company should ever seriously contemplate borrowing. Borrowing anywhere near this $\$ 750$ million amount in a single year would almost certainly crush your credit rating and imperil the company's financial well-being. Just because you have the discretionary authority to borrow large sums doesn't in any way imply that you should go overboard in the use of debt to finance the company's operations.

> Suggestion: Shorter-term loans are usually better from an interest cost standpoint than longerterm loans if you expect that cash flows will be adequate in a year or two or three to allow you to pay off the loan. If the cash deficiency is mainly attributable to having invested in new fixed assets with a 20-year life (workstations, facility space, robots), then a 5 -year or 10-year loan is reasonable-particularly if your company's credit rating is B+ or better and interest rates are low; locking in a low interest rate for several years to come makes more sense than running the risk of taking out a series of 1 -year loans at potentially higher interest rates (should your company's credit rating go down or should global interest rates jump). If, however, your company's credit rating is currently depressed and/or interest rates are high, then you may be wise to take out a 1 -year loan and then take out a longer-term loan later in hopes that company's financial condition improves and/or worldwide interest rates drop.

However, you and your co-managers have to guard against overuse of debt to finance the company's growth and operating requirements. Progressively higher levels of debt will, at some point, start to negatively impact the company's credit rating.

The Three Factors Determining Your Company's Credit Rating. A company's credit rating is a function of three measures of creditworthiness and financial strength:

1. The current ratio (defined as current assets divided by current liabilities). A company with a current ratio below 2.0 is considered to lack adequate financial liquidity because it may have difficulty in converting enough of its current assets into cash to pay its current liabilities; the further a company's current ratio is below 2.0, the bigger the credit rating penalty. Companies with current ratios in the 2.5 to 5.0 range generally have little difficulty in converting enough current assets into cash to pay their current liabilities. In general, the higher a company's current ratio is above 2.0, the stronger is its short-term financial liquidity-a factor that contributes to a higher credit rating.
Be aware the 1-year loans and overdraft loans adversely affect your company's current ratio (because such loans qualify as current liabilities). See your company's Balance Sheet, which can be found on page 4 of the Company Operating Report. Note also that the "Current Portion of LongTerm Loans" shown on the Balance Sheet also is a current liability.
2. The interest coverage ratio (defined as annual operating profit divided by annual interest payments-this ratio is considered as an income statement ratio because the numbers are always contained on every company's Consolidated Income Statement). Your company's interest coverage ratio is used by credit analysts to measure the "safety margin" that lenders have in assuring that company profits from operations are sufficiently high to cover annual interest payments. An interest
coverage ratio of 2.0 is considered "rock-bottom minimum" by credit analysts. A coverage ratio of 5.0 to 10.0 is considered much more satisfactory to help buffer against year-to-year earnings volatility, the potential for unexpectedly intense competitive pressures to suddenly erode a company's profitability, and the relatively unproven management expertise at each company. It can take a double-digit times-interest-earned ratio to secure an A- or higher credit rating when a company's standing on the other two credit rating measures is not especially strong. The interest coverage ratio measure is strongly weighted in determining company credit ratings.
3. The debt-to-equity ratio (defined as total liabilities divided by total stockholders' equity-this ratio is considered as a balance sheet ratio because both numbers always appear on company balance sheets). The debt-to-equity ratio concerns the percentage of total assets financed by all types of creditors (which equates to total liabilities as reported on company balance sheets) and the percentage financed by shareholders (which equates to total shareholders' equity as reported on company balance sheets). The debt-equity ratio is often expressed as a number or a percentage or a combination of the respective debt-equity percentages. For example, if a company has total liabilities of $\$ 100$ million and total shareholders' equity of $\$ 150$ million, then the debt-to-equity ratio would be:

- 0.40 if expressed as a number ( $\$ 100$ million divided by $\$ 250$ million). A number less than 1.0 signifies that a company is financing its total assets with a bigger fraction of shareholder money than money provided by creditors. Companies with a debt-to-equity number less than 1.0 are considered less risky by banks; companies with a debt-to-equity number greater than 1.0 are considered more risky, especially as the number rises progressively above 1.0 to 2.0 to 3.0 and higher. A debt/equity ratio of 4.0 signals that the monies being provided by creditors are 4 times as big as the monies being provided by shareholdersclearly making the company "very high risk" from the standpoint of bankers who may have loaned the company sizable amounts. Accordingly, a company's credit rating is progressively strengthened as its debt-to-equity number falls progressively below 1.0, and its credit rating is punished as its debt-to-equity number progressively rises above 1.0.
- $40 \%$ if expressed as percentage ( $\$ 100$ million divided by $\$ 250$ million times 100). Similarly, the farther the debt percentage is below $100 \%$, the bigger the degree to which shareholders are financing the company's total assets and the lower the risk that bank lenders will have in loaning the company money. Consequently, a company's credit rating is progressively strengthened as its debt-to-equity percentage falls progressively below 100\%, and its credit rating is punished as its debt-to-equity percentage progressively rises above $100 \%$.
- 40:60 if expressed as a combination of the debt and equity percentages of total assets. The first number is always the debt percentage and the second number is always the equity percentage-GLO-BUS uses the combination of the respective debt/equity percentages approach. The more the debt percentage is below 50 and the bigger the equity percentage is above 50 , the less risk to lenders that a company will be unable to make interest and principal payments. Conversely, debt-to-equity percentages of $75: 25$ would plainly pose a high risk to bank lenders, because of the borrower's financial burden in having to make large annual interest payments and big annual principal payments on outstanding loans that could soak up a big fraction (perhaps even all or more) of cash flows from operations.

Bear in mind that the only liability which a camera/drone company has other than bank debt is "accounts payable" which is always small enough to be covered by the "accounts receivable" component of Current Assets. Thus, the biggest fraction of your company's total liabilities tends to be bank loans (unless most of the company's loans have been repaid).

Thus, insofar as camera/drone companies are concerned, it follows that:

- As a company's debt percentage falls below 50 and its equity percentage rises above 50 , the debt-to-equity measure helps strengthen its credit rating.
- As a company's debt percentage rises above 50 and its equity percentage falls below 50 , the debt-to-equity measure of its creditworthiness punishes its credit rating.

In the case of companies in the camera/drone industry, the Global Community Bank tends to view companies having acceptable current ratios and times interest earned coverages and a debt-to-equity ratio of up to $50: 50$ (or 0.5 or $50 \%$ ) as financially stable and reasonably creditworthy. Companies with debt-to-equity ratios (or percentages) of 20:80 to $35: 65$ are considered "financially sound," while companies with ratios/percentages of $55: 45$ to $65-35$ are considered "medium to high risk" and companies with percentages above 70:30 are considered "very high risk" because they are using "too much" debt and creditor financing in operating their business.

## The interest coverage ratio and the debt-to-equity ratio are the two most important measures in determining a company's credit rating.

Your company's prior-year and projected performance on these three credit rating measures is shown in the bottom right section of the screen, allowing you to keep close tabs on whether any of the three measures merit changes in the company's finance decisions.

As a rule of thumb, it will take a debt-to-equity percentage approaching 15:85 to achieve an A+ credit rating and debt-equity percentages of $25: 75$ to $30: 70$ to achieve an A- credit rating (unless counterbalanced by an interest coverage ratio in the 7 to 10 range and a current ratio above 3.00). Debt-to-equity percentages of $50: 50$ to $60: 40$ can still produce a B+ or A-credit rating for companies having strong interest coverage ratios (say 8.0 or higher) and acceptable current ratios of 2.5 to 5.0.

Anything below a B+ (and certainly below a B) credit rating projection is a red-flag warning that your company's financial condition and balance sheet strength is projected to be sub-optimal and merits immediate reconsideration of the finance decisions you have entered.


#### Abstract

Recommendation: Exercise caution in borrowing much additional monies when the projected effect lowers the company's credit rating below a B rating. You and your co-managers are well advised to observe prudent financial management practices and avoid actions that put your company in a big financial hole. Protecting your company's creditworthiness and ability to borrow at attractive interest rates is particularly crucial if (1) your strategy involves undertaking heavy capital expenditures for workstations, robots, and bigger assembly facilities or (2) your company needs to refinance high-interest debt to escape burdensome interest costs.


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## Issuing Additional Shares of Stock

At the end of Year 5, the company had 20 million shares of common stock outstanding. The company's board of directors has established a 40 -million share maximum on the total number of shares outstanding. In addition, the board each year establishes a maximum on the number of shares that can be issued in the upcoming year-this maximum is shown just below the decision entry field for stock issues.

The company cannot issue new shares in the same year that it elects to buy back and retire outstanding shares. This is not much of a handicap because both actions are not really needed at the same time. If you and your co-managers are issuing new shares to raise equity capital, then obviously the company lacks the cash needed to pay for any stock repurchases.

New shares of common stock are issued at the prevailing market price less a discount based on the percentage dilution - the price declines as more shares are issued because additional shares dilute earnings per share and the percentage of the company owned by the holders of the already outstanding shares. Each time you make an entry specifying how many shares are to be issued, you can see the total amount of new equity capital raised and the price at which investors will agree to buy the newly-issued shares by looking at the line labeled "Stock Issue" in the listing of Cash Inflows in the "Projected Cash Available" section of the page.

New issues of common stock, of course, have the effect of diluting earnings per share and lowering ROE (both of which adversely impact the company's stock price) and thus should be done cautiously and infrequently. As long as your company's credit rating is strong (B+ or better), your company's management team is probably well-advised to cover negative projected cash balances with new bank loans.

But when the company's credit rating starts to be impaired by taking on additional debt to fund capital expenditures, then it can become advisable, if not imperative, for you and your co-managers to consider raising additional equity capital via new stock issues in order to:

1. Help pay down a portion of the outstanding loans (because of burdensome interest costs or because lowering debt is the best way to improve the company's credit rating) and/or
2. Help pay for additional workstations, assembly facility space, and robotics upgrades.

In deciding how many shares to issue, you should try several "what if" entries and search for the most satisfactory combinations of the amount of money raised and the dilution effects on EPS and ROE.

Note: If the company deploys the new equity capital to good advantage and earns a good profit on its new equity investments, then EPS and ROE should return to their former, or even higher, levels-in which case the dilution effect of the new stock issue will prove temporary.

The following example takes you through the cash flow and balance sheet implications of issuing new shares of stock:

Assume the company decides to raise capital by issuing 1 million shares of stock and that the discounted issue price is $\$ 25$ per share. The 1 million-share stock issue will then generate $\$ 25$ million in cash (1 million shares x $\$ 25$ per share) for immediate use. In the stockholders' equity portion of the balance sheet, the Common Stock account will increase by $\$ 1$ million ( $\$ 1$ par value $\times 1$ million shares issued), and the Additional Capital account will increase by $\$ 24$ million [ ( $\$ 25$ issue price $-\$ 1$ par value) $\times 1$ million shares issued]. The Additional Capital account represents the amount shareholders have paid for new shares over and above par value.

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## Early Repayment of Bank Loans

There are at least two occasions in which it makes sense to consider early repayment of long-term (5year and 10-year) bank loans rather than continuing to make the scheduled annual principal and interest payments:

1. If your company's credit rating allows you to refinance the outstanding loans at a lower rate of interest-you can always take out a new loan and use the proceeds to pay off the outstanding balances on one or two existing loans carrying higher rates of interest than the new loan.
See Note 8 to your company's balance sheet statement for a listing of the 5-year and 10-year loans outstanding and the associated interest rates and annual principal payments.
2. If your company's cash flows are healthy and lead to projected year-end cash balances well above what is needed to protect against overdraft loans, then the excess cash on hand can be used to pay down the principal on any loans outstanding.

All early loan repayments are considered end-of-year repayments; thus, the company will incur interest on these loans until repayment occurs at the end of the upcoming year.

## Dividend Payments to Shareholders

Company co-managers have the authority to declare a higher or lower dividend, subject to certain conditions. Higher dividends are welcomed by shareholders and have a positive effect on the company's stock price (unless dividend payments exceed earnings per share and can't be sustained at present levels).

- The maximum allowable dividend entry is 2 times projected earnings per share.
- Projected shareholders' equity must always remain at or above $\$ 100$ million after any and all dividend payments.
- No dividend can be paid if projected shareholders' equity falls below the $\$ 100$ million minimum established by the company's board of directors (a policy that is enthusiastically endorsed by the credit rating agencies).

Caution: Paying a per-share dividend that is significantly higher than the actual earnings per share for the year is alarming to creditors and credit rating agencies, and the company's Credit Rating for the year may be penalized by as much as an entire letter (reduced from A+ to B+, for example). Likewise, paying a dividend greater than actual EPS is badly received by investors/shareholders because it is unsustainable and will cause the company's stock price to be below what it would otherwise be.

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## Repurchasing Shares of Stock

Using "excess" cash on hand to repurchase and retire outstanding shares has the advantage of boosting EPS, ROE, and the company's stock price.

The company's board of directors has decreed that:

- No shares may be retired if the share price falls below $\mathbf{\$ 1 2}$ (since such a price reflects unacceptably weak financial performance and the need to avoid spending money for share repurchases).
- The company must maintain a minimum total shareholders' equity of $\$ 100$ million. Total shareholders' equity, as reported on the company's balance sheet, equals the sum of Common Stock plus Additional Capital plus Retained Earnings. Your company's total shareholders' equity at the end of Year 5 was $\$ 114.5$ million.
- The company must maintain a minimum of 15 million shares outstanding.
- While you have the authority to initiate stock repurchases, the Board of Directors has reserved the right to limit the number of shares repurchased in any given year-such limits vary from year to year and are shown on this screen just below the stock repurchase entry field, but these limits are also subject to all three conditions above.
- The company cannot repurchase outstanding shares in the same year that it elects to issue new shares. This is not much of a handicap because both actions are not really needed at the same time. If the company has the money to repurchase shares, it makes no sense to be issuing new shares to raise additional equity capital.

Each time you enter a number for share repurchases, you are provided with on-screen calculations showing the total cost of the repurchased shares (see the cash outlays listings) and the price at which investors will agree to sell the shares you want to buy back (see the text beside the decision entry box). The price to repurchase shares rises as more and more shares are repurchased because, with fewer and fewer shares outstanding, each share is worth more to the owners of those shares (due to the associated increase in EPS and ROE). The three big benefits of repurchasing shares are the boost that share repurchases give to EPS, ROE, and the stock price.

In deciding whether and how many shares to repurchase, you should try several "what if" entries and check out the effects on earnings per share, return on equity, and the amount of money your company will have to pay for repurchased shares. If your company has a very strong credit rating (at least $A$ - or higher) and is not planning new capital investment, you may want to consider even borrowing money to repurchase shares.

The following example explains the cash flow and balance sheet implications of retiring shares of stock:


#### Abstract

Assume the company decides to repurchase 1 million shares of stock at a buyback price of $\$ 38.50$. The 1 million-share stock repurchase will require $\$ 38.5$ million in cash ( $\$ 38.50$ per share x 1 million shares retired). In the stockholders' equity section of the balance sheet, the Common Stock account will decrease by $\$ 1$ million ( $\$ 1$ par value $\times 1$ million shares retired) and the Additional Capital account will decrease by $\$ 37.5$ million [ ( $\$ 38.50$ repurchase price - $\$ 1$ par value) $\times 1$ million shares retired]. Since the Additional Capital account represents the amount shareholders have paid for new shares over and above par value, this account is always debited for the full amount the company pays for repurchased shares in excess of par value.


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## Projected Cash Available

Projections of the cash your company will have available to pay for operations in the upcoming year are shown just under the section for the decision entries. A brief explanation of each of these entries follows:

Beginning Cash Balance - this amount is always equal to the prior-year ending balance in your company's checking account at the Global Community Bank (and the amount always corresponds to the "Cash on Hand" entry shown on your company's balance sheet for the prior year). The ending cash balance in the prior year plainly translates into the beginning cash balance for the upcoming year.

Cash Inflows (projected for the year) - In addition to the beginning cash balance, your company will have projected cash inflows coming from some or all of 6 sources:

- Receipts from Sales of Cameras/Drones - These receipts are usually your company's biggest source of cash for the upcoming year. Projected receipts from camera/drone sales consists of (1) $25 \%$ of prior-year worldwide camera sales to retailers and $25 \%$ of prior-year $3^{\text {rd }}$ party drone sales in the previous year (which were not received from camera retailers and $3^{\text {rd }}$ party online drone customers until the upcoming year-because of the company's practice of granting these buyers 90-day payment terms on their purchases) and (2) $75 \%$ of the revenues from worldwide camera sales and $75 \%$ of $3^{\text {rd }}$-party drone sales that your company is projecting for this upcoming year. Cash inflows from worldwide camera/drone sales thus do not correspond to calendar year revenues because the company does not immediately receive payment for (1) the action cameras it sells worldwide to camera retailers and (2) the drones it sells to 3rd-party online retailers sold in the last 90 days of each calendar year. There is an average 90 -day delay in receiving the cash for cameras sold to camera retailers and for the drones sold to $3^{\text {rd }}$-party online retailers that have been booked as sold-revenues are booked when orders are shipped to buyers from the company's assembly facility in Taiwan, but, on average, the cash received from these sales to these buyers does not become available for company use until 90 days later. As has been repeatedly emphasized, there is some uncertainty surrounding the projection for receipts from camera/drone sales because while the cash inflows from prior-year sales are certain, unexpectedly strong competitive efforts by rival companies can cause actual Receipts from Sales to be less than what is shown. On the other hand, should unit sales of cameras/drones turn out to be greater than projected, then the projected receipts from sales will be greater than what is shown.
- Cash from 1-Year, 5-Year, and 10-Year Bank Loans - All of the money your company opts to borrow in the upcoming year-as indicated by your decision entries in the boxes for 1-year, 5-
year, and 10-year loans at the top of this screen-will be available for funding cash outlays in the year the loans are taken out.
- Proceeds from Stock Issues - Should you and your co-managers elect to raise additional equity capital by issuing additional shares of common stock, then the full amount of the proceeds will be available for use in the year the stock is issued. Any cash inflow amount showing in the Stock Issue line is a direct reflection of any entries in the Stock Issue decision box.
- Loan to Cover Overdrafts - Any time your year-end cash balance is showing a negative number, there looms the prospect of an overdraft loan to bring your company's checking account balance up to zero. The proceeds from this loan appear as a projected cash inflow and will also appear as a current liability on your company's projected Balance Sheet.
- Interest Income on Prior-Year Cash Balances - Your company earns interest on any positive cash balance in the company's checking account at the beginning of each year; the interest rate paid on cash balances is always 3.0 percentage points below the prevailing interest rate for short-term loans carrying an A+ credit rating. All interest earned on the prior-year's beginning cash balance is paid in the upcoming year and will be available for the company's use.
- Cash Refund - Normally, this amount is zero. However, there may be an occasion when your instructor, for reasons/circumstances of her/his choosing, may determine to award your company a refund.


## The only one of the cash inflow projections that is uncertain is the Receipts from Sales-all others are certain, given your decision entries.

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## Projected Cash Outlays

The company's finance and accounting department always pays all of the amounts owed in a timely fashion. It is not permissible for you and your-co-managers to opt to delay any payments due employees or suppliers, nor is it permissible to delay scheduled principal payments on loans or tax payments. Hence, you and your co-managers have to be prepared to have sufficient cash in your company's checking account to cover $100 \%$ of the company's bills and financial obligations.

Explanations of each of the items listed in the Projected Cash Outlays section of the screen are presented below:

- Payments to Components Suppliers - The projected cash outlays for camera/drone components purchased from suppliers is based on (1) $25 \%$ of the previous year's costs of camera/drone components-because the company's suppliers grant the company 90-day payment terms on all component purchases (thus payments are not due on the costs of the components used in the $4^{\text {th }}$-quarter of the previous year until sometime in the $1^{\text {st }}$ quarter of this upcoming year) and (2) $75 \%$ of the component costs of the number of cameras/drones projected to be assembled this upcoming year at the company's Taiwan assembly facility. There is uncertainty regarding this $75 \%$ of the components costs of the number of cameras/drones projected to be assembled this upcoming year because actual buyer demand for the company's cameras/drones can turn out to be higher/lower than projected.
- Production and Assembly Expenses - The projected cash outlays for non-component production and assembly expenses are based on all your decision entries for labor force compensation, worker training, workstation maintenance, robot maintenance (if any), and any expenses for "green" initiatives to support environmental sustainability. Depreciation costs are not included because the charge for depreciation is not a cash outlay.
- Delivery, Marketing and Administration Expenses - Cash outlays for this item include shipping costs for cameras/drones, import duties, all types of advertising costs, expenditures for retailer support, the costs of website operations, all types of administrative expenses, and other corporate overhead.
- Capital Outlays - This item includes all costs for facilities expansion for new camera/drone workstation space, new camera drone workstations, and robotics upgrades-and are a direct consequence of your decision entries for these items.
- Principal Repayments on Loans - All payments for 1-year, 5-year, 10-year, and overdraft loans (overdraft loans are treated as a 1-year loan) must be made on time. The scheduled principal payments on each of your company's outstanding loans appear in Note 8 on your company's Balance Sheet Statement. But the number for principal repayments on loans showing on the screen is an accurate total of the scheduled principal payments on each loan.
- Interest Payments - Cash outlays for interest include the interest due and payable in the upcoming year for 1 -year, 5 -year, 10-year, and overdraft loans.
- Stock Repurchases - This amount reflects how much cash it will take to buy back the number of shares indicated in the Stock Repurchase decision box at the top of this screen.
- Income Tax Payments - The company's tax rate is $30 \%$ of pre-tax income-pretax income is defined as companywide operating profit less interest expenses. The projected cash outlay for tax payments is a direct function of the amount of profit your company is projected to earn. However, the company is entitled to carry forward any net losses for one year in calculating its tax obligations; hence a company that loses money in a year but earns a net profit in the following year will not pay a full $30 \%$ tax rate in the following year due to a "credit" for prior-year losses against the tax due in the upcoming year.
- Dividend Payments to Shareholders - This outlay is always equal to the annual dividend per share (as indicated in the decision box for Dividends at the top of this screen) multiplied by the number of shares outstanding (after the repurchase of any shares). For instance, if your company has 10 million shares of common stock outstanding and pays an annual dividend of $\$ 1.00$ per share, then annual cash outlays for dividends will be $\$ 10$ million. Should your company at some juncture find itself in a cash squeeze and company co-managers don't wish to borrow any additional money or issue shares of stock, then you can generate additional cash internally by cutting the dividend and curbing the cash outlays for dividend payments to shareholders.
- Charitable Contributions - This amount is based on your decision entries for charitable contributions on the Corporate Social Responsibility and Citizenship decision screen.
- Cash Fine - Normally, this amount is zero. However, there may be an occasion when your instructor decides to fine your company for actions/behavior that he/she considers "out-ofbounds," illegal, unethical, or otherwise deserving of punishment.

Several of these projected outlays (payments to components suppliers, production and assembly costs, shipping costs, import duties, and income tax payments) can turn out to be higher/lower because actual unit sales of cameras/drones in any or all geographic regions may be higher/lower than projected, which in turn affects company profitability and thus income tax payments.

Suggestion: The uncertainty surrounding the amounts of the various projected cash outlays is a further reason to make "adequate" provisions for ending the year with a "comfortable" ending cash balance cushion.

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