## *The Magic of Managing the Balance Sheet*

We've mentioned the phrase *managing the balance sheet* a couple of times in this book. Right now, we want to go into greater detail about how to do it. The reason? Astute management of the balance sheet is like financial magic. It allows you to improve your company's financial performance even without boosting sales or lowering costs. Better balance sheet management makes a business more efficient at converting inputs to outputs and ultimately to cash. It speeds up the *cash conversion cycle*, a concept that we'll take up later in this part. Companies that can generate more cash in less time have greater freedom of action; they aren't so dependent on outside investors or lenders.

If your company is big enough to have a CFO and a finance department, they will have day-to-day responsibility for managing most of the balance sheet. They'll help you figure out how much to borrow and on what terms, help you line up equity investment when necessary, and generally keep an eye on the company's overall assets and liabilities. But any business owner, with or (especially) without a finance department, should understand the key concepts involved in managing the balance sheet. In particular, you need to understand the idea of managing *working capital.* Learn to help your people manage working capital better, and you will have a powerful effect on both your company's profitability and its cash position.

# THE ELEMENTS OF WORKING CAPITAL

*Working capital* is a category of resources that includes cash, inventory, and receivables, minus whatever a company owes in the short term. It comes straight from the balance sheet, and it's often calculated according to the following formula:

working capital = current assets – current liabilities

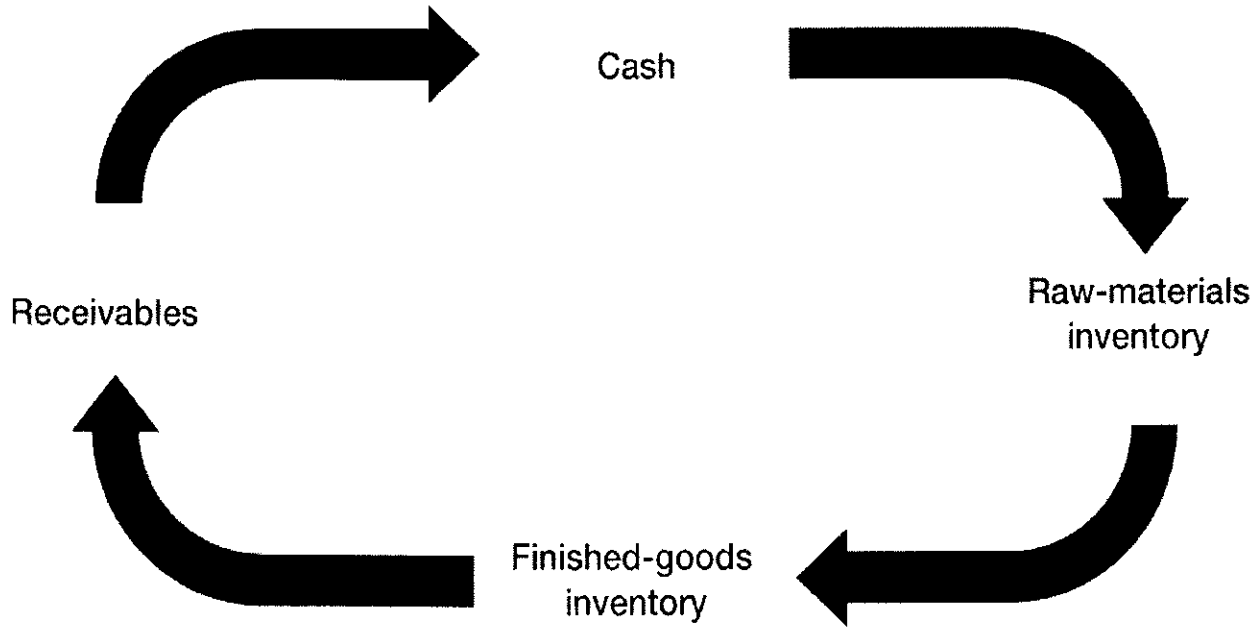
Of course, this equation can be broken down further. Current assets, as we have seen, includes items such as cash, receivables, and inventory. Current liabilities includes payables and other short-term obligations. But these aren't isolated line items on the balance sheet; they represent different stages of the production cycle and different forms of working capital.

To understand this, imagine a small manufacturing company. Every production cycle begins with cash, which is the first component of working capital. The company takes the cash and buys some raw materials. That creates raw-materials inventory, a second component of working capital. Then the raw materials are used in production, creating work-in-process inventory and eventually finished-goods inventory, also part of the "inventory" component of working capital. Finally, the company sells the goods to customers, creating receivables, which are the third and last component of working capital (figure 25-1). In a service business, the cycle is similar but simpler. For example, our own company—the Business Literacy Institute—is partly a training business. Its operating cycle involves the time required to go from the initial development of training materials, to the completion of training classes, and finally to the collection of the bill. The more efficient we are in finishing a project and following up on collections, the healthier our profitability and cash flow will be. In fact, the best way to make money in a service business is to provide the service quickly and well and then to collect as soon as possible. Throughout this cycle, the *form* taken by working capital changes. But the *amount* doesn't change unless more cash enters the system—for example, from loans or from equity investments.

Of course, if the company buys on credit, then some of the cash remains intact—but a corresponding "payables" line is created on the liabilities side of the balance sheet. So that must be deducted from the three other components to get an accurate picture of the company's working capital.

*FIGURE 25-1*

## Working capital and the production cycle




Overall, how much working capital is appropriate for a company? This question doesn't have an easy answer. Every company needs enough cash and inventory to do its job. The larger it is and the faster it is growing, the more working capital it is likely to need. But the real challenge is to use working capital efficiently. The three working capital accounts that you and your employees can affect day in and day out are accounts receivable, inventory, and (to a lesser extent) accounts payable. We'll take up each one in turn.

Before we do, though, it's worth asking once again how much art is involved in all these calculations. In this case the best answer might be "some." Cash is a hard number, not easily subject to manipulation. Receivables and payables are relatively hard as well. Inventory isn't quite so hard. Various accounting techniques and assumptions allow a company to value inventory in different ways. So a company's calculation of working capital will depend to an extent on the rules its accountant follows. Still, you can generally assume that working capital figures aren't subject to as much discretion and judgment as many of the numbers we learned about earlier.

## *Your Balance Sheet Levers*

Most companies use some of their cash to finance customers' purchase of products or services. That's the "accounts receivable" line on the balance sheet—the amount of money customers owe at a given point in time, based on the value of what they have purchased before that date.

The key ratio that measures accounts receivable, as we saw in part 5, is days sales outstanding, or DSO—that is, the average number of days it takes to collect on these receivables. *The longer a company's DSO, the more working capital is required to run the business.* Customers have more of the company's cash in the form of products or services not yet paid for, so that cash isn't available to buy inventory, deliver more services, and so on. Conversely, the shorter a company's DSO, the less working capital is required to run the business. It follows that the more people who understand DSO and work to bring it down, the more cash the company will have at its disposal.

# MANAGING DSO

The first step in managing DSO is to understand what it is and in which direction it has been heading. If it's higher than it ought to be, and particularly if it's trending upward (which it nearly always seems to be), you need to begin asking questions.

Ask your operations manager, for example, whether there are any problems with the products or services that might make customers less willing to pay their bills. Is the company selling what customers want and expect? Is there a problem with delivery? Quality problems and late deliveries often provoke late payment, just because customers are not pleased with the products they're receiving and decide that they will take their own sweet time about payment. The people in production and shipping thus have an effect on receivables as well. In a service company, you need to be asking the same questions of the people who are out delivering the service. If service customers aren't satisfied with what they're getting, they too will take their time about paying.

Ask your customer-facing managers and employees—those in sales and customer service—a similar set of questions. Are our customers financially healthy? What is the standard in their industry for paying bills? Salespeople typically have the first contact with a customer, so it is up to them to flag any concerns about the customer's financial health. Once the sale is made, customer-service reps need to pick up the ball and learn what's going on. What's happening at the customer's shop? Are employees working overtime? Is the company laying people off? Meanwhile, salespeople need to work with the credit manager and customer service so that everybody understands the terms up front and will notice when a customer is late. At one company we worked with, the delivery people knew the most about customers' situations because they were at their facilities every day. They would alert sales and accounting if there seemed to be issues cropping up in a customer's business.

Chances are you have someone other than yourself reviewing the credit of customers and prospective customers. That person needs to ask whether the terms offered are good for the company and whether they fit the credit histories of the customers. He or she also needs to make judgments—maybe in consultation with you—about whether the company is giving credit too easily or whether it is too tough in its credit policies. There's always a trade-off between increasing sales on the one hand and issuing credit to poorer credit risks on the other. You and your sales or credit manager need to set the precise terms you're willing to offer. Is net thirty days satisfactory—or should you allow net sixty? You need to determine strategies such as offering discounts for early pay. For example, "2/10 net 30" means that customers get a discount of 2 percent if they pay their bill in ten days and no discount if they wait thirty days. Sometimes a 1 percent or 2 percent discount can help a struggling company collect its receivables and thereby lower its DSO—but of course, it does so by eating into profitability.

We know of a small company that has a simple, homegrown approach to the issue of giving credit to customers. The company has identified the traits it wants in its customers and has even named its ideal customer Bob. Bob's qualities include the following:

- He works for a large company.

- His company is known for paying its bills on time.
- He can maintain and understand the product provided (this company makes complex technology-intensive products).
- He is looking for an ongoing relationship.

If a new customer meets these criteria, it will get credit from this small manufacturer. Otherwise, it won't. As a result of this policy, the company has been able to keep its DSO quite low and to grow without additional equity investment.

All these decisions greatly affect accounts receivable and thus working capital. And the fact is, they can have a huge impact. Reducing DSO even by one day can save a company a lot of money. For example, check back to the DSO calculation in chapter 22, and you can calculate that one day of sales in our sample company is just over $24,000. Reducing DSO from fifty-five days to fifty-four in this company would thus increase cash by $24,000. That's cash that can be used for other things in the business.

# MANAGING INVENTORY

Many business owners these days are focusing on inventory. They work to reduce inventory wherever possible. They are learning concepts such as *lean manufacturing*, *just-in-time inventory management*, and *economic order quantity*. The reason for all this attention is exactly what we're talking about here. Managing inventory efficiently reduces working capital requirements by freeing up large amounts of cash.

The challenge for inventory management, of course, isn't to reduce inventory to zero, which would probably leave a lot of customers unsatisfied. The challenge is to reduce it to a minimum level while still ensuring that every raw material and every part will be available when needed and that every product will be ready for sale when a customer wants it. A manufacturer needs to be constantly ordering raw materials, making things, and holding those finished products for delivery to customers. Wholesalers and retailers need to replenish their stocks regularly to avoid the dreaded stockout—an item that isn't available when a customer wants it. Yet every item in inventory can be regarded as frozen cash, which is to say cash that the company cannot use for other purposes. Exactly how much inventory is required to satisfy customers while minimizing that frozen cash, well, that's the million-dollar question (and the reason for all that attention being paid to inventory).

The techniques for managing inventory are beyond the scope of this book. But we do want to emphasize that many different people in your company affect inventory levels, which means that all of them can have an impact on reducing working capital requirements. For example:

- Salespeople love to tell customers they can have exactly what they want. ("Have it *your* way," as the old Burger King jingle put it.) Custom paint job? No problem. Bells and whistles? No problem. Every variation, however, requires a little more inventory, meaning a little more cash. Obviously, customers must be satisfied. But that commonsense requirement has to be balanced against the fact that inventory costs money. The more that salespeople can sell standard products with limited variations, the less inventory their company will have to carry.
- Engineers love those same bells and whistles. In fact, they're constantly working to improve their company's products, replacing version 2.54 with version 2.55 and so on. Again, this is a laudable business objective, but it's one that has to be balanced against inventory requirements. A proliferation of product versions adds to frozen cash and puts a burden on inventory management. When a product line is kept simple with a few easily interchangeable options, the amount of inventory needed is likely to be less and therefore less cash is tied up.
- Production departments greatly affect inventory. For instance, what's the percentage of machine downtime? Frequent breakdowns require the company to carry more work-in-process inventory and more finished-goods inventory. And what's the average time between changeovers? Decisions about how much to build of a particular part have an enormous impact on inventory requirements. Even the layout of a plant affects inventory: an efficiently designed production flow in an efficient plant minimizes the need for inventory.

Along these lines, it's worth noting that many U.S. plants operate on a principle that eats up tremendous amounts of working capital. When business is slow, they nevertheless keep on churning out product with the goal of maintaining factory efficiency. Factory owners and plant managers focus on keeping unit costs down, often because they learned that goal early in their careers and no longer question it.

When business is good, the goal makes perfect sense: keeping unit costs down is simply a way of managing all the costs of production in an efficient manner. (This is the old approach of focusing only on the income statement, which is fine as far as it goes.) When demand is slow, however, the owner or plant manager must consider the company's cash as well as its unit costs. A plant that continues to turn out product in these circumstances is just creating more inventory that will sit on a shelf taking up space and cash. Coming to work and reading a book might be better than building product that is not ready to be sold.

How much can a company save through astute inventory management? Look again at our sample company: cutting just one day out of the DII number—reducing it from seventy-four days to seventy-three—would increase cash by nearly $19,000. Any company with inventory can save significant amounts of money, and thereby reduce working capital requirements, just by making modest improvements in its inventory management.

## *Homing In on Cash Conversion*

In this chapter we'll take up the cash conversion cycle, which measures how effectively a company collects its cash. But there's one little wrinkle we have to consider first—how fast a company decides to pay the money it owes its vendors.

Accounts payable is a tough number to get right. It's an area where finance meets philosophy. Financial considerations alone would encourage business owners to maximize days payable outstanding (DPO), thus conserving their company's cash. A change in this ratio is as powerful as a change in the other ratios we've been discussing. For instance, in the imaginary company we've looked at in many chapters now, if managers increased DPO by just one day, they would add about $19,000 to the company's cash balance.

But there are other considerations, as we mentioned in chapter 22. What kind of a relationship do you want with your vendors? What kind of reputation do you want? In practical terms, how much leverage do you have with your vendors—will they even continue doing business with your company if it is a late payer? Another practical consideration is the Dun & Bradstreet rating. D&B bases its scores, in part, on a company's payment history. An organization that consistently pays late may find that it has trouble getting a loan later on.

A personal story may illustrate the point. Joe's company, Setpoint, never lets an invoice go beyond thirty days. The company's philosophy is that slow payments simply aren't good business. Where did that philosophy come from? When Joe's partners, both engineers, started Setpoint, they had recently left another company. There, they had been project managers, designing custom products for the company's customers. But when they sent their designs out to be fabricated, nobody would build parts for them. When they asked why not, they found that their employer regularly took more than one hundred days to pay its bills. In effect, the engineers had to become negotiators just to get their projects built! When they started their own business, they vowed they would never put their new company's engineers in that position. While the philosophy puts constraints on cash flow, Setpoint's leaders believe that it positively affects the company's reputation and relationship with its vendors—and in the long term helps Setpoint build a stronger community of businesses around itself.

In general, if you notice that your company's DPO is climbing—and particularly if it is higher than your DSO—you might want to start asking a few questions. After all, the success of the company probably depends on good relationships with vendors, and you don't want to mess up those relationships unnecessarily.

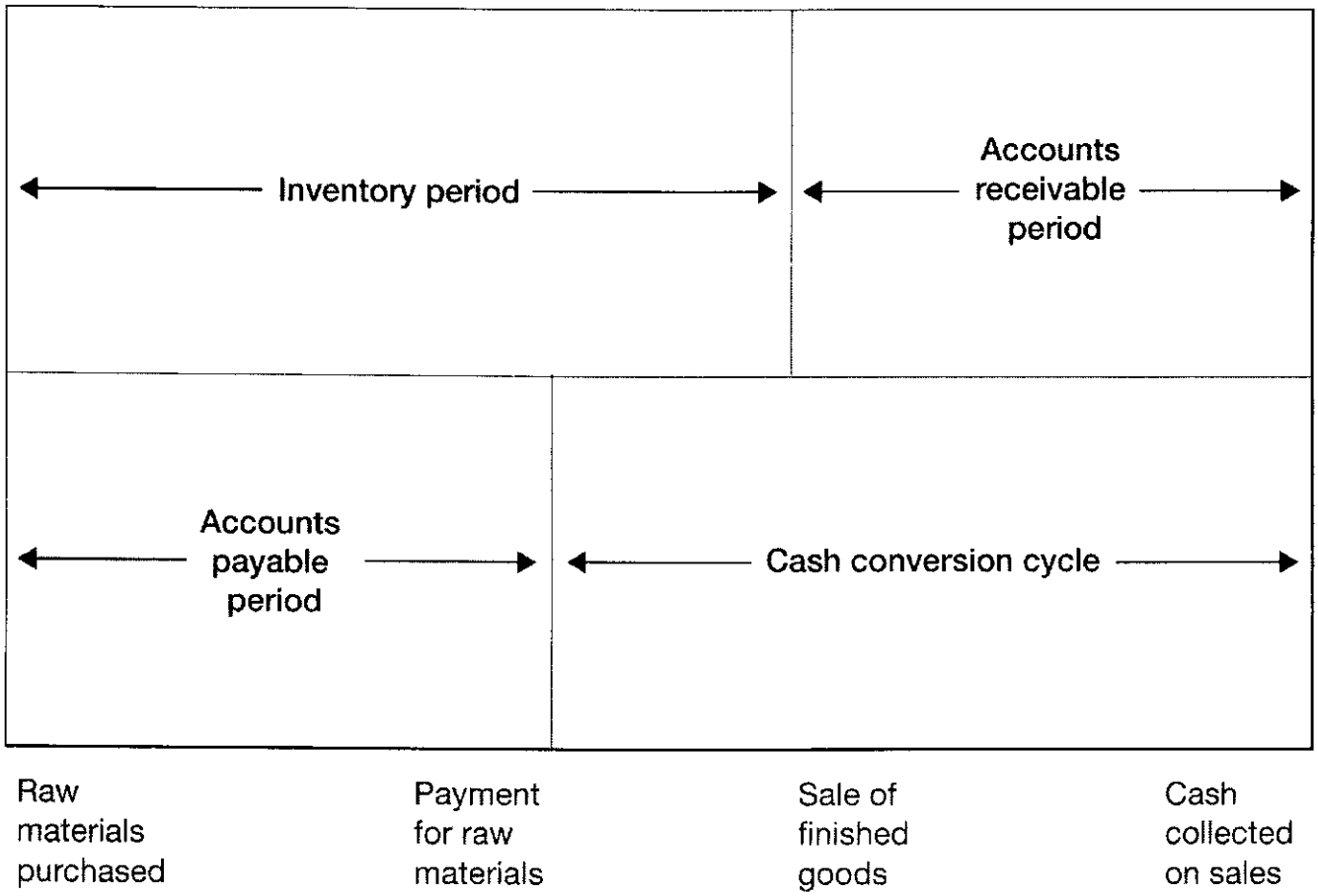
# THE CASH CONVERSION CYCLE

Another way to understand working capital is to study the cash conversion cycle. It's essentially a timeline relating the stages of production (the operating cycle) to the company's investment in working capital. The timeline has multiple levels, and you can see how the levels are linked in figure 27-1. Understanding these levels and their measures provides a powerful way of understanding your business and should help you make financially intelligent decisions.

Starting at the left, the company purchases raw materials. That begins the accounts payable period and the inventory period. In the next phase, the company has to pay for those raw materials. That begins the cash conversion cycle itself—that is, the cash has now been paid out, and the job is to see how fast it can come back. Yet the company is still in its inventory period; it hasn't actually sold any finished goods yet.

*FIGURE 27-1*

## The operating cycle




Eventually, the company does sell its finished goods, ending the inventory period. But it is just entering the accounts receivable period; it still hasn't received any cash. Finally, it does collect the cash on its sales, which ends both the accounts receivable period and the cash conversion cycle.

Why is this important? Because with it, we can determine how many days the cycle takes and then understand how many days a company's cash is tied up. That's an important number for company owners to know. Armed with the number, entrepreneurs may be able to find ways to "save" lots of cash for their company. To figure it out, use the following formula:

$$\text{cash conversion cycle} = \text{DSO} + \text{DII} - \text{DPO}$$

In other words, take days sales outstanding, add days in inventory, and subtract the number of days payable outstanding. That tells you, in days, how fast your company recovers its cash, from the moment it pays its payables to the moment it collects its receivables.

The cash conversion cycle also gives you a way of calculating how much cash it takes to finance the business: you just take sales per day and multiply it by the number of days in the cash conversion cycle. Here are the calculations for our sample company:

$$54 \text{ days} + 74 \text{ days} - 55 \text{ days} = 73 \text{ days}$$

$$73 \text{ days} \times \$24{,}136 \text{ sales/day} = \$1{,}761{,}928$$

This business requires working capital of around $1.8 million just to finance its operations. That isn't unusual for a growing company. Even small companies require a lot of working capital relative to their sales if their cash conversion cycle is as long as sixty days.

Companies of any size can get themselves into trouble on this score. Tyco International—mentioned earlier in this book—was famous for acquiring six hundred companies in two years. All those acquisitions entailed a lot of challenges, but one serious challenge involved huge increases in the cash conversion cycle. The reason? Tyco often was acquiring companies in the same industry, and competing products were added to its product list. With several very similar products in inventory, the company couldn't move that inventory as fast as it once had. Inventory days began to spiral out of control, increasing in some parts of the business by more than ten days. In a multinational company with more than $30 billion in revenue, increases on that scale can deplete cash by several hundred million dollars. (This is an issue that Tyco has addressed in recent years by closing down the acquisition pipeline and focusing on the operations of the business.)

The cash conversion cycle can be shortened by all the techniques discussed in this part: decreasing DSO, decreasing inventory, and increasing DPO. Figure out what your company's cycle is and which direction it's heading in. You may want to discuss it with your managers. That might start a conversation that will result in a faster cash conversion cycle, lower working capital requirements, and more cash. That will benefit everybody in the business.