Chapter 1

Cash Flow Disruptions

Failure to keep track of money may cause a business to fail. By not monitoring its cash—measuring it, investing it, borrowing it, and collecting it—an otherwise profitable operation can erode into insolvency. Without proper cash flow, a company cannot pay its bills on time, which may injure its credit rating. Bankruptcies are caused by lack of cash as well as by inability to earn a profit.

Having "enough" cash means having what's needed ready *at the right time*. Poor cash flow can cause loss of attractive opportunities, such as the ability to buy inventory at bargain prices or to pay vendors early to earn a discount. Businesses need adequate cash flow to purchase merchandise for resale, meet operating expenses, and pay debt. A situation in which a company must advise a lender, a creditor, or the Internal Revenue Service that it cannot pay indicates a lack of managerial competence. It is important to find ways to accelerate cash inflows and delay cash outflows.

The problems discussed in this chapter are:

- Inadequate cash position.
- Surplus funds.
- Delayed customer payments.
- Paying cash too soon.
- Cash outflows exceeding cash inflows.

- Going broke while maintaining profits.
- Inefficient use of cash.

PROBLEM
INADEQUATE CASH POSITION

SYMPTOM

Cash is unavailable to pay operating expenses as they arise—to buy inventory, to pay debt, to meet dividends, or to support expansion policies. A portion of the cash may be restricted (for example, a compensating balance does not represent “free” cash).

CAUSES

The firm’s day-to-day operations are imperfectly synchronized.

- Contractual obligations require that the firm retain a minimal balance at all times.
- The company is required to hold cash balances to compensate banks for services provided.
- Weak collection policies leave the firm showing a net income but lacking liquid funds. (You *can* go broke while making a profit.)
- Cash is unavailable because it is held in a politically unstable foreign country, in a time deposit, or in a temporary escrow account.

ANALYSIS

Managers must determine what percentage of the cash balance is unavailable for use. Liquidity is improved when earnings are backed up by cash. A declining flow of cash from operations into net income indicates a cash flow problem. Look at:

- Cash flow generated from operations before interest expense.
- Cash flow generated from operations less cash payments required to pay debt principal, dividends, and capital expenditures.
- Cash reinvestment ratio (cash employed/cash obtained). Cash employed equals increase in gross plant and equipment plus increase in net working capital. Cash obtained equals income after tax plus depreciation. A high cash reinvestment ratio indicates that more cash is being used in the business.

Examine the trend in the ratio of sales to cash. A high turnover rate points to cash inadequacy. Financial problems may arise if further financing is not available at reasonable rates.

The manager must compute the following ratios:

- Cash from sales to total sales. A high ratio means that sales are generating cash flow. It also indicates quality sales dollars.
- Cash debt coverage—cash flow from operations less dividends divided by total debt. Cash flow from operations less dividends is referred to as retained operating cash flow. This calculation indicates the number of years current cash flows will be needed to pay debt. A high ratio shows that the company can repay its debt.
- Cash flow from operations less dividends divided by the current maturities of long-term debt. This ratio can be adjusted further by adding to the denominator current liabilities or other fixed commitments, such as lease obligations.
- Cash dividend coverage—cash flow from operations divided by total dividends. This ratio reflects the company's ability to meet current dividend obligations from operating cash flow.
- Capital acquisitions ratio—cash flow from operations less dividends divided by cash paid for acquisitions. This ratio reveals the company's ability to finance capital expenditures from internal sources.
- Net cash flows for investing activities divided by net cash flows from financing activities compares the total funds needed for investment (purchase of fixed assets and investments in securities) to funds generated from financing (debt and equity).
- Net cash flows for investing divided by net cash flows from operating and financing activities. This compares the funds needed for investment to the funds obtained from financing and operations.
- Cash return on assets—cash flow from operations before interest and taxes divided by total assets. A higher ratio indicates a greater cash return on assets employed. However, this ratio contains no provision for replacing assets or for future commitments.
- Cash flow from operations divided by total debt plus stockholders' equity. This indicates the internal generation of cash available to creditors and investors.

- Return earned by stockholders—cash flow from operations divided by stockholders'equity.

REPAIR

- Shore up finances immediately either by incurring debt or by issuing preferred or common shares to bring in the cash needed to operate effectively.
- Establish open lines of credit (or try to refinance if rates have fallen).
- Sell assets to generate cash.
- Enter into sale-leaseback arrangements.
- Postpone cash payments where possible.
- Rent rather than buy.
- Make only those cash payments necessary to maintain current operations.
- Reduce selling prices on products to generate cash flow.

PREVENTION TECHNIQUES

- Check the credit standings of new customers with TRW and Dun & Bradstreet.
- Analyze cash collection and disbursement processes, since these areas can be exploited to manage cash holdings more effectively.
- Analyze customer payment history, such as average number of days beyond term. Send past due notices and make phone calls promptly.

  Policies should be designed to take advantage of float in the payment and disbursement system. To speed cash collections, customers should be instructed to send their payments to the company's headquarters or a nearby collection center to minimize mail delay. Customers can also be instructed to mail payments to a post office box only a few hundred miles away. The box should be emptied several times a day. Large checks, for example, those over $1 million should be picked up by courier rather than having customers mail them. Customers who make the same purchases every month can give the seller a preauthorized check (PAC) that allows the seller to write a check on the payor's account and deposit it at an agreed time. This procedure will eliminate the mail float. Companies should pay bills on time, not after but also not before they are due. Set up checking accounts in areas located a long distance from suppliers. This will increase the time it takes for a check to clear the banking system for eventual payment. For a seller large incoming cash payments can be made by wire transfer or through an automated clearinghouse to give faster access to the cash proceeds.

- Improve credit and collection policies. Encourage cash sales. For credit sales insist on a significant down payment and short payment terms. Charge interest on delinquent balances.
- Extend the maturity dates on debt to retain cash longer.
- Prepare cash forecasts to improve financial planning. The forecasts will help you be prepared for problem times when the cash position will be weak.
- Engage in joint ventures where the other company provides the cash funding.

SPILLOVER EFFECTS

If financing is available, a deficient cash position will mean you pay higher interest on loans and creditors will place restrictions on the business. A company that is out of cash cannot operate effectively. The result is declines in liquidity, profitability, and growth, and possible insolvency and bankruptcy.

See also in this chapter: CASH OUTFLOWS EXCEEDING CASH INFLOWS, DELAYED CUSTOMER PAYMENTS, GOING BROKE WHILE-MAINTAINING PROFITS, INEFFICIENT USE OF CASH, *and* PAYING CASH TOO SOON.

PROBLEM
SURPLUS FUNDS

SYMPTOM

Funds in the cash account are increasing while current liabilities remain relatively unchanged.

CAUSE

Cash generated from operations, investments, and financing is not being reinvested.

ANALYSIS

Short-term liquidity ratios can be used to determine whether surplus funds are excessive and nonproductive. Cash flow from operations to current liabilities is an effective ratio for measuring surplus funds. A ratio that keeps increasing can indicate that cash inflows need to be invested. However, cash from investments and financing should also be taken into account.

REPAIR

Companies often accumulate cash they do not need for current needs or operations. This surplus cash can be invested in marketplace securities or used to reduce outstanding debt or increase compensating balances at banks. When investing excess funds, firms must weigh the safety of the security against its liquidity, maturity, and yield. A survey of cash managers from the Fortune 1000 list of large industrial firms found that Eurodollar CDs, commercial paper, domestic CDs, and repurchase agreements were the most popular vehicles for their short-term investing. Aggressive cash managers ranked yield first, security second, and maturity third. More conservative (moderate) managers ranked security above yield, with maturity still third.

PREVENTION TECHNIQUES

- Use surplus funds to enhance earnings.
- Formulate a formal investment policy detailing sources of surplus funds, types of eligible investments, parameters of investment size and duration, executives authorized to make investment decisions, transaction reporting requirements, and parties with whom transactions can be made.
- Pay down debt regularly from operating profits.

SPILLOVER EFFECTS

Having too much cash on hand can mean lost opportunities to earn a financial return. Acompany that does not use its cash efficiently can eventually expect problems with financing, reduced growth, and lower profits.

See also in this chapter: INEFFICIENT USE OF CASH.

PROBLEM
DELAYED CUSTOMER PAYMENTS

SYMPTOMS

- Inability to collect an unusually large number of accounts receivable.
- Customers paying later than usual and not in full.

CAUSES

- Clients are experiencing declining profitability and depressed economic conditions.
- The company's credit department is inexperienced and ineffective.

ANALYSIS

The longer the collection period on an account receivable, the higher the company's receivables investment and the higher its cost of extending credit to customers. The bad-debt ratio, which is the portion of accounts receivables that is never collected, is one general measure of the potential for debts to go bad. The higher the ratio, the greater the cost of extending credit.

REPAIR

- Offer cash discounts to customers for early payment. This will speed up the collection of accounts receivable and thus reduce the company's receivables investment and associated costs. Offsetting these savings is the cost of the discounts that are taken, so implement a discount policy only if the return on funds obtained from early collection is greater than the cost of the discount.
- Reduce the delay in receiving customer payments by:

  — Sending notices or letters requesting payment of the past-due amount.
  — Telephoning or visiting the customer.
  — Employing a collection agency.
  — Taking legal action.
- Refuse to make new shipments until all past-due receivables are paid.
- Send coded return envelopes or custom preaddressed stamped envelopes with invoices.
- Send bills to customers when the order is shipped. The sooner a bill is received, the faster it will be paid.
- Correct invoice errors immediately. A customer will not pay a bill until it is correct.
- Require deposits on large or custom orders, or require and bill for progress payments as the work progresses.
- Set up a system to handle seasonal peak loads to avoid invoicing delays.
- Use COD terms for marginal customers.
- Charge interest on accounts receivable that are past due. If the customer has a financial problem, ask for a postdated check.
- Have customers use electronic funds transfer (EFT). With EFT, a fund transfer is credited to your bank account the same day it is charged to the customer’s account. As a result, the payment float disappears, because funds are instantly available. Because it is a paperless transaction, fewer receipts are lost or stolen.
- Use customer credit cards, which are automatically validated at the retail store.

PREVENTION TECHNIQUES

To enjoy the benefits of expeditious check clearance at low cost, institute a lockbox system. Under this system, regional collection offices (such as a post of flee box or private mail box) are set up. Customers are asked to send their checks to the box in their geographic region, where a local bank picks up the checks for immediate deposit. The receiving bank remits to the company a list of checks received by account, a daily total, and any remittance documents. A returned-check document in the form of a paper or card readable by an optical character recognition device gives the business earlier notification of bad checks.

Before choosing this option, the corporation should determine the average dollar amount of checks received, the cost of clerical operations eliminated, and the interest earned because of the reduction in mail float days. Because per-item processing cost is usually significant, a lockbox is most advantageous for low-volume, high-dollar collections, but as technological advances lower the cost, the system is becoming increasingly available to small businesses with high-volume low-dollar receipts.

Cash may also come in faster if customers have given the company permission to automatically charge their accounts. This is referred to as a preauthorized debit (PAD). PADs save a company the costs of processing invoices and payments. They work well for repeated consistent charges at regular time intervals.

Lastly, through the use of debit cards at an automatic teller machine (ATM), funds may be transferred electronically from the customer's account to the account of the small business.

SPILLOVER EFFECTS

A delay in receiving customer payments may create a cash flow problem because the company is not receiving the funds it needs to go on operating. Because the firm also loses a return on the delayed cash since it cannot invest the money, profitability will be adversely affected. In the extreme case, if the company does not receive needed cash, it may risk insolvency and failure.

See also in this chapter: CASH OUTFLOWS EXCEEDING CASH INFLOWS, INEFFICIENT USE OF CASH, *and* INADEQUATE CASH POSITION.

PROBLEM
PAYING OUT CASH TOO SOON

SYMPTOMS

- Poor cash position.
- Impaired credit rating.
- Making full payments on accounts.

CAUSES

- Poor cash management.
- Improper cash analysis and poor decision-making.
- Lack of standardized payment procedures.
- Failure to use the most up-to-date cash planning, and computer software and cash models.

ANALYSIS

The savings in delaying cash payment should be computed. The business may earn a useful return on the cash by holding it longer.

Example: Every two weeks the company issues checks to cover payroll that average $500,000 and take three days to clear. The CFO wants to find out how much money can be saved annually if the transfer of funds from an account that pays 0.0384 percent per day (an annual rate of 14 percent) is delayed for three days.

$500,000 x (0.000384 x 3) = $576.

Savings per year = $576 x 26 payrolls per year = $14,976.

Cash models should be used in cash management to minimize the sum of the fixed costs of transactions and the opportunity cost of holding cash balances.

REPAIR

- Never pay vendors early.
- Take longer to pay tolerant creditors as long as there is no finance charge and no impairment of credit.
- Decide who should be paid first and who last.
- Deposit funds into checking and payroll accounts only when checks are expected to clear. Many full-service banks that offer customers consulting services point out structural defects in the Federal Reserve and other collection systems that allow a business to extend the payment period.
- Make partial payments or postdate checks, or both.
- Ask for more information about an invoice before paying it.
- Mail payments late in the day or on Fridays.
- Use cash models for cash management.

PREVENTION TECHNIQUES

- Centralize the payables operation so that debt may be paid at the time most beneficial to the company.
- Use payment drafts, in which payment is not made on demand. Instead, the draft is presented for collection to the bank, which in turn goes to the issuer to accept it. Adraft may be used to allow for inspection before payment. When approved, the business deposits the funds. As a result, a smaller checking balance is required.
- Draw checks on remote banks.
- Mail from post offices with limited service or where mail has to go through numerous handling points. Checks can also be mailed from a location far removed from both the payee and payer banks.
- Use probability analysis to determine the expected date for checks to clear.
- Use a charge account to lengthen the time between buying goods and paying for them.
- Avoid prepaid expenses.
- Use noncash consideration, such as stock or notes, for compensation.
- Delay the frequency of payments to employees. Avoid giving cash advances for travel and entertainment or loans. Have a monthly rather than a weekly payroll. When finances are really tight, ask employees to take furloughs (e.g., two weeks off without pay) or give up a current paycheck to be paid at a later date.
- Pay commissions on sales when receivables are collected rather than when the sales are made.
- Use barter arrangements to avoid cash payments.
- Use cash flow software for day-to-day cash management, planning and analyzing cash flows, and determining payment dates.

SPILLOVER EFFECTS

The result of paying early is less cash on hand, less liquidity, a lower rate of return earned, and possibly higher financing costs. This may result in cash problems and a decline in profits.

See also in this chapter: CASH OUTFLOWS EXCEEDING CASH INFLOWS, DELAYED CUSTOMER PAYMENTS, INEFFICIENT USE OF CASH, *and* INADEQUATE CASH POSITION.

PROBLEM
CASH OUTFLOWS EXCEEDING CASH INFLOWS

SYMPTOMS

- Declining profits.
- Cash flow problems.
- Increased use of credit lines.
- Failure to pay bills or debt on time.

CAUSES

- Slow collections from customers.
- Low profit margin.
- Paying bills before their due date.
- Failure to expedite the collection of accounts receivable.
- Failure to reduce the lag between when customers pay their bills and when the checks are converted into cash.
- Overspending.
- Excessive debt.
- Failure to fully assess a customer's credit risk.

ANALYSIS

To effectively control cash flows, management must understand the basic difference between accounting profits shown on the bottom line of the income statement and economic profits (cash flows).

REPAIR

- Speed up collections by offering discounts and relaxing credit standards—but beware of creating more bad debts.
- Stretch payables as long as possible.
- Sell off assets to reduce debt.
- Pay expenses and other obligations only at their due date.
- Buy used assets rather than new ones.

PREVENTION TECHNIQUES

- Establish a line of credit with a bank.
- Actively manage receivables.

- Spend more time on efficient management of accounts payable.
- Use cash management models that can help determine the optimal cash that a company should have available for operations. *(See above*, PAYING CASH TOO SOON, for a full discussion of cash models.)

SPILLOVER EFFECTS

When its cash outflows exceed inflows, a company may have to finance expansion at premium borrowing rates, thereby reducing profit margins. This often leads to a sacrifice of quality because the business can no longer afford extra staff, or necessary expenditures. Inadequate cash flow will also result in lower credit ratings, decline in the market price of the company's stocks and bonds, inability to make profitable investments at the right time, and, in severe cases, insolvency and bankruptcy.

See also in this chapter: DELAYED CUSTOMER PAYMENTS, GOING BROKE WHILE MAINTAINING PROFITS, INADEQUATE CASH POSITION, *and* INEFFICIENT USE OF CASH.

PROBLEM
GOING BROKE WHILE MAINTAINING PROFITS

SYMPTOMS

- The company shows a profit but has no cash.
- Management mistakes accounts receivable for cash and makes daily payments for inventory, payroll, and taxes.
- The company fails to budget properly for capital expenditures and emergencies.

CAUSES

- Failure to institute an effective cash management system.
- Failure to write a realistic business plan that estimates financial needs, identifies corporate strengths and weaknesses, and sets profit goals and policies.
- Overspending and excessive debt.

ANALYSIS

The company must have a plan for cash inflows and outflows. It must also institute an effective cash collection policy.

REPAIR

- Study the cash flow cycle of the business.
- Prepare a monthly or quarterly cash budget forecast.
- Calculate current ratios to determine whether they are within the normal industry range.
- Bill credit sales promptly and maintain realistic credit policies.
- Use COD terms for chronic slow payers.

PREVENTION TECHNIQUES

- Establish both a lockbox system and regional offices for rapid processing of checks that originate at distant points.
- Obtain working capital from suppliers of merchandise, materials, and equipment by buying from suppliers who do not demand immediate payment.
- Use domestic letters of credit, whereby a bank makes a written commitment on behalf of a buyer to pay the seller for goods shipped.
- Lease an asset instead of purchasing it.
- Pay overtime to reduce the need to hire additional workers.
- Hire temporary help for peak periods to reduce compensation costs in a labor-intensive business.

SPILLOVER EFFECTS

If financing is available at all, a company with a deficient cash position will have to pay higher interest rates on loans and accept restrictions on the business. Because a company that is out of cash cannot operate effectively, its profitability will decline. Management may face a net operating loss for a given period even if cash flow has increased.

See also in this chapter: CASH OUTFLOWS EXCEEDING CASH INFLOWS, DELAYED CUSTOMER PAYMENTS, *and* INADEQUATE CASH POSITION.

PROBLEM
INEFFICIENT USE OF CASH

SYMPTOMS

- The company does not have enough cash to meet current debt obligations.
- There is more cash on hand than is necessary to cover operations, but it is not generating investment income.
- The profit margin is falling.

CAUSES

- Inefficient collection procedures.
- Poor disbursement policies.
- Buying too much inventory or too many capital assets.
- Inefficient use of tax deferral techniques.
- Overinvesting in short- or long-term assets.

ANALYSIS

A company's ability to sell what it produces and collect receivables is fundamental to its success. A cash flow statement is the best tool for measuring cash inflows and outflows. It outlines cash flows from operating, investing, and financing activities and shows the net change in cash and cash equivalents for each period.

Use comparative analysis to identify important ratios that reveal the correct collection time and the correct average inventory holding period for the business. (*See Chapter 5*: INADEQUATE LIQUIDITY *and* INADEQUATE WORKING CAPITAL.) As you study these ratios, it is important to compare them to industry norms.

Example: A company has collected the following data on average collection periods and average accounts receivable investments for two periods.

	Current	Prior
Average collection time (in days)	55	44
Average accounts receivable investment (per $1,000 in daily sales)	$55,000	$44,000

Measured against the previous collection period, in the current period there is an 11-day increase in the average collection period. This produces an $11,000 decrease in the company's cash capability for each $1,000 in daily sales. Management must also compare the company's collection time with that of competitors.

REPAIR

- Avoid expensive overinvestment in fixed assets.
- Make a reliable forecast of projected cash inflows and outflows and of their timing.
- Use a zero balance account (ZBA) to speed up cash inflows and slow down cash outflows. In a ZBA, a master account is set up to receive all checks coming into the system. As checks clear through the ZBA, funds are transferred to other accounts from the master account. Thus funds are transferred on a daily basis to cover checks that have cleared, leaving a zero balance at the end of the day.
- Have customers mail their payments to nearby collection centers to minimize mail delay.

PREVENTION TECHNIQUES

- Use billing and collection procedures that reduce the time between shipping, invoicing, and second notices.
- Take advantage of vendor discount policies for early payment.
- Use cash flow software to help prepare budgets and cash flow forecasts and to time payables.
- Anticipate the total cash capability necessary for an investment in fixed assets.

SPILLOVER EFFECTS

When cash outflows exceed cash inflows, a company may be unable to pay debts as they become due. It will then face strict loan terms from banks and stringent credit terms from vendors. Inability to pay cash dividends might affect the price of the company's stock and its ability to raise additional capital. Because a company with minimal cash availability cannot operate effectively, its profitability will decline, perhaps leading to insolvency and then bankruptcy.

See also in this chapter: CASH OUTFLOWS EXCEEDING CASH INFLOWS, DELAYED CUSTOMER PAYMENTS, INADEQUATE CASH POSITION, INADEQUATE LIQUIDITY, PAYING CASH TOO SOON, *and* SURPLUS FUNDS.

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