Financial Forecasting

Session 4

Financial Planning and Pro Forma Statements

Three important uses:

- Forecast the amount of external financing that will be required
- Evaluate the impact that changes in the operating plan have on the value of the firm
- Set appropriate targets for compensation plans

Steps in Financial Forecasting

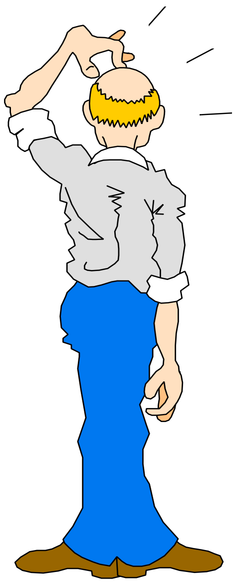
- Forecast sales
- Project the assets needed to support sales
- Project internally generated funds
- Project outside funds needed
- Decide how to raise funds
- See effects of plan on ratios and stock price

Budgets and the Organization

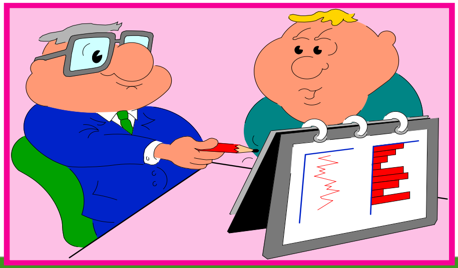
Budgets → Goals and objectives

A budget provides a comprehensive financial overview of planned company operations.

Benefits of Budgets



Compel managers to think ahead



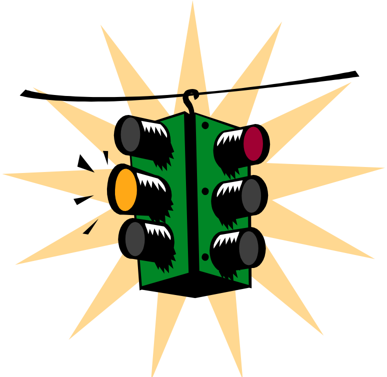
Provide an opportunity to reevaluate existing activities and evaluate new ones.

Aid managers in communicating objectives and coordinating actions across the organization.

Human Relations Problems

1. Low levels of participation in the budget process and lack of acceptance of responsibility for the final budget.
2. Incentives to lie and cheat in the budget process.
3. Difficulties in obtaining accurate sales forecasts.

Management should seek to create an environment where there is a true two-way flow of information.



Potential Problems in Implementing Budgets

Participative budgets are formulated with the active participation of all affected employees.

Message conveyed by the budget system may be misaligned with incentives provided by the compensation system.

Incentives to Lie and Cheat

Dysfunctional incentives lead managers to make poor decisions.

Lying can arise if the budget process creates incentives to bias the budget information.

Budgetary Slack (budget padding) is the overstatement or understatement of budgeted revenue to create a goal that is easier to achieve.

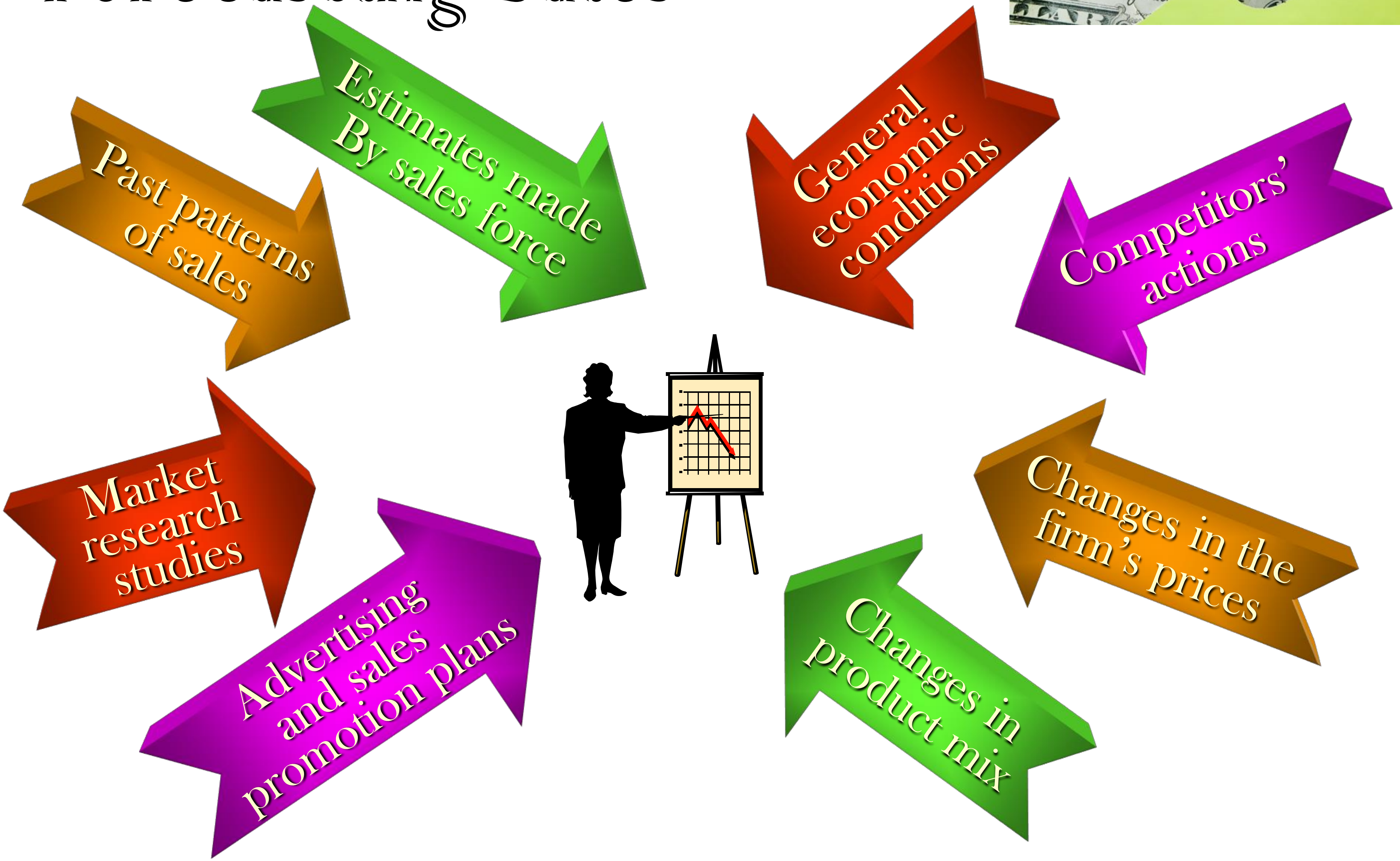
Sales Forecasting

A sales forecast is a prediction of sales under a given set of conditions.

Sales forecasts are usually prepared under the direction of the top sales executive.

The sales budget is the result of decisions to create Conditions that will generate a desired level of sales.

Factors to Consider When Forecasting Sales



Types of Budgets

Strategic plan

Long-range planning

Master budget

Capital budget

Continuous budget

Strategic Plan

The most forward-looking budget is the strategic plan, which sets the overall goals and objectives of the organization.

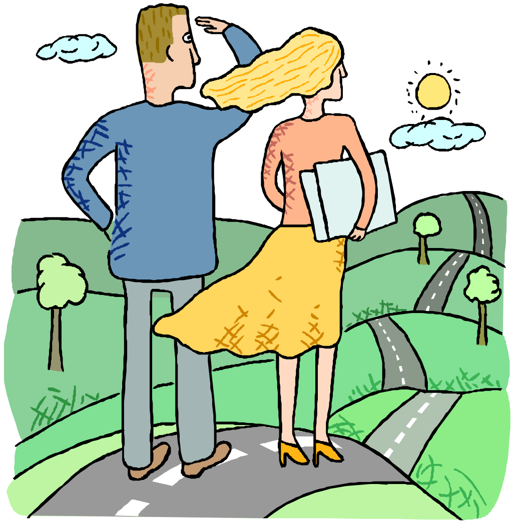
The strategic plan leads to long-range planning, which produces forecasted financial statements for five- to ten-year periods.

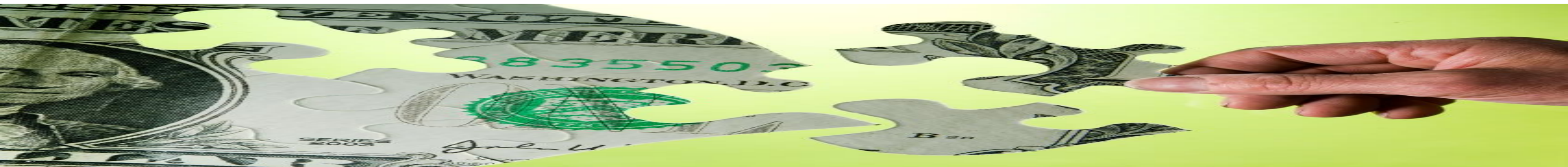
Long-range Plans

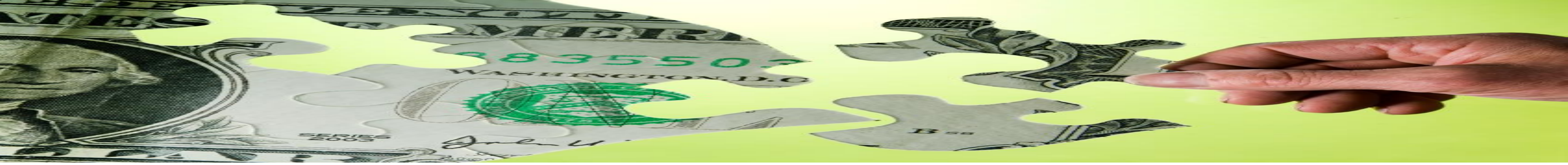
Long-range plans…

are coordinated with capital budgets, which detail the planned expenditures for facilities, equipment, new products, and other long-term investments.

Master budgets link to both long-range plans and short-term budgets.





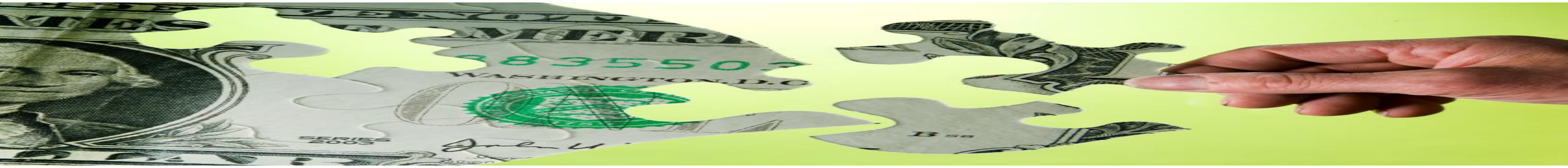


Master Budget

The master budget is a detailed and comprehensive analysis of the first year of the long-range plan. It summarizes the planned activities of all subunits of an organization.

- Sales
- Production
- Distribution
- Finance

Continuous Budget



Rolling budgets…

are a common form of master budgets that add a month in the future as the month just ended is dropped.

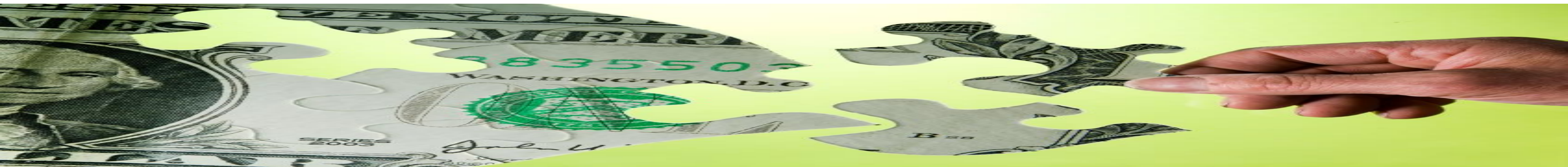
Master Budget

Operating budget (Profit plan). . .

Focuses on the Income Statement and supporting schedules or budgeted expenses.

Financial budget. . .

Focuses on the effects that the operating budget and other plans will have on cash balances.

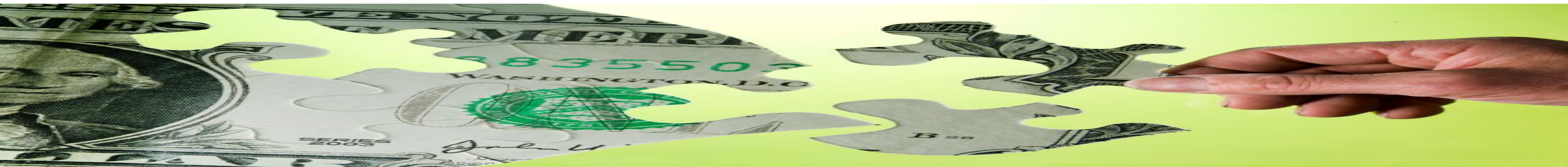


Steps in Preparing the Master Budget

1. Basic data

2. Operating budget

3. Financial budget



Steps in Preparing the Master Budget

The principal steps in preparing the master budget:

1. Basic data
   a. Sales budget
   b. Cash collections from customers
   c. Purchases and cost-of-goods sold budget
   d. Cash disbursements for purchases
   e. Operating expense budget
   f. Cash disbursements for operating expenses

Steps in Preparing the Master Budget

Operating Budget

2. Prepare budgeted income statement using basic data in step 1.

Financial Budget

3. Prepare forecasted financial statements:
   a. Capital budget
   b. Cash budget
   c. Budgeted Balance sheet

Operating Budget

Sales budget

Cash collections from customers

Purchases budget

Disbursements for purchases

Operating expenses budget

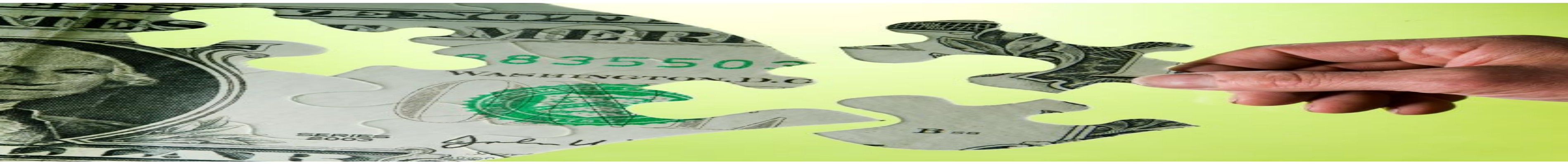
Disbursements for operating expenses

Cash Collections

It is easiest to prepare budgeted cash collections at the same time as the sales budget.

Cash collections include the current month's cash sales plus the previous month's credit sales.

Purchases Budget and Cash Disbursements



Budgeted purchases
= Desired ending inventory
+ Cost of goods sold
– Beginning inventory

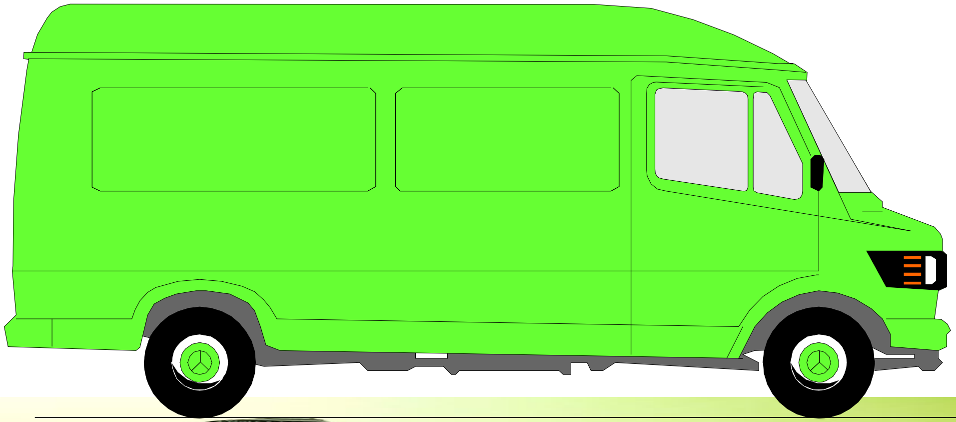
Disbursements could include 50% of the current month's purchases and 50% of the Previous month's purchases.

Operating Expense Budget

The budgeting of operating expenses depends on several factors.

Month-to-month changes in sales volume and other cost-driver activities directly influence many operating expenses.

Expenses driven by sales volume include sales commissions and many delivery expenses.



Operating Expense Budget

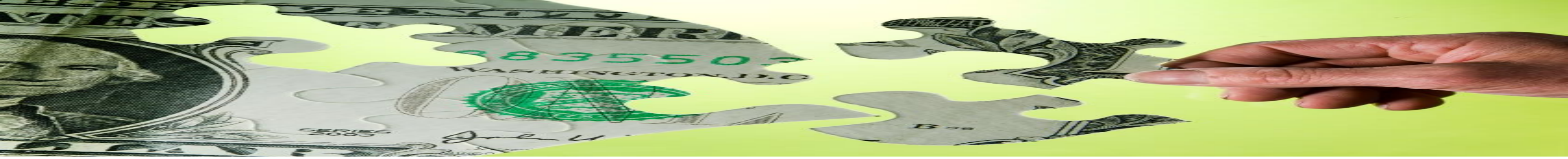
Other expenses are not influenced by sales or other cost-driver activity and are regarded as fixed, within appropriate relevant ranges.

Rent

Depreciation

Insurance

Salaries



Operating Expense Disbursements

Disbursements for operating expenses are based on the operating expense budget.

Disbursements may include 50% of last month's and this month's wages and commissions plus miscellaneous and rent expenses.

The total of these disbursements is then used in preparing the cash budget.

Budgeted Income Statement

The income statement will be complete after addition of the interest expense, which is computed after the cash budget has been prepared.

Budgeted income from operations is often a benchmark for judging management performance.

Financial Budget

The cash budget is a statement of planned cash receipts and disbursements.

The Cash budget contains these major sections:

- available cash balance
- net cash receipts and disbursements
- financing

Cash Budget

Available cash balance
= Beginning cash balance
– Minimum cash balance desired.

Cash receipts depend on collections from customers' accounts receivable, cash sales, and on other operating income sources.

Cash Budget

Cash disbursements for purchases depend on the credit terms extended by suppliers and the bill-paying habits of the buyer.

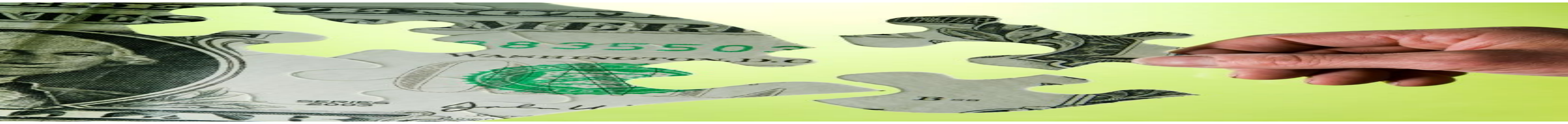
Payroll depends on wage, salary, and commission terms and on payroll dates.

Cash Budget

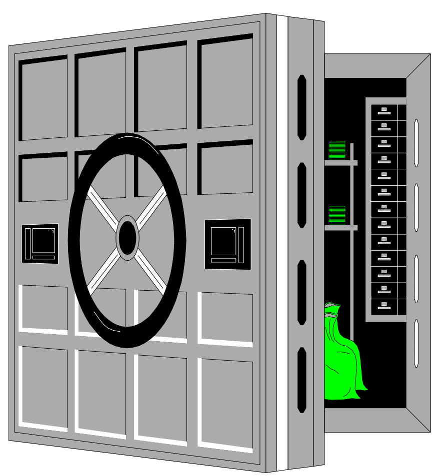
Disbursements for some costs and expenses depend on contractual terms for installment payments, mortgage payments, rents, leases, and miscellaneous items.

Other disbursements include outlays for fixed assets, long-term investments, dividends, and the like.

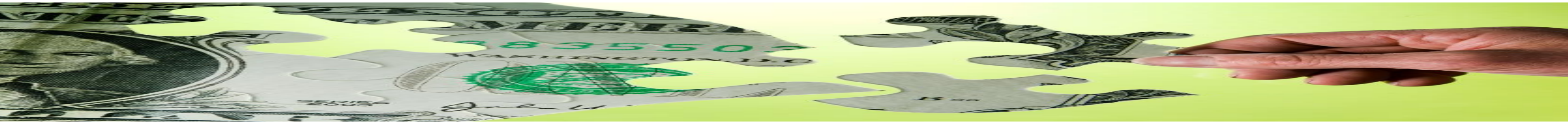
Cash Budget



Management determines the minimum cash balance desired depending on the nature of the business and credit arrangements.



Cash Budget

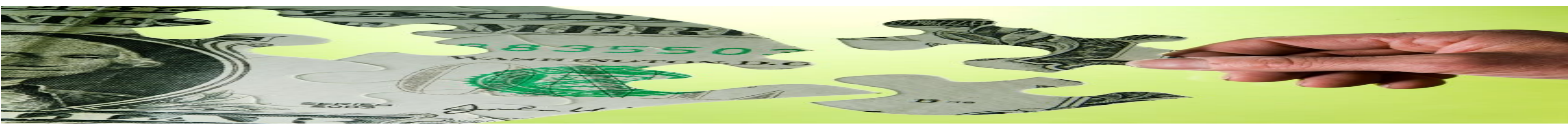


Financing requirements depend on how the total cash available compares with the total cash needed.

Needs include the disbursements plus the desired ending cash balance.

Cash Budget

Ending cash balance
= Beginning cash balance
+ Receipts – Disbursements
+ Cash from financing

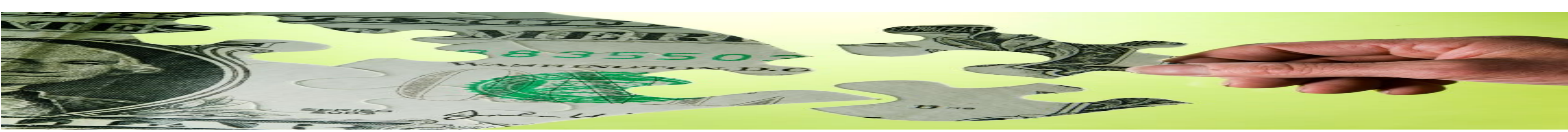


The cash from financing can be either positive (borrowing) or negative (repayment).

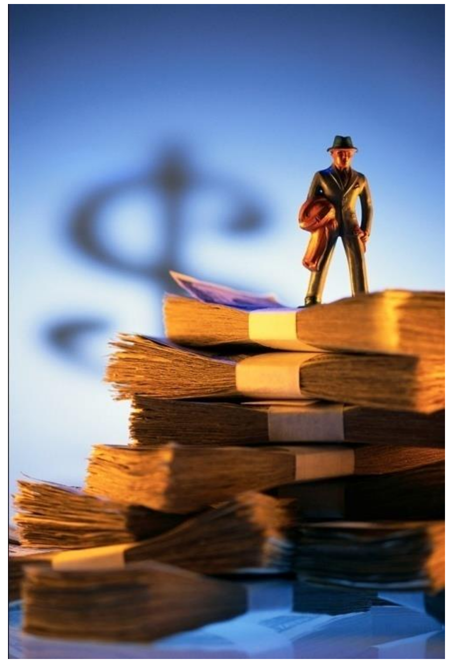
Budgeted Balance Sheet

The final step in preparing the master budget is to construct the budgeted balance sheet that projects each balance sheet item in accordance with the business plan.

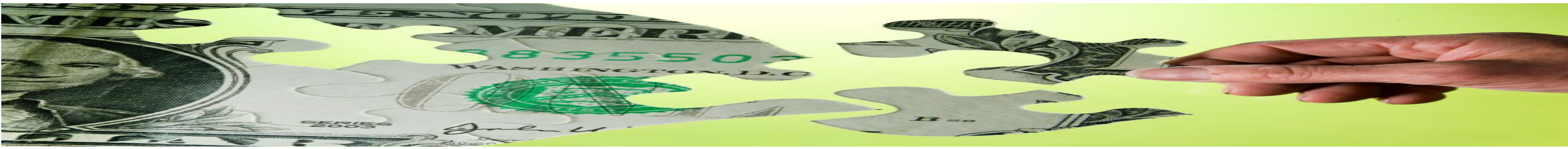
Management then considers all the major financial statements as a basis for changing the course of events.



Managing Cash Flow

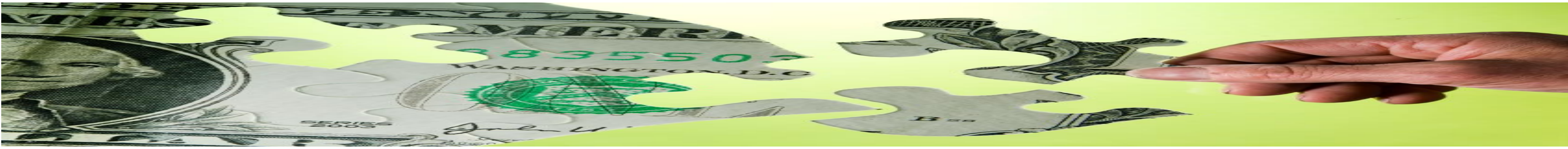


Cash Management



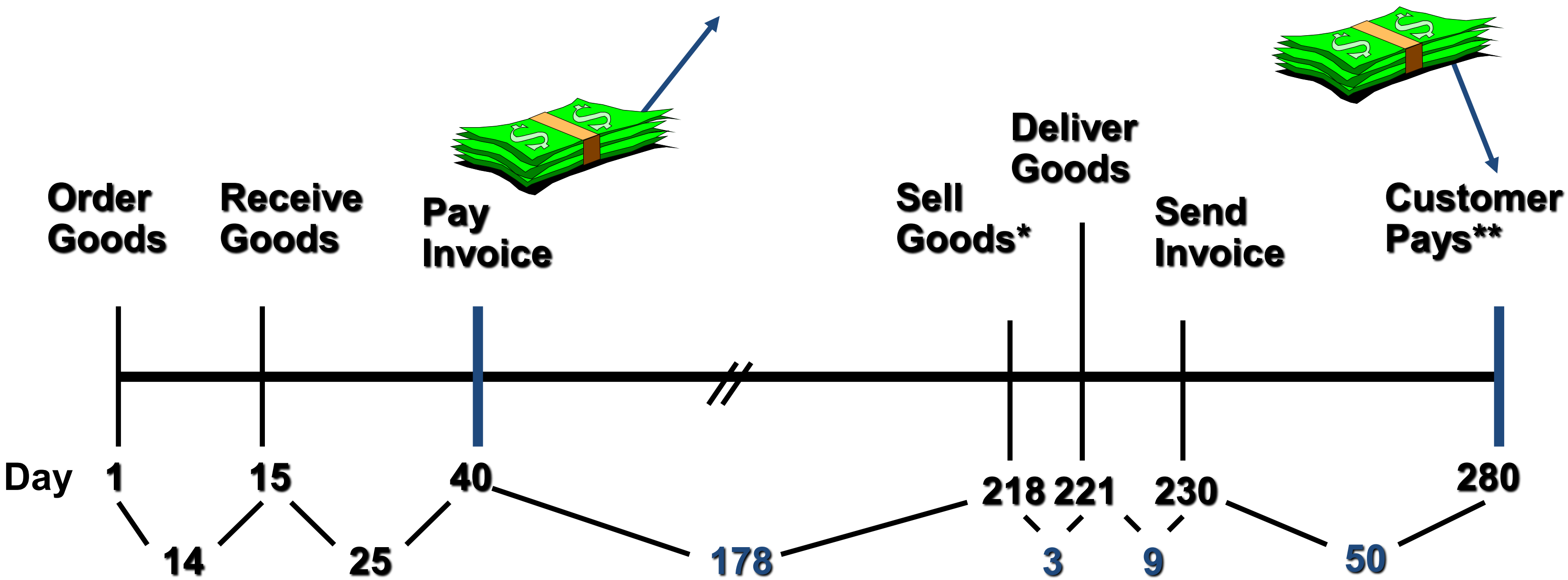
- Common cause of business failure: Cash crisis!
- A business can be earning a profit and be forced to close because it runs out of cash!
- Study shows:
  - 67 percent of small business owners have at least occasional problems managing cash flow.
  - 19 percent report cash flow as a continuing problem.

Cash Management



- Cash management – forecasting, collecting, disbursing, investing, and planning for the cash a company needs to operate smoothly.
- Young, growing companies are "cash sponges."
- Know your company's cash flow cycle.

The Cash Flow Cycle



Cash Flow Cycle = 240 days

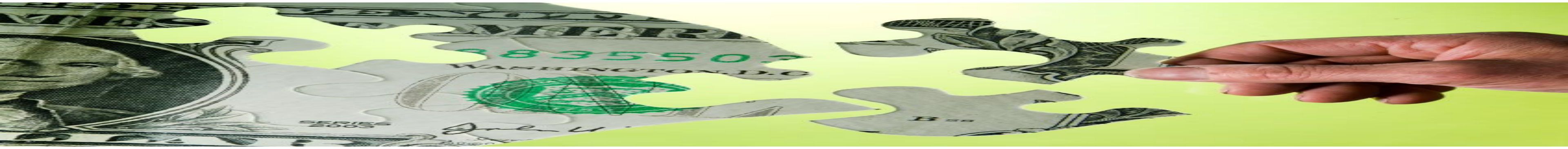
*** Based on Average Inventory Turnover:**

$$\frac{365\text{ days}}{2.05\text{ times/year}} = 178\text{ days}$$

**** Based on Average Collection Period:**

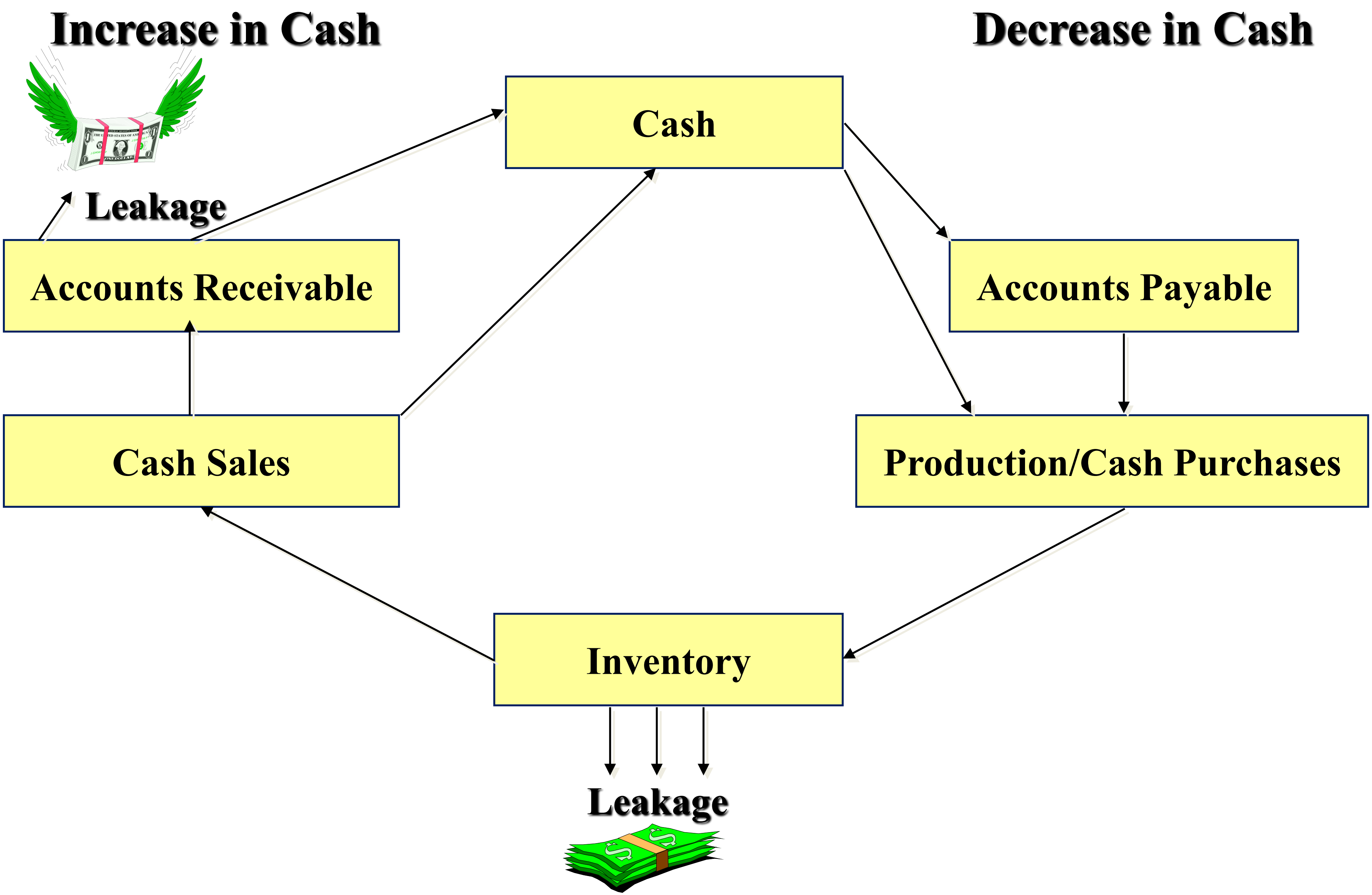
$$\frac{365\text{ days}}{7.31\text{ times/year}} = 50\text{ days}$$

Five Cash Management Roles of an Entrepreneur



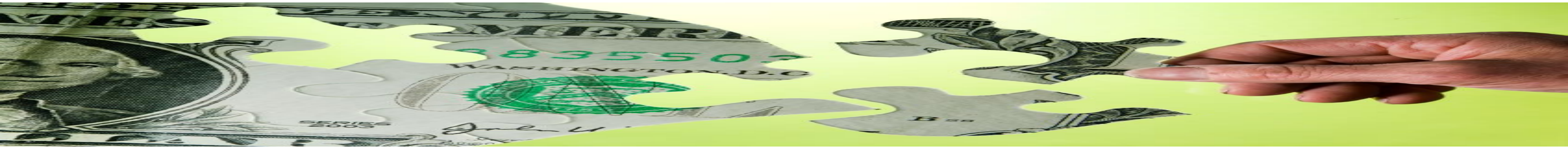
- Cash Finder
- Cash Planner
- Cash Distributor
- Cash Collector
- Cash Conserver

Cash Flow



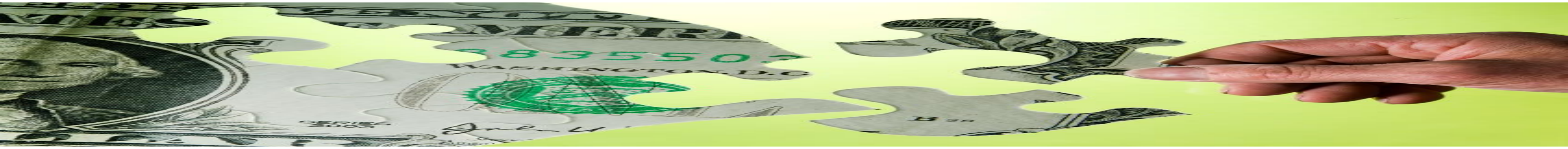
Increase in Cash
Decrease in Cash
Cash
Leakage
Accounts Receivable
Accounts Payable
Cash Sales
Production/Cash Purchases
Inventory
Leakage

The Cash Budget



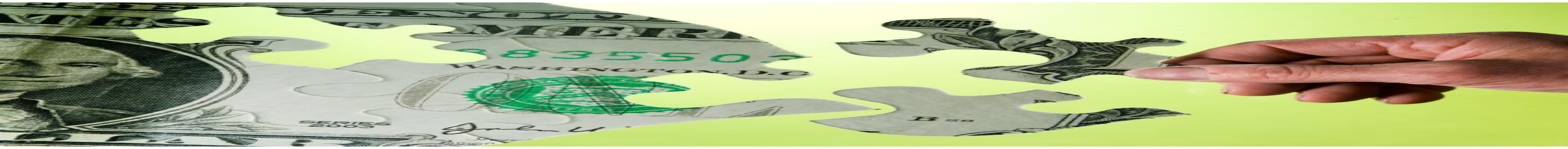
- A “cash map,” showing the amount and the timing of a firm's cash receipts and cash disbursements over time.
- Predicts the amount of cash a company will need to operate smoothly.
- A helpful tool for visualizing the firm's cash receipts and cash disbursements and the resulting cash balance.

Preparing a Cash Budget



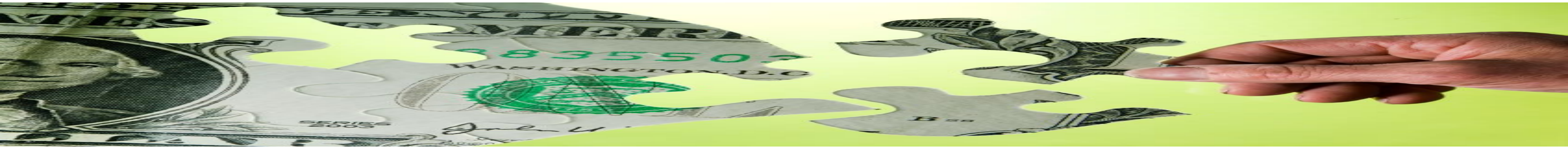
- Determine a Minimum Cash Balance
- Forecast Sales
- Forecast Cash Receipts
- Forecast Cash Disbursements
- Estimate End-of-Month Cash Balance

Determine a Minimum Cash Balance



- Remember Goldilocks, the Three Bears, and the porridge:
  - Not too much...
  - not too little...
  - but a cash balance that's just right ... for you!

Forecast Sales



- The heart of the cash budget.
- Sales are ultimately transformed into cash receipts and cash disbursements.
- Cash forecast is only as accurate as the sales forecast from which it is derived.
- “Lumpy” sales patterns are common.
- 15 percent to 18 percent of wine and spirits shops’ annual sales occur between December 15 and 31.
- 40 percent of toy sales take place in last 6 weeks of the year.

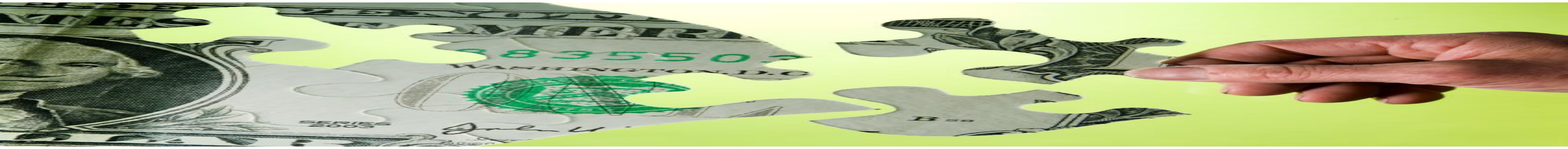
Forecast Sales

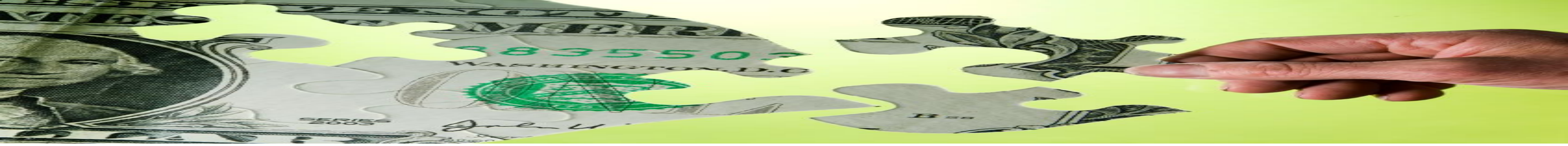
Prepare three sales forecasts:

- Most Likely
- Pessimistic
- Optimistic

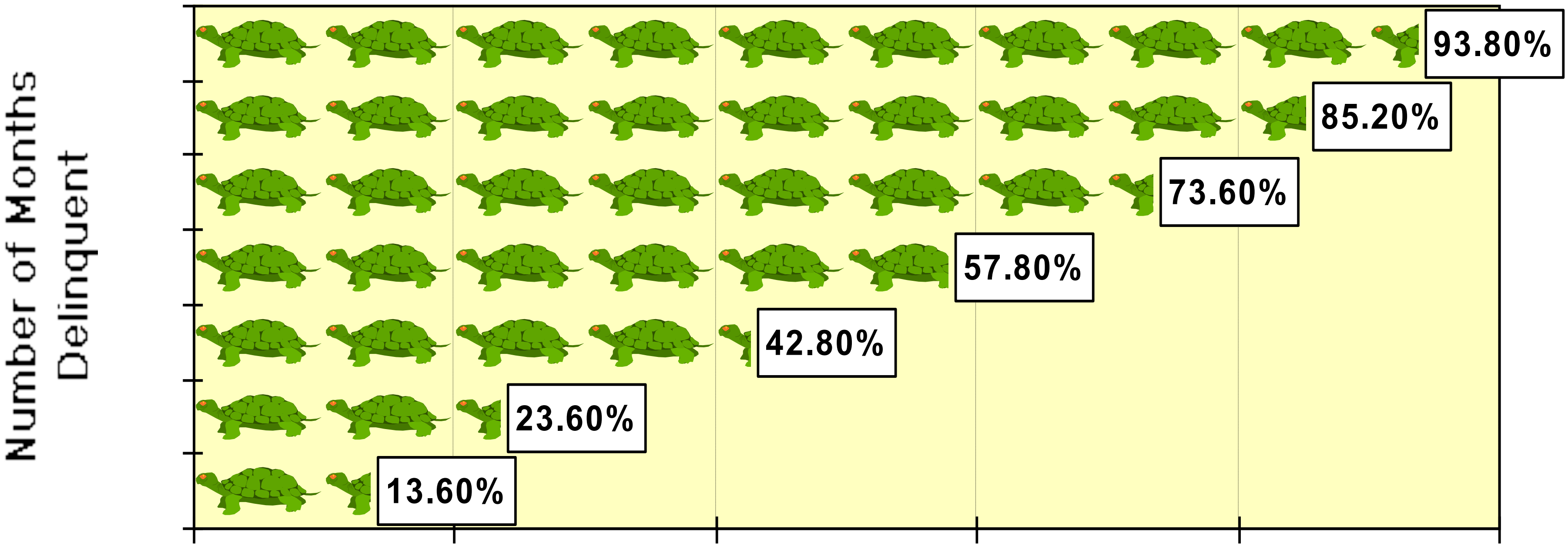
Forecast Cash Receipts

- Record all cash receipts when *actually received* (i.e., the cash method of accounting).
- Determine the collection pattern for credit sales; then add cash sales.
- Monitor closely slow and nonpayers.

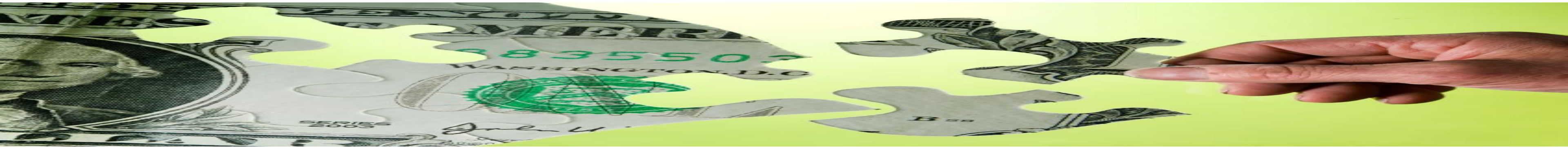




Collecting Delinquent Accounts

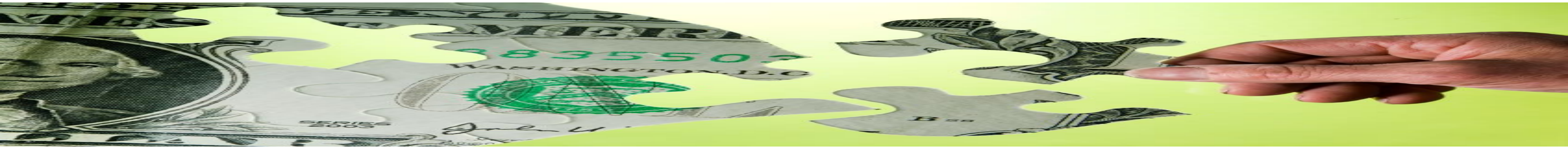


Forecast Cash Disbursements



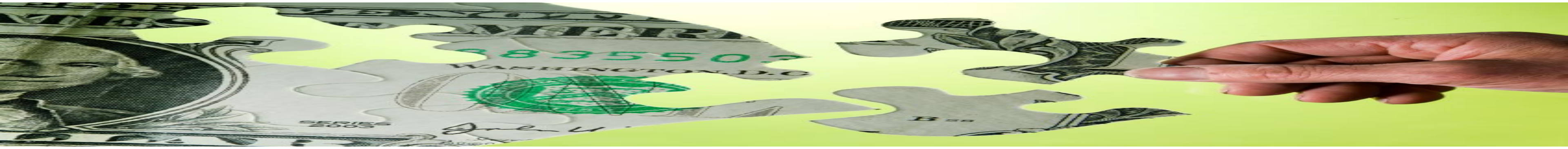
- Record disbursements when you expect to make them.
- Start with those disbursements that are fixed amounts due on certain dates.
- Review the business checkbook to ensure accurate estimates.
- Don't know where to begin? Try making a daily list of the items that generate cash and those that consume it.

Estimate End-of-Month Balance

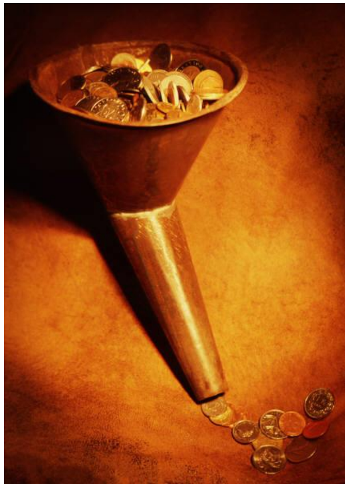


- Take Beginning Cash Balance…
- Add Cash Receipts…
- Subtract Cash Disbursements
- Result is Cash Surplus or Cash Shortage (Repay or Borrow?)

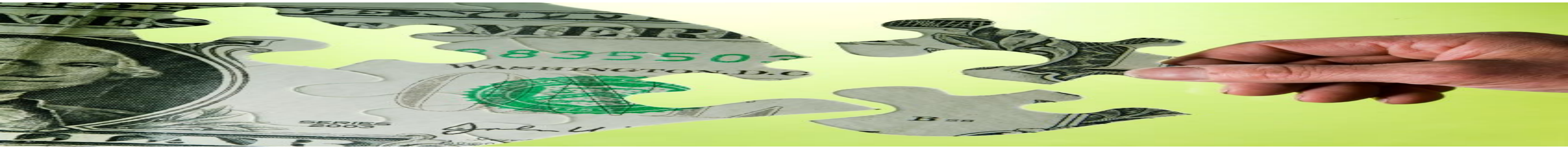
Benefits of Cash Management



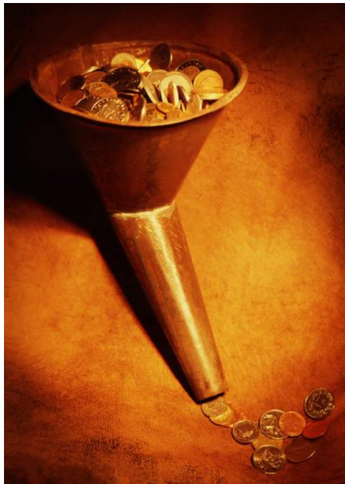
- Increase amount and speed of cash flowing into the company
- Reduce the amount and speed of cash flowing out
- Make the most efficient use of available cash
- Take advantage of money-saving opportunities such as cash discounts
- Finance seasonal business needs



Benefits of Cash Management

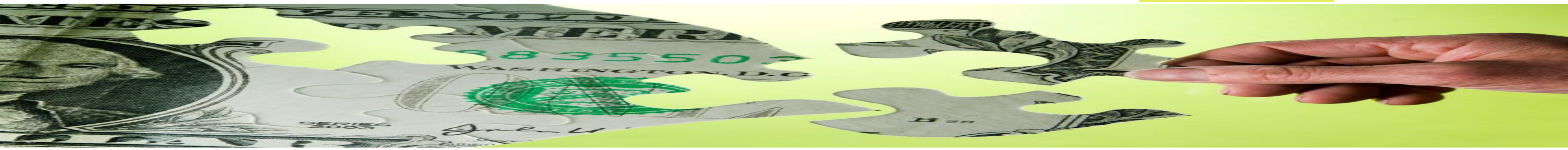


- Develop a sound borrowing and repayment program
- Impress lenders and investors
- Reduce borrowing costs by borrowing only when necessary
- Provide funds for expansion
- Plan for investing surplus cash



The “Big Three” of Cash Management

- Accounts Receivable
- Accounts Payable
- Inventory



Accounts Receivable

- About 90 percent of industrial and wholesale sales are on credit, and 40 percent of retail sales are on account.
- Survey of small companies across a variety of industries found that 77 percent extend credit to their customers.
- Remember: “A sale is not a sale until you collect the money.”
- The goal with accounts receivable is to collect your company’s cash as fast as you can.

Beating the Cash Crisis

Accounts Receivable

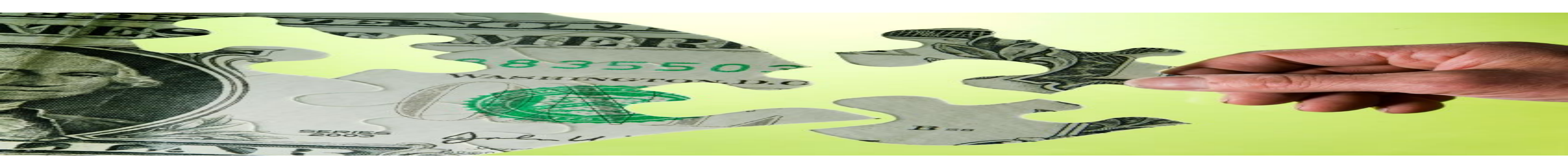
- Establish a firm credit-granting policy.
- Screen credit customers carefully.
- When an account becomes overdue, take action immediately.
- Add finance charges to overdue accounts (check the law first!).
- Develop a system of collecting accounts.
- Send invoices promptly.

Accelerating Accounts Receivable

- Ask customers to fax or e-mail orders
- Send invoices when goods are shipped
- Highlight the due date on invoices
- Restrict customers' credit until past-due bills are paid
- Deposit checks and credit card receipts daily

Accelerating Accounts Receivable

- Identify the top 20 percent of your customers and monitor them closely
- Ask customers for up-front payments
- Watch for signs that a customer may be about to declare bankruptcy
- Track the results of your company's collection efforts



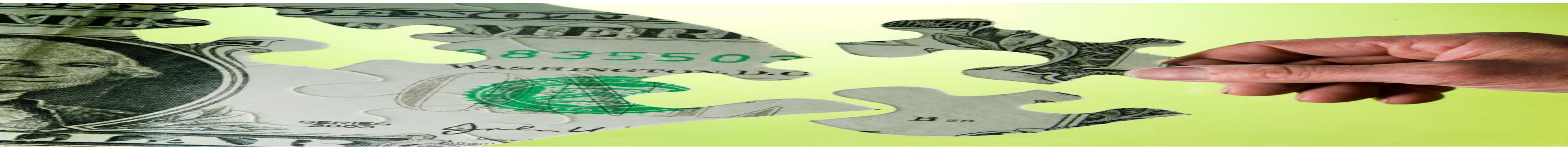
Beating the Cash Crisis

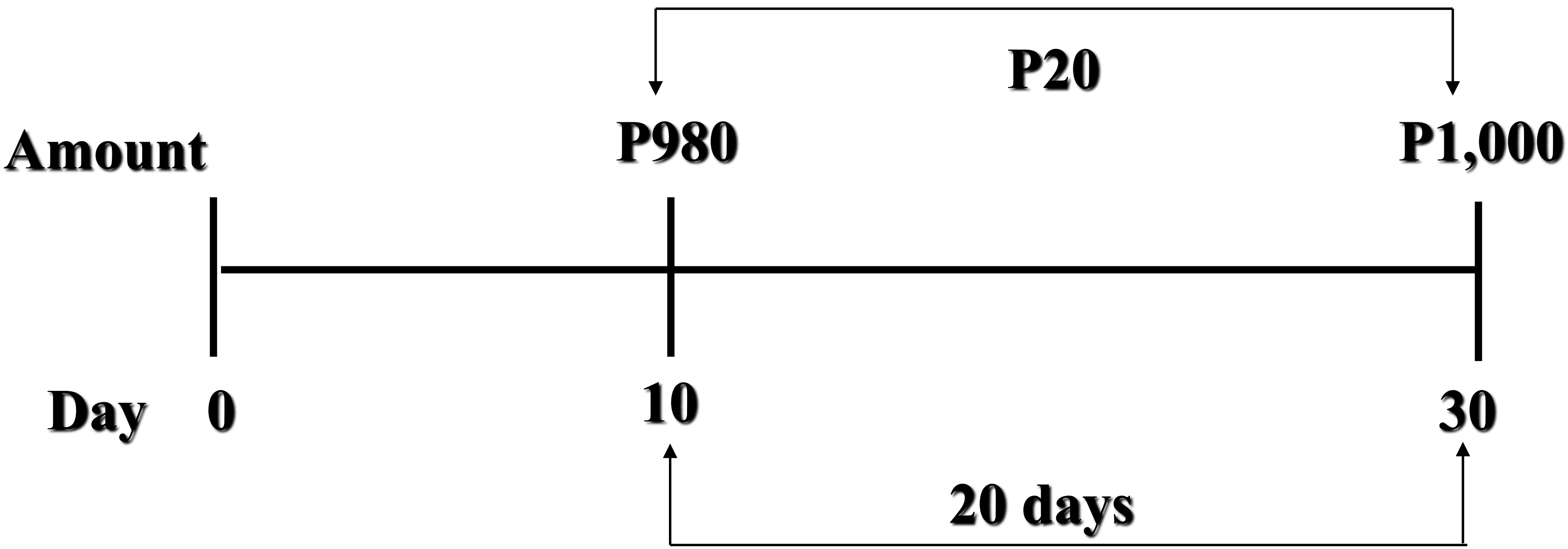
Accounts Payable

- Stretch out payment times as long as possible without damaging your credit rating.
- Verify all invoices before paying them.
- Take advantage of cash discounts.

The Cost of Forgoing a Cash Discount

P1,000 invoice 2/10, net 30





$$R = \frac{I}{P \times T} = \frac{P20}{P980 \times 20/360} = 36.7\%$$

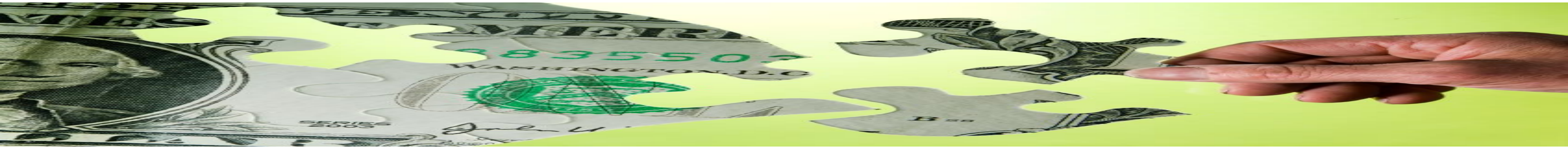
Beating the Cash Crisis

Accounts Payable

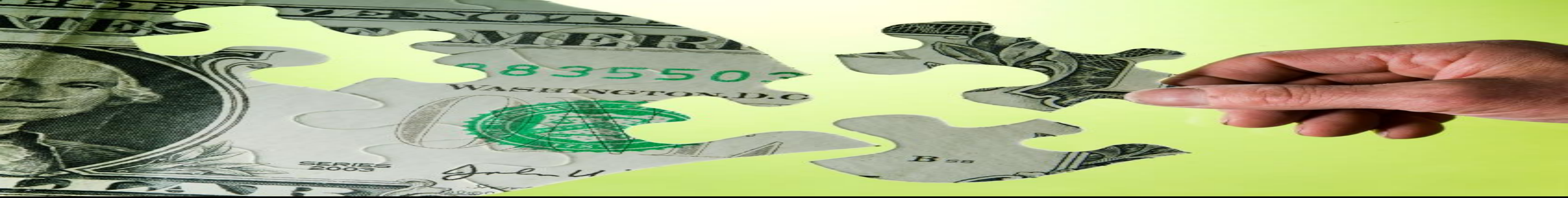
- Negotiate the best possible terms with your suppliers.
- Be honest with creditors; avoid the "the check is in the mail" syndrome.
- Schedule controllable cash disbursements to come due at different times.
- Use credit cards wisely.

Beating the Cash Crisis

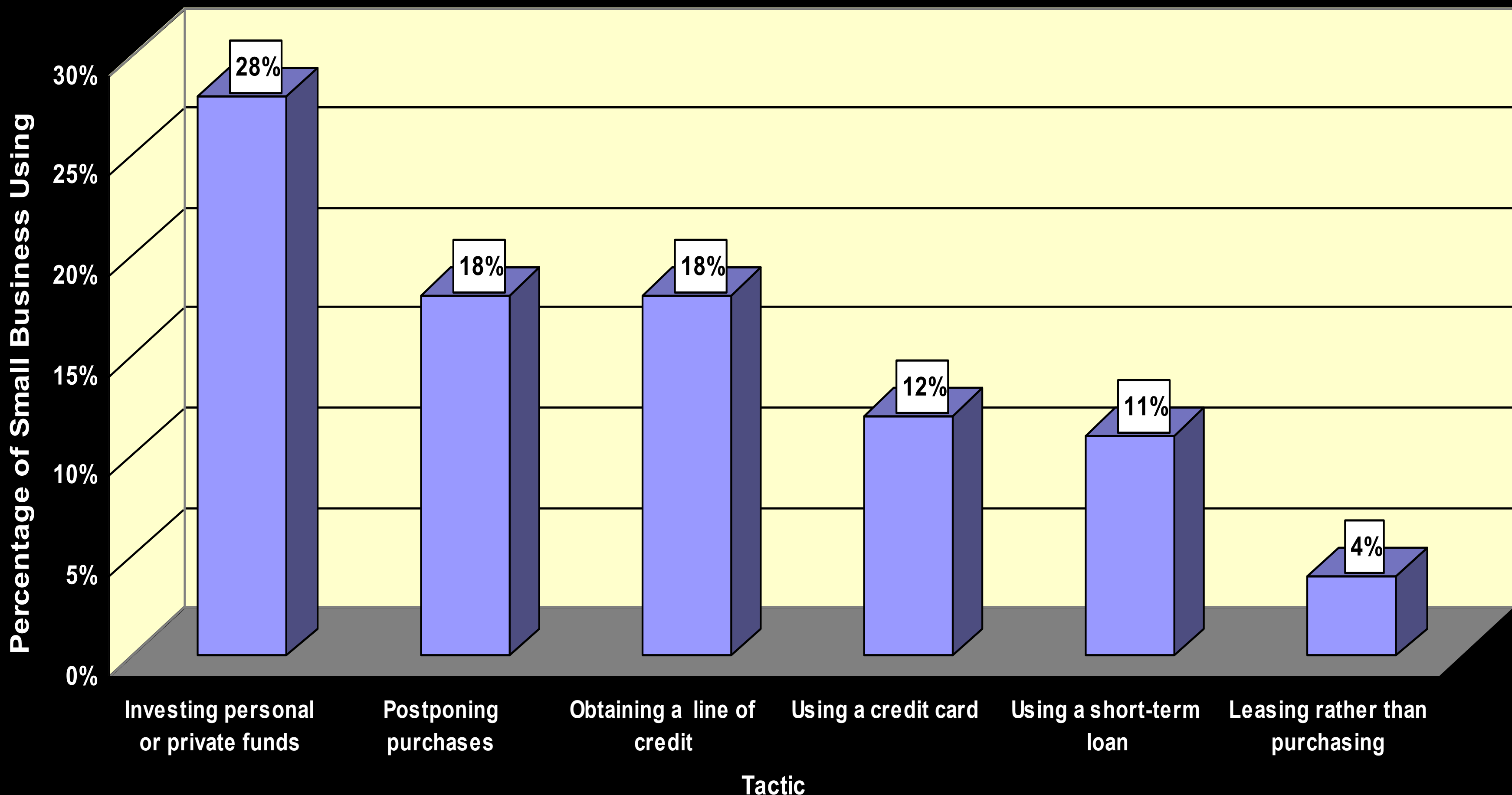
Inventory



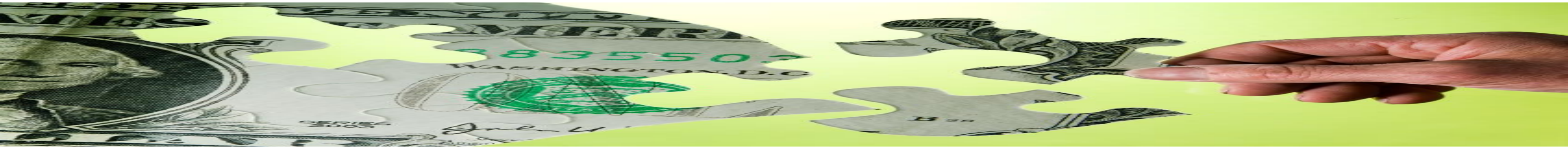
- Monitor it closely; it can drain a company's cash.
- Avoid inventory "overbuying." It ties up valuable cash at a zero rate of return.
- Arrange for inventory deliveries at the latest possible date.
- Negotiate quantity discounts with suppliers when possible.



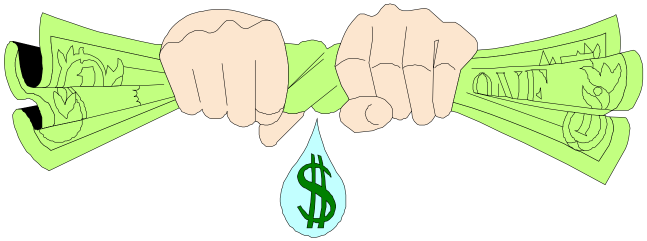
Coping with a Cash Crunch
Tactics Used by Small Businesses



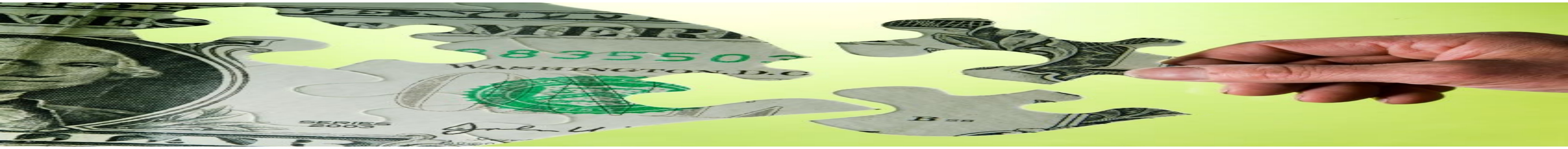
Avoiding the Cash Crunch

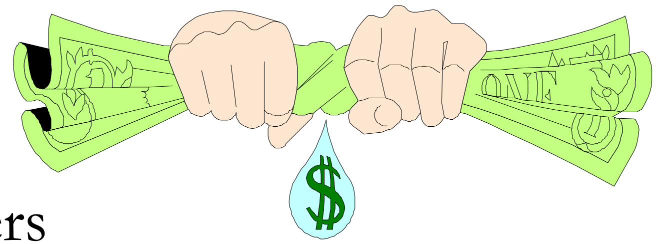


- Consider bartering, exchanging goods and services for other goods and services, to conserve cash.
- Trim overhead costs. For example:
- Ask for discounts and “freebies”
- Periodically evaluate expenses
- Lease rather than buy
- Avoid nonessential cash outlays
- Negotiate fixed loan payments to coincide with your company’s cash flow



Avoiding the Cash Crunch

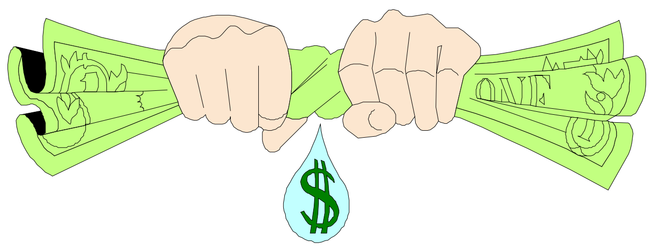




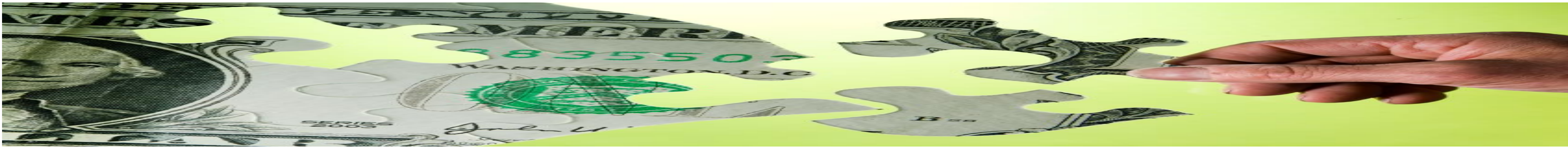
- Trim overhead costs. For example:
  - Buy used equipment
  - Hire part-time employees and freelancers
  - Outsource nonessential activities
  - Control employee advances and loans
  - Establish an internal security and control system
  - Devise a method for fighting check fraud
  - Change shipping terms
  - Start selling gift cards
  - Switch to zero-based budgeting

Avoiding the Cash Crunch

- Be on the lookout for employee theft
- Keep your business plan current
- Invest surplus cash



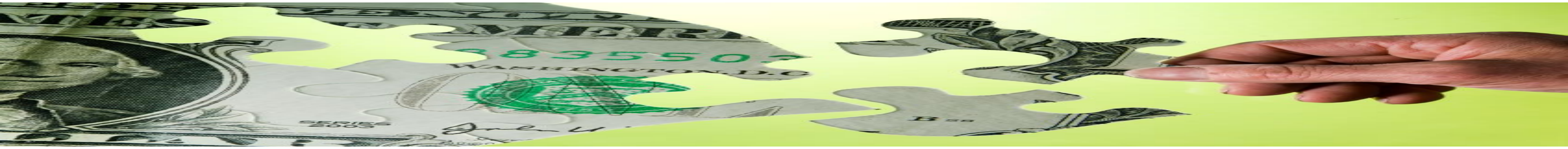
CASH BUDGET (FORECAST)



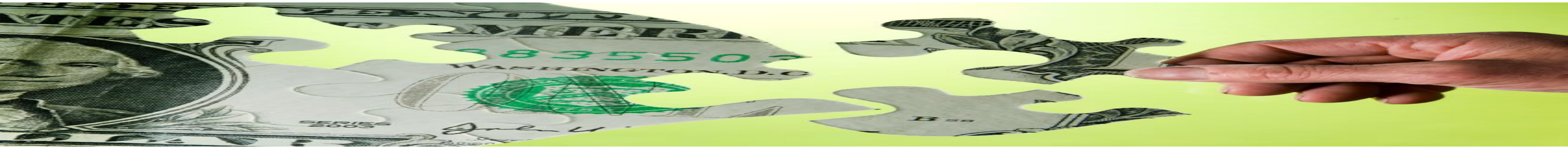
a plan for the cash inflows and outflows over a certain period of time.

THE CASH BUDGET IS A TOOL FOR FINANCIAL PLANNING

The cash budget helps the firm to plan for the actual receipt and disbursement of cash.



PREPARING THE CASH BUDGET

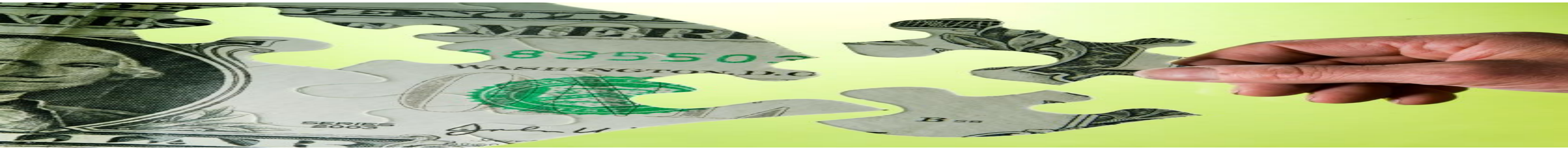


1. The company estimates the sales for each period during the planning period

Month	Sales for 2012	Projected Sales for 2013
January	2,514	2,706
February	3,628	3,788
March	5,059	5,410
April	5,998	6,492
May	9,452	9,654
June	10,657	11,241
July	3,452	3,652
August	4,148	4,620
September	2,003	2,050
October	1,876	1,930
November	1,640	1,750
December	1,573	1,582
Total	52,000	54,875

Monthly Distribution of sales for Happiness Place. (thousands of pesos)

PREPARING THE CASH BUDGET



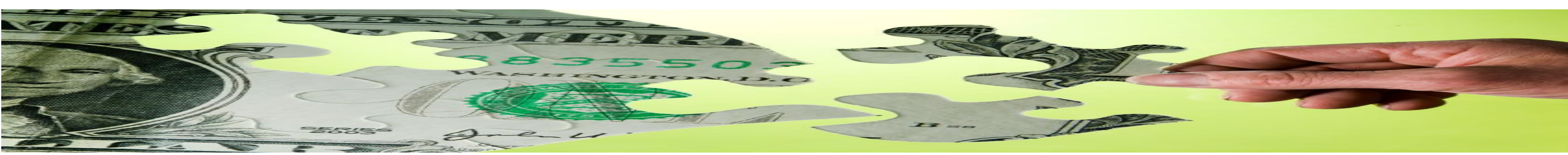
2. When will the sales actually generate cash?

(Sales made for credit do not produce immediate cash inflows, and the cash budget must take these delays into account.)

PREPARING THE CASH BUDGET

Customers' payment habits tend to remain in the same over time.

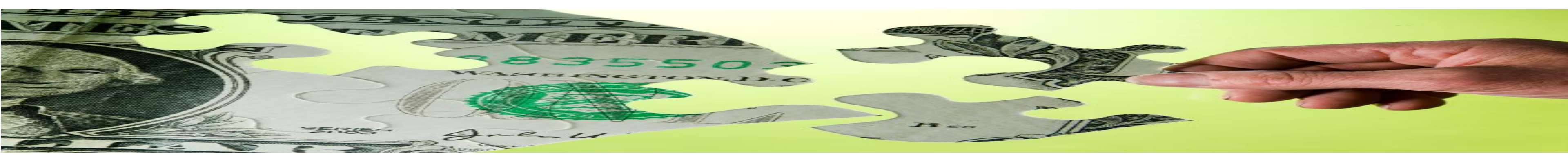
Payment Month	Percentage Paid
Month of sale	15%
Month after sale	35%
Second month after sale	50%



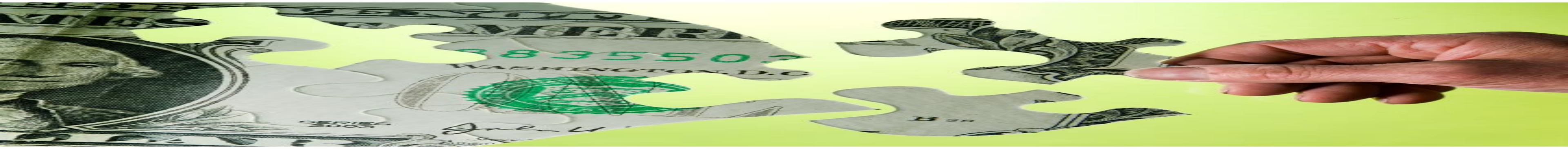
PREPARING THE CASH BUDGET

Month	Collected	Cash Amount
November 2012	15%	246,000
December 2012	35%	574,000
January 2013	50%	820,000

Cash Receipts for November 2012 (Sales - P1,640,000)



PREPARING THE CASH BUDGET



3. The company use the projected sales and payment pattern to prepare the cash inflows for 2013.

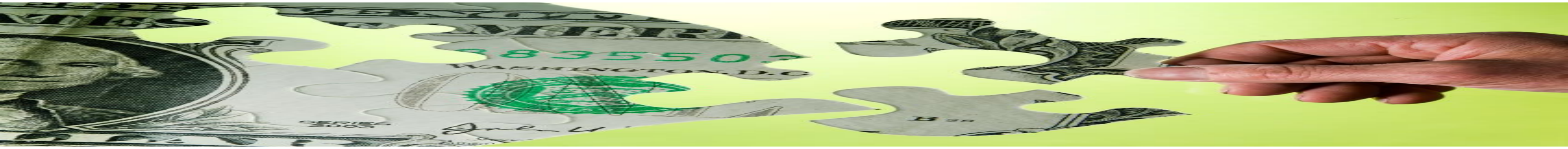
CASH RECEIPTS BUDGET

	January	*February*	*March*	*April*
Sales	2,706	3,788	5,410	6,492
Cash inflows*				
Cash sales (15%)	406	568	812	974
Collection of Receivables *One Month* *Two Month*	 551 820	 947 787	 1,326 1,353	 1,894 1,894
Total	1,777	2,302	3,491	4,762

Projected cash inflows of sales from 2013 for Happiness Place.

*The Cash Budget must reflect all cash inflows. These items should also include cash receipts for rent, interest, dividends.

PREPARING THE CASH BUDGET



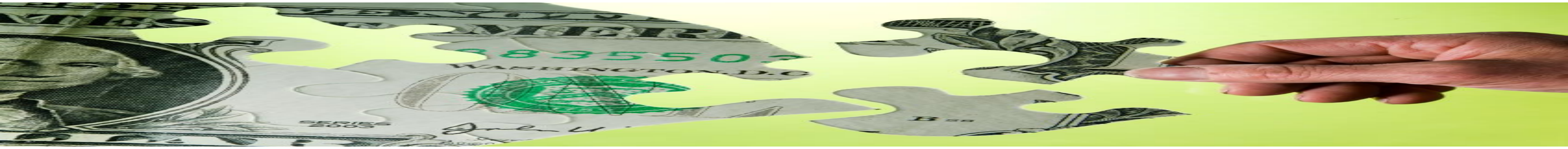
4. The firm makes a schedule of disbursements.

CASH DISBURSEMENT BUDGET

	January	***February***	***March***	***April***
Payment to suppliers				
*Cash	150	510	760	150
*Lagged 1 month	120	160	870	190
*Lagged 2 month	80	180	300	250
Wages and Salaries	700	960	1,120	1,060
Rents	400	400	400	400
Tax payments			60	
Interest	100	100	1,040	
Total	1,550	2,310	4,550	2,050

Projected Cash Disbursements for Happiness Place 2013 (thousand of pesos)

PREPARING THE CASH BUDGET



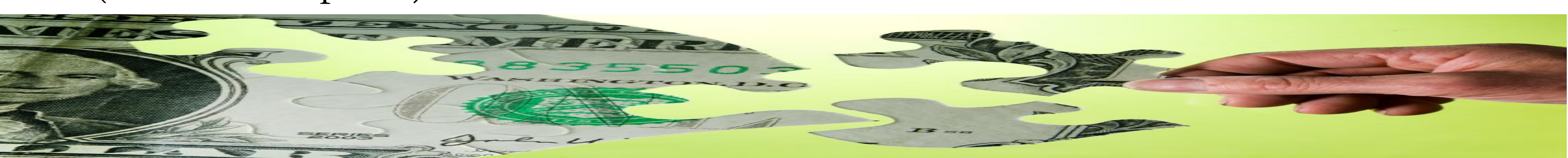
5. Finally we prepare the cash budget, the projected cash inflows and disbursements will be brought together with the cash available at the beginning of the period.

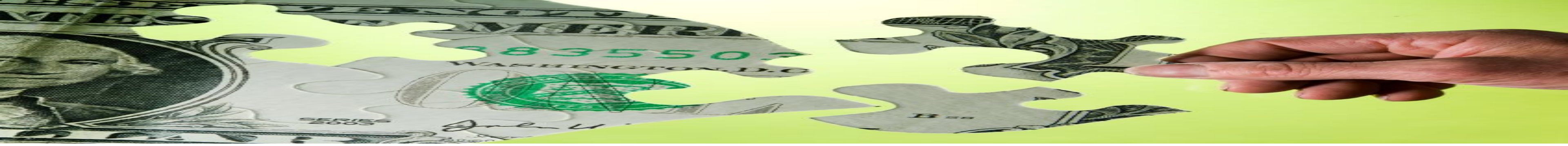
* Balance Sheet for Dec 31, 2012 showed Cash at P 180,000.00
* The company has a policy of maintaining at least P50,000.00 minimum cash balance

CASH BUDGET FOR HAPPINESS PLACE

	January	*February*	*March*	*April*
Beginning cash	180	407	399	(660)
Cash inflows	1,777	2,302	3,491	4,762
Cash available	1,957	2,709	3,890	4,102
Cash disbursement	1,550	2,310	4,550	2,050
Ending cash	407	399	(660)	2,052
Min. cash balance	50	50	50	50
Excess (needed) cash	357	349	(710)	2,002

(thousand of pesos)





Short Explanations

- The first line shows the beginning cash. For January is simply from the balance sheet for 2012.
- The second line shows the cash inflows the company expects in each month.
- Line 3 is the sum of the first and the second line, the available cash.
- Line 4 is for the projected cash disbursements
- To get line 5 we have to subtract from the available cash the cash disbursements. So will we get the amount of cash the company expects to have at the end of the month.

(This ending cash figure would be carried forward as the beginning amount of cash for the next month.)

Short Explanations

- In the line 6 we have the minimum cash balance that the company like to have as a precaution against planning errors or to be sure not run out of cash
- Line 7 shows any excess or shortfall of cash. A positive number (excess cash) indicates the company can invest it to a return.
- A negative number (needed cash) indicates the company must acquire money to pay its debts and to maintain its minimum cash balance.