Center for Cooperatives
UNIVERSITY OF WISCONSIN–MADISON

Understanding Worker Cooperative Finances:

A Learning and Training Tool[1]

Description

This document accompanies the Worker Co-op Financial Training Tool Excel workbook, a set of linked spreadsheets that allows you to explore the financial effects of business decisions on sales, expenses, and patron equity.

The *Understanding Business Activities: A Closer Look* profiles a fictional worker-owned cooperative café that has been in business for 2 years. The worksheets describe the major factors behind business activity in Year 1 and Year 2.

The *Financial Reporting* section describes how the co-op's business activity in Years 1 and 2 is reported on the income statement, cash flow statement, and balance sheet. These financial reports are used for business decision-making.

The *Scenarios* section includes exercises that allow the user to change the major factors that drive business activity for Years 3, 4 and 5. The impacts on business activity are automatically calculated in the financial reports. These "what-if" exercises help to explore the trade-offs that a cooperative must weigh as it decides how to manage and grow its business.

[1] The 2018 revision to the Worker Cooperative Learning and Training Tool has been supported by a grant from The Cooperative Foundation.

Directions for Use

The Excel workbook can be downloaded from the website multiple times. It may be helpful to create a new version of the workbook before working through the *Scenarios* section, so that you can compare the results of the exercise to the original values.

The workbook has been designed so that the input cells on the spreadsheets will automatically cause the values in other worksheets, including the financial reports, to be recalculated. These cells are shaded green. Values that are automatically calculated are displayed in cells that are shaded orange for Years 1 and 2, and blue for Years 3-5.

However, an interested user can experiment with changing assumptions and formulas in all cells, which will cause additional recalculations in the worksheets. See the Directions tab in the workbook.

Contact the University of Wisconsin Center for Cooperatives with your feedback: info@uwcc.wisc.edu. We're interested in hearing from you!

The workbook and document use simplified financial and accounting assumptions to illustrate basic cooperative finance and business concepts. They are not intended for use as business decision-making tools.

I. Understanding Business Activities: A Closer Look

Main St. Co-op Cafe is a worker-owned cooperative coffee shop based in Anytown, U.S.A. It is incorporated as a cooperative under state statute. It has been in operation for two years, and the business is doing well.

Its business success is the results of several factors. It is an ideal location in a downtown area with plenty of pedestrian traffic. The menu, consisting of coffee, tea, other beverages, bakery, and cold and hot sandwiches, has created repeat customer business.

Worker ownership has created a culture with a strong focus on maintaining efficient operations and customer satisfaction, while fostering a collaborative, problem-solving, supportive work culture.

The spreadsheets below display the factors that drove the business results for Years 1 and 2. The summary business results for Years 1 and 2 have been automatically calculated from these factors, and are reported on the income statement, the cash flow statement, and the balance sheet. These financial reports are described in Section II.

The user can input assumptions for these factors for Year 3-5. The factors will automatically be used to calculate the business activity and display the results on the financial reports. Exercises that use this functionality are described in Section III.

Spreadsheet: Capital Sources & Uses

This spreadsheet shows the relationship between asset purchased for cooperative operations, and debt and equity financing needed to make those purchases. Find the values described below on the spreadsheet for Year 1.

Capital Uses

The Co-op needed $111,000 in start-up cash, or capital, in Year 1. The capital was used to purchase:

- New Asset Expense: $80,000

  Leasehold improvements to the rental space, and equipment needed for operations (coffee makers, tables, chairs, etc.).

- Initial Inventory purchases: $12,000

  As inventory is used during the year for the Co-op's business operations, more inventory is purchased. In this simplified scenario, it is assumed that the co-op manages its operations to end the year with the same value of inventory purchases that it started with.

- Working Capital Allowance for miscellaneous expenses at start-up: $19,000

These are *assets* of the co-op. The value of the asset is its cost to the co-op at a point in time. In the case of working capital, it is the amount of cash.

Capital Sources

To pay for the assets, the six member-owners obtained capital from several sources. Equity Contributions came from Members:

- Individual Member Equity Requirement: $6000
- Number of New Members: 6
- Total Member Initial Equity Contributions: $36,000

  The members' investment is their equity, or ownership, stake in their new co-op. The equity payments are at-risk capital, since loans and other obligations must be met before equity can be paid back to owners. Equity investments give members ownership rights.

The Co-op also used debt to finance a large part of the capital needs for start up. The interest rate and the length of the loan determine the amount of interest and the number of payments over time that the co-op must make to pay back the loan:

- Bank Loan Amount: $75,000
- Loan Duration (Years) 7
- Loan Interest Rate 7.5%

The loan is a major liability of the co-op, since it has an obligation to repay the loan. The bank was willing to make the co-op a loan because the members had invested some of their own money as equity into the business.

Asset Depreciation

Fixed assets are used repeatedly over time, and eventually reach the end of their useful lives or become obsolete. The annual portion of the asset's useful life that is "used up" is the asset's depreciation.

The annual depreciation is calculated by assigning a certain number of years as the useful life of an asset. That number of years is divided into the initial cost of the asset to calculated the asset's annual depreciation.

The cooperative will depreciate the Asset purchased in Year 1:

- Initial Equipment/Leasehold Improvement: $80,000
- Depreciation Schedule/Years: 15
- Annual Depreciation: $5333

The value of the assets, liabilities and equity are automatically reported on the balance sheet.

Spreadsheet: Loan Repayment

This spreadsheet automatically calculates any monthly loan payments. The monthly loan payment calculations use the interest rate and payback period of each loan that is shown on the Capital Sources and Uses spreadsheet.

The monthly payments of the loan remain the same over the length of the loan, but the portion of the monthly payment that pays off interest and the principle changes over time.

The user does not need to input values on this spreadsheet.

Spreadsheet: Revenue & Cost Assumptions

Revenue Assumptions

The co-op's revenue comes from the daily sales of coffee and sandwiches. The daily averages for Year 1 that drive the sales are listed under "Revenue Assumptions":

- Days open annually: 355
- Coffee: cups/day sold: 225
- Coffee: price/cup: $2.50
- Food: units/day sold: 180
- Food: price/unit : $7

The units of coffee and food sold in Year 2 increased, but the number of days open and the unit sales price remained the same. The spreadsheet used the percent increase to calculate the increased units for Year 2.

- Unit increase: 3%

The spreadsheet automatically calculates the changes for Year 2 using this percentage. Compare Year 2 units with Year 1 to see the 3% increase.

The increase in units sold increased sales in Year 2.

- Total Annual Sales: Year 1: $646,988 Year 2: $667,515.

Expense Assumptions

Several different categories of expenses are part of the co-op's business operations.

Cost of Goods

The co-op's primary expense is the cost of the goods sold – what the co-op pays for the coffee and food that it prepares and sells to its customers, and other per unit costs related to preparation. The "Cost of Goods" averages for Year 1:

- Coffee (cost/unit) .50
- Food (cost/unit) 3.00
- Other (cost/unit) $0.15

Cost of Goods expenses increased in Year 2.

- Annual increase: Cost of Goods: 2%

The spreadsheet automatically calculates the costs for Year 2 using this percentage. Compare Year 2 cost of goods with Year 1 to see the 2% increase.

The increase in unit costs increased Total Cost of Goods in Year 2.

- Total Cost of Goods: Year 1: $253,204 Year 2: $266,529.

Fixed Expenses

Fixed expenses must be paid regardless of the amount of revenue that the co-op brings in. These expenses include rent, utilities, interest on any loans, and insurance.

Rent, utilities, and insurance expenses are based on the number of square feet rented.

Fixed expenses for Year 1 were:

- Retail space – total square feet 1800 sq ft
- Rent (annual cost/sq. ft) $30

- Utilities (annual cost/sq. ft) $12
- Insurance(annual cost/sq. ft) $3

Fixed expenses increased in Year 2.

- Cost increase: 2%

The spreadsheet automatically calculates the costs for Year 2 using this percentage. Compare Year 2 cost of goods with Year 1 to see the 2% increase.

Marketing Expenses

Marketing expenses are budgeted as a percent of revenue. Year 1 expenses were calculated using:

- Marketing (% of revenue) 2%

The spreadsheet automatically calculates the costs for Year 2 using this percentage. The percentage did not change, but the marketing expenses increased because Year 2 sales were larger than Year 1.

Annual Marketing Expense:

- Year 1: $12,940 Year 2: $13,350.

Wage expenses are described below in Spreadsheet: Wages.

Spreadsheet: Wages

Wages, payroll taxes, and employee benefits one of the single largest expenses for the co-op. The worker-owners organized the co-op with the goal of providing themselves with a full-time, consistent source of income at a livable hourly wage with benefits.

While sales increased in Year 2, the co-op did not need to hire more workers or add new members to handle the increased business.

Worker-owner wages and hours worked in Years 1 and 2:

- Hourly wage: $15

- Hours per week: 40
- Annual Wages: $31,200

Because of variations in daily work flow, the Co-op also employs three part-time employees who are not members to meet staffing needs during busy periods.

Employee wages and hours worked in Years 1 and 2:

- Hourly wage: $10.50
- Hours per week: 12
- Annual Wages: $6,552

Although worker members are owners of the cooperative, they are legally categorized as employees of the Co-op for tax and benefit purposes. Businesses are required to pay one half of their employees' contribution to Medicare and Social Security through payroll taxes.

This percentage is relatively constant, and in Years 1 and 2 were:

- Payroll taxes (% of wages): 12%

The co-op pays benefits (health insurance and paid vacation) for both members and employees. Benefit levels are determined by the Board of Directors, which is made up of all six of the Co-op members.

In Years 1 and 2:

- Benefits (% of wages): 25%

Spreadsheet: Patronage – Internal Capital Accounts

Annual net income, or profit, from business activities can be treated as unallocated retained income owned by the Co-op, or allocated to members to distribute or retain in member internal capital accounts.

The Co-op's Board of Directors meets annually to review the financial performance of the Co-op, and to make these decisions. (For a summary review and chart about treatment of profits in a cooperative, see the Appendix.)

The first two years the Board agreed to treat a portion of the net income as unallocated, or collective equity to reinvest in co-op operations for the coming year. The Co-op pays taxes on this amount.

In Years 1 and 2 the Board decided on:

- Unallocated profit (% of profit): 35%

The remaining net income was allocated to members on a qualified patronage basis. In Years 1 and 2, the Board decided on:

- Qualified Patronage Allocations (% of profit): 65%

Total Qualified Allocated Patronage Income:

- Year 1: $3757 Year 2: $7546

The board can retain a portion of qualified allocations as a patronage-based equity investment, but the tax liability for the entire allocation is passed through to the member. At least 20% of the allocation must be distributed as cash patronage refunds.

In Years 1 and 2, the board determined that additional equity was needed to support Co-op operations. It decided to retain some of the patronage allocation:

- Qualified Patronage Allocations: % Refund: 40%
- Qualified Patronage Allocations: % Retained: 60%

Total Annual Qualified Allocated Patronage-Refunds:

- Year 1: $1503 Year 2: $3018

Total Annual Qualfied Allocated Patronage-Retained:

- Year 1: $2254 Year 2: $4528

To calculate an individual member's patronage, the Co-op uses the member's proportion of the total number of hours worked during the year by all members. This percentage is applied to the qualified patronage allocation total to calculate the individual member's patronage allocation. The individual allocation is further divided into a refund and an amount retained. The Co-op keeps track of each member's retained patronage allocation in individual internal capital account. The Internal Capital Accounts also record the Initial Equity Contribution per member.

In Years 1 and 2, all members worked the same number of hours (see Wages spreadsheet), and received the same allocation amount. In Years 1 and 2, the patronage allocation for each member in the co-op was:

- Patronage %:
  Year 1: 17% Year 2: 17%
- Member Qualified Patronage Allocation:
  Year 1: $626 Year 2: $1258
- Member Qualified Patronage Allocation-Refund:
  Year 1: $250 Year 2: $503
- Member Qualified Patronage Allocation-Retained:
  Year 1: $376 Year 2: $755
- Balance: Member Internal Capital Accounts:
  Year 1: $376 Year 2: $1130

II. Financial Reporting

Three basic financial reports are the primary financial decision-making tools for the Board and the Co-op members. The reports help them understand the co-op's business activities, monitor profitability, make decisions about operations, and plan for the future. The following charts illustrate the flow of activities included in these reports.

At a starting *point* in time:

Balance Sheet
Assets
Cash/Current Assets
Long-term Assets
Liabilities and Member Equity
Current Liabilities
Long-term Liabilities
Member Equity

The *balance sheet* summarizes:

- The value of what the co-op business owns – its assets;
- The amount that the co-op owes to creditors and lenders – its liabilities;
- What is owned if the assets are used to pay off liabilities – the member owners' equity.

Summarizing *activity* for the next *period* of time:

Business activity linking revenue and expenses

Income Statement
Sales Revenue
Cost of Goods
Gross Profit Margin
Expenses
Wages
Operating Expenses
Depreciation
Profit Before Taxes
Taxes
Net Profit

The *income statement* summarizes:

- revenue that the Co-op business activities produced;
- expenses that were incurred to produce revenue;
- net profit that remains.

Cash activity: linking cash receipts and payments

Statement of Cash Flows
Cash Flow: Operating Activities
Adjustments to Net Profit
Loan Principal Payments (cash out)
Depreciation Expenses (no cash out)
Cash Flow: Financing Activities
Member Equity
Loans
Cash Flow: Investing Activities
Leasehold Improvements, Equipment
Net Change in Cash

The *cash flow statement* summarizes:

- cash that was received by the business;
- cash that was paid out by the business;
- cash that remains.

<u>At (the next) *point* in time:</u>

Balance Sheet
Assets
Cash/Current Assets
Long-term Assets
Liabilities and Member Equity
Current Liabilities
Long-term Liabilities
Member Equity

The *balance sheet* summarizes:

- The value of what the co-op business owns – its assets;
- The amount that the co-op owes to creditors and lenders – its liabilities;
- What is owned if the assets are used to pay off liabilities – the member owners' equity.

In this workbook, the three financial reports are automatically calculated from the activity spreadsheets described in the preceding Section I, Understanding Business Activities.

Spreadsheet: Income Statement (Time Period = Year)

The Income Statement uses the accrual method to report financial performance. This means that sales revenue are reported together with the associated expenses, regardless of whether the actual cash has been received or spent during that time period. By reporting associated revenue and expenses together, the income statement will show whether revenue is covering the expenses, and whether operations are profitable. This contrasts with the Cash Flow Statement, which reports on actual cash received and paid out during a time period.

> **Find the values listed below for Year 1 on the Income Statement, and on the source spreadsheet in the parentheses.**

Revenue

The sales of coffee/tea, and of food is reported as revenue.

- Total Revenue: Year 1: $646,988
  - (Total Annual Sales, Revenue &Expense Assumptions worksheet)

Expenses

Cost of Goods is the total cost to the Co-op of the products that it will sell. These expenses are calculated using the activity on the Revenue &Expense Assumptions worksheet.

- Total Cost of Goods: Year 1: $253,204
    - (Total Cost of Goods, Revenue &Expense Assumptions worksheet)

Fixed Expenses are operational expenses that are not affected by sales activity. The expenses are calculated using the activity on the Revenue & Expense Assumptions worksheet.

- Wages: Year 1: $206,856
    - (Total Annual Wages, Wages worksheet)
- Payroll Taxes: Year 1: $24,823
    - (Total Annual Payroll Taxes, Benefits, Wages worksheet)
- Benefits: Year 1: $51,714
    - (Total Annual Benefits, Wages worksheet)
- Insurance: Year 1: $5400
    - (Insurance, Revenue & Expense Assumptions)
- Rent: Year 1: $54,000
    - (Rent, Revenue & Expense Assumptions)
- Utilities: Year 1: $21,600
    - (Utilities, Revenue & Expense Assumptions)
- Marketing: Year 1: $12,940
    - (Annual Marketing Expense, Revenue & Expense Assumptions)

Depreciation is a calculation that quantifies the annual use of a long-term asset that will need to be replaced eventually. Annual depreciation is treated an expense of carrying out business operations and should be considered in determining the profitability of the business, although there is no cash outlay.

- Depreciation: Year 1: $5333
    - (Annual Depreciation, Capital Sources & Uses worksheet)

Interest Expense is the cost of using the loan principle for that year. The principle is not included on the income statement because it is a long-term liability for an asset that is used for multiple years.

- Interest Expense: Year 1: $5338
    - (Annual Interest Payment(s), Loan Repayment worksheet)

Total Expenses

Total Expenses combine the Cost of Goods with the Total Fixed Expenses.

- Total Expenses: Year 1: $641,207

Net Income Before Taxes

The Net Income Before Taxes is the profit remaining after total expenses have been subtracted from total Revenue. If it is a negative number, the Co-op has lost money on business operations. If it is a positive number, the Co-op has made a profit.

- Net Income Before Taxes: Year 1: $5780

Net Income

The Co-op pays corporate income tax on the portion of the net income or profit that is retained by the Co-op as unallocated equity.

- Corporate Income Taxes on Unallocated Income: $425
    - (Corporate Income Tax %, Revenue & Expense Assumptions Worksheet)
- Net Income: $5355

Treatment of Net Income before Taxes

As previously described in the section on the Patronage-Internal Capital Accounts Spreadsheet, the Board reviews the Co-ops annual financial performance and decides how much of the net income to reinvest in the Co-op, and how much to distribute to the members.

To meet its ongoing needs for equity reinvestment, the Co-op board decided to set aside some of the net profit before taxes as unallocated:

- Unallocated Income: $2023
    - (Unallocated %, Patronage, Internal Cap Accts Worksheet)
- Corporate Income Taxes on Unallocated Income: $425
    - (Corporate Income Tax %, Revenue & Expense Assumptions Worksheet)
- Unallocated Income-Net of Taxes: $1598

The board also made qualified patronage allocations, and retained a portion as ongoing member equity investments.

- Qualified Allocated Patronage Income: $3757
    - (Qualified Allocated %, Patronage, Internal Cap Accts Worksheet)
- Qualified Patronage Allocations-Retained: $2254
    - (Qualified Patronage Allocations: % Retained, Patronage-Internal Cap Accts Worksheet)
- Qualified Patronage Allocations-Refunds: $1503
    - (Qualified Patronage Allocations: % Refund, Patronage-Internal Cap Accts Worksheet)

Spreadsheet: Cash Flow Statement (Time Period = Year)

The Cash Flow Statement reports on the cash received and payments made from operating, investing, and financial activities during a given time period. It reflects the actual flow of cash related to the activities reported on the Income Statement during that period. As a result, the amount of cash at the end of the reported time period will be different from the net income that is reported on the Income Statement.

The Cash Flow Statement is used to manage business operations and maintain the positive cash flow that is needed to pay employees, purchase inventory, and pay bills for business expenses.

> **Find the values listed below for Year 1 on the Cash Flow Statement, and on the source spreadsheet in the parentheses.**

Operating Activities

The Cash Flow Statement begins with the Starting Cash Position net income (or Loss) at the bottom of the Cash Flow Statement. The cash starting position in Year 1 occurs before the initial financing and first year of operations.

- Starting Cash Position: $0

The first adjustment to the Starting Cash Position is the addition of the Net Income (Loss) from the Income Statement.

In this simplified scenario, the Co-op receives cash at the time a sale is made, so no adjustments for outstanding receivables are required.

- Net Income (Loss): $5355
  - (Net Income, Income Statement)

The initial inventory purchase was not reported on the Income Statement, since it occurred before operations began.

- Initial Inventory Purchasing: ($12,000)
  - (Initial Inventory, Capital Sources & Uses)

Some of expenses that are reported on the Income Statement have not actually been paid out at the end of year. The cash that will be used for these purchases are categorized as Accounts Payable. Those amounts need to be added back into the Net Income figure to reflect the actual cash available to the Co-op.

In this simplified scenario, it is assumed that inventory levels are managed so that the year-end value is the same as at the beginning. Inventory purchases occur throughout the year, but there will be some purchases at year end that have not yet been actually paid for.

Inventory Accounts Payable are assumed to be inventory needed for 14 days of operations. This is calculated by dividing the Total Cost of Goods for the year by 14. The calculation is shown on the bottom of the Cash Flow Statement.

- Accounts Payable: Inventory: $9712
    - (Accounts Payable: Inventory - 14 days of Total Cost of Good, Cash Flow Statement)

Notice that in Years 2-5, only the difference between the current year and the past year is reported in the Cash Flows from Operating Activities section.

This is a reporting short-cut. The cash for the following year would need to be adjusted downward by the amount of the Accounts Payable: Inventory number, since it will be paid out in the following year. The following year will also end the annual reporting period with another Accounts Payable: Inventory adjustment for cash that has not yet been paid out.

These two Accounts Payable numbers will cancel each other out, except for the difference in value between the two.

That difference is recorded as the Accounts Payable: Inventory adjustment in the Cash Flows from Operating Activities.

- Accounts Payable: Inventory: Year 2: $511
    - (Accounts Payable: Inventory - Difference between 2 years, Cash Flow Statement)

Accrued Wages, Payroll Taxes, and Benefits is an adjustment to similar to Accounts Payable.

The members and employees will not be paid for their 2-week work period at the end of the year until the first of the following year.

The Co-op will still have the cash for this expense at year-end, which needs to be added back into Cash from Operating Activities.

The value of this 2-week work period is calculated on the bottom of the Cash Flow Statement, by dividing the Annual Totals for Wages, Payroll Taxes, and Benefits by 26, the number of 2-week pay periods in the year.

- Accrued Payroll, Payroll Taxes and Benefits: $10,900
  - (Accrued Payroll, Payroll Taxes and Benefits, Cash Flow Statement)

Notice that in subsequent years the same reporting shortcut that is used for Accounts Payable adjustments is used for Accrued Payroll, Payroll Taxes and Benefits.

- Accrued Payroll, Payroll Taxes and Benefits: $10,900
  - (Accrued Payroll, Payroll Taxes and Benefits – Difference between 2 years, Cash Flow Statement)

Because there is no cash outlay for the annual depreciation expense, the cash is adjusted by this amount.

- Depreciation: $5333
  - (Annual Depreciation, Capital Sources & Uses worksheet)

Because corporate income tax will not be paid until the following year, the cash is adjusted by this amount.

- Income Tax Payable: $425
  - (Corporate Income Taxes, Income Statement)

Cash Flows from Investing Activities

The Cash Flows from Investing Activities reflects cash payments for Asset Purchases or Leasehold Improvements.

- New Asset: Year 1: ($80,000)
  - (New Asset Expense, Income Statement)

Cash Flows from Financing Activities

The Cash Flows from Financing Activities reflects cash transactions related to loan and member equity activity.

The Co-op received cash as a loan from the bank at start-up.

- Cash from Loans: $75,000
  - (Debt/Bank Loan Amount, Capital Sources & Uses)

The Co-op made loan payments on the principal of the loan during the year. Because the interest portion of the loan payment is included as an expense on the Income Statement, no adjustments to the cash flow for that payment are required.

- Total Principal Paid on All Loans: ($8467)
  - (Annual Principal Payments, Loan Repayment)

Member Equity Contributions cover financing activity at start-up, when new members join the co-op, and if the Co-op decides that members need to make additional equity contributions

- Member Equity Contributions: $36,000
  - (Total Member Equity Contributions, Capital Sources &Uses)

As described above, the Net Income on the Income Statement is the starting value for the Cash Flow Statement in a given year. Included in that Net Income is the amount that is the Qualified Allocated Patronage refund for the year. It is paid out after profit allocation decisions are made, in the following year.

- Qualified Allocated Patronage Refunds: Year 1: $0
  - (Distributed Qualified Patronage Refunds, Income Statement spreadsheet)

Note that the numbers do not match in Year 1, because the Year 1 refunds are not distributed until Year 2.

- Qualified Allocated Patronage Refunds: Year 2: ($1503)

The Total Net Cash Flow totals the cash payments and cash receipts from Operations, Investing Activities.

- Total Net Cash Flow: $42,258

The Ending Cash Position totals the Total Net Cash Flow and the Starting Cash Position to calculate the Ending Cash Position.

- Ending Cash Position: Year 1: $42,258

Note that this will be the Starting Cash Position for the following year.

- Starting Cash Position: Year 2: $42,258
  - (Year 1 Ending Cash Position, Cash Flow Statement spreadsheet)

Spreadsheet: Balance Sheet (Point in Time = Year-end)

The balance sheet gives a picture of what the Co-op owns, and owes, at a particular point in time by comparing assets to liabilities and equity. It also provides a picture of how available cash and equity are for future capital investment or distributions to the owners.

The financial condition of the firm
Assets = Equity + Liabilities
Equity = Assets – Liabilities
Equity = at-risk capital

Find the values listed below for Year 1 on the Balance Sheet, and on the source spreadsheet in the parentheses.

Assets

Assets list what the Co-op owns. Current assets can be converted to cash or used by the business within a short period of time, typically a year. The Co-op's current assets are its cash on hand, and its inventory. Fixed assets, such as property or equipment, cannot be easily converted into cash.

Except for land, fixed assets lose value over time as they age and become obsolete.

Cash on the Balance Sheet spreadsheet is equal to the Ending Cash Position on the Cash Flow Statement.

- Cash: $42,254
    - (Ending Cash Position, Cash Flow Statement spreadsheet)

Inventory value at year-end is assumed to be at the same level as at the beginning of the year. The assumption in this simplified model that the Co-op can manage inventory purchasing relative to sales during the year's operations. As a result, the inventory value on the Balance Sheet is the same at year-end for Years 1-5.

- Inventory: $12,000
    - (Inventory, Sources and Uses spreadsheet)

Total Current Assets are the sum of cash and inventory.

- Total Current Assets: $54,258

Fixed Assets show the purchase of an asset in the year it was made. The initial value of that asset is also reported in the years that follow.

- Year 1 Asset Purchase: Equipment/Leasehold Improvements
  $80,000
    - (New Asset Cost, Sources and Uses spreadsheet)

To reflect the amounts that fixed assets has been "used up" in that year, the balance sheet also reports the accumulated depreciation of all assets. Accumulated Depreciation totals the annual depreciation for each asset shown on the Capital Sources & Uses spreadsheet to the total Accumulated Depreciation from prior years.

- Accumulated Depreciation-All Assets: $5333
    - (Annual Depreciation, Sources and Uses spreadsheet)

Total Fixed Assets –Net shows the value of the Fixed Assets after the Accumulated Depreciation is subtracted.

- Total Fixed Assets –Net: $74,667

Total Assets combines the value of current and fixed assets.

- Total Assets: $128,925

Liabilities

Liabilities report what the Co-op owes. Current liabilities are obligations that must be paid within the next year. Long-term liabilities are obligations that must be paid back over multiple years.

Find the values for Liabilities in Year 1 on the Balance Sheet, and on the source spreadsheet in the parentheses.

Income Tax Payable is paid in the year after the income was generated. It is calculated on the Income Statement, using the Corporate Income Tax as % of Net Income percentage on the Revenue & Cost Assumptions spreadsheet.

- Income Tax Payable: $425
    - (Cash Flow Statement spreadsheet)

Accrued Wages, Benefits, and Payroll Taxes is calculated on the Cash Flow Statement, using 2 weeks of the total values shown for Wages, Benefits, and Payroll Taxes on the Income Statement.

- Accrued Payroll and Payroll Taxes: $10,900
    - (Cash Flow Statement spreadsheet)

The Current Portion of Loan(s) totals the principal portion of all loan payments that are scheduled for following year. Those payments calculated on the Loan Repayment spreadsheet.

- Current Portion of Loan(s): $9124
    - (Cash Flow Statement spreadsheet)

Accounts Payable are the total of bills received but not yet paid. In this simplified workbook, that amount is calculated as an inventory purchase representing 14 days of the annual Total Cost of Goods on the Cash Flow Statement spreadsheet.

- Accounts Payable: $9712
  - (Cash Flow Statement spreadsheet)

Member Patronage Refunds are calculated on the Income Statement spreadsheet in the Allocation of Net Income section, using the Distribution Decisions percentages on the Patronage, Internal Cap Accts spreadsheet.

- Member Patronage Refunds: $1503
  - (Cash Flow Statement spreadsheet)

Total Current Liabilities is the sum of the current liabilities listed above.

- Total Current Liabilities: $31,663

Loan Payable is the outstanding balance on the amount of the long-term loan(s). It does not include the interest, which is an expense for the "use" of the money that has been loaned. It does not include the principle payment for the upcoming year, which is included in the current liabilities portion of the balance sheet (see above).

- Year 1 Loan Payable: $57,410
  - (Year 2 Annual Loan Balance, Loan Repayment spreadsheet)

Total Long Term Liabilities is the sum of the Loan Payables for all years.

- Total Long Term Liabilities: $57,410

Total Liabilities is the sum of the current and long term liabilities.

- Total Liabilities: $89,073

Equity

Equity is the money that members have invested in the cooperative, and the profits that have been retained and reinvested in the business. Equity is considered at-risk capital, because it must be used to cover any shortfall between liabilities- what is owed – and the business's assets.

Member Equity Contributions are the required initial equity payments for a worker to become a member. Annual contributions from new members are shown on the Sources and Uses spreadsheet.

The amounts shown on the balance sheet total all member equity contribution activity to date.

- Member Equity Contributions: $36,000
  - (Total Member Equity Contributed, Capital Sources & Uses spreadsheet)

Unallocated Retained Earnings are the portion of the annual net profits that have not been allocated to members, and belong to the Co-op as a whole. Unallocated retained earnings act as a reserve to offset any losses, and can be used for working capital or future capital expenditures.

The amount is calculated on the Income Statement using assumptions from the Patronage, Internal Cap Accts spreadsheet.

- Unallocated Retained Earnings: $1598
  - (Unallocated Income-Net of Taxes, Income Statement spreadsheet)

Qualified Patronage Allocation-Retained is the portion of the net profits allocated to members that the cooperative has retained. Retained member allocations also act as a reserve to offset any losses, and be used for working capital or future capital expenditures.

The amount is calculated on the Income Statement using assumptions from the Patronage, Internal Cap Accts spreadsheet.

- Qualified Patronage Allocation-Retained: $2254
  - (Qualified Patronage Allocation-Retained, Income Statement spreadsheet)

Loss is shown as a separate line item on this balance sheet to illustrate how equity is used to absorb any operational losses. Losses are absorbed by initial member equity contributions during a cooperative business's start-up phase. After the business becomes profitable, any annual loss can be absorbed the unallocated retained income.

An annual loss in operations would be reported as a negative number on the Net Income line on the Income Statement.

- (Loss): $0
    - (Net Income Before Taxes, Income Statement spreadsheet)

III. Scenarios

The following exercises guide the user through making spreadsheet changes in the workbook, and evaluating the effects of those changes using the financial reports that are automatically calculated. Spreadsheet changes are made to the cells shaded green.

A new version of the original downloaded workbook should be created before working through each exercise, to make it easier to compare results with original projections and across scenarios.

The workbook and document use simplified financial and accounting assumptions to illustrate basic cooperative finance and business concepts. They are not intended for use as actual business decision-making tools.

The first two years were successful for the Co-op. The café generated positive net incomes and cash patronage refunds to members. During the second year of operations the store space located next to Main St. Coffee Co-op was vacated.

There has been discussion among members about whether it would be a good investment to expand into the space next store. Some questions include:

- Would the sales increase from the expansion cover the costs?
- How would the Co-op finance an expansion?
- How will the Co-op increase employment in order to staff the extra space?
- How much would sales need to increase for the expansion to be more profitable than continued steady growth in their current location?
- Would the expanded business be profitable enough to consider a wage increase?

The Co-op board has already have created financial projects for Years 3-5 based on sales and expenses in Years 1 and 2. Those projections for Years 4-5 are shown on the spreadsheets in the workbook. The members want to test several other financial scenarios as part of their decision-making process.

To help compare the financial reports across the different scenarios, the board will also use the Revenue & Expense Percentages spreadsheet and the Financial Ratios spreadsheet.

The Revenue & Expense Percentages spreadsheet calculates the revenue and expense categories on the Income Statement as percentages of revenue. This allows the user to compare operating activities that affect business profitability across years.

The Financial Ratios spreadsheet automatically calculates basic ratios that are used to evaluate and analyze the financial statements. Ratios express the relationship of key activities to each other.

Liquidity ratios measure short-term cash flow ability. The ratios indicate how well a business can meet its obligations in a timely way. Solvency ratios measure long-term financial health and stability. They show the relationship of debt, or what a co-op owes, to what it owns in assets, and the relationship of both to what owners have invested in equity.

Exercise 1A.

Save a new version of the worksheet and make the following changes.

The new expansion would add 1200 square feet in additional space. The required improvements and equipment for the expansion are different than those required for the initial start-up.

Expansion improvements are estimated to cost $45,000, less per square foot than the start-up improvements. The useful life of the new assets are expected to be shorter than the start-up assets. The Co-op has the cash reserves to pay for these expenses.

- On the Capital Sources & Uses spreadsheet, enter "$45,000" in cell D3 for a New Asset Expense for Year 3.
- Enter "10" in cell D31 for Depreciation Schedule (Years).

After the expansion, the Co-op is 1,200 sq. ft. larger than the original 1800 sq.ft space.

- On the Revenue & Cost Assumptions spreadsheet, enter 3,000 in cells D44:F44 for Rental Space-Total Square Feet for Years 3, 4, and 5.

The Co-op forecasts a 35% increase in its growth rates in Year 3 resulting from the 67% increase in the gross square footage of the café. Not all of the new square footage can be used for expanded café seating. After the initial increase in sales in Year 3, the Co-op expects growth rates to be slightly slower than those currently forecast for Year 4 and Year 5.

- On the Revenue & Cost Assumptions spreadsheet, change the Coffee Unit Growth and Food Unit Growth for Year 3 to "35" in cells D8, D9.
- Change the Coffee Unit Growth and Food Unit Growth for Years 4-5 to "2" (Cells E8-9 and F8-9).

The Co-op estimates it will need to purchase an additional $6,000 of inventory to support the expansion.

- On the Capital Sources & Uses spreadsheet, enter "6000" in cell D20 forInitial/Additional Inventory in Year 3.

The Co-op assumes that the Annual Increase: Cost of Goods and Annual Increase: Fixed Expenses will continue to be 2% in Years 3-5. No changes for these assumptions on the spreadsheet are required.

The Co-op will need to increase its staff and hours worked to handle the increase in sales. It plans to expand hours for existing part-time employee hours to 20 hours a week. To retain employees, it plans to increase their hourly wage 2.5%, to about $10.75. The Co-op would like to be able to pay a 2.5% increase each year to its part time employees. Because of the increased hours, it is assumed that employees will average 50 weeks of work a year.

- On the Wages spreadsheet, in the Employees section (rows 23-42), enter "2.5" in cells Q24, X24, and AE24 for the % increase in Years 3-5 for wages. The increased Hourly Wage is automatically calculated for existing Part-Time 1-3 employees for Years 3-5.
- Change the Hours/Week for Part-Time 1 - 3 for Years 3-5 by entering "20" in cells S26-28, Z26-28, and AG26-28.
- Change Weeks Worked to "50" in cells Q26-28, X26-28, and AE 26-28. The Hours/Year and Annual Wages are automatically calculated.

The Co-op also plans to hire two additional part-time employees at a starting wage of $10.50/hour to handle the increased business.

- On the Wages spreadsheet, for New Part-Time 4 and 5 (rows 30-31), enter "10.50" in cells R30-31 for Hourly Wage. Wages for Years 4 and 5 will be automatically calculated using the planned percentage increase for those years.
- Add "20" in cells S20-21, Z30-31, and AG30-31 for the Hours/Week.
- Add "50" in cells Q30-31, X30-31, and AE 30-31 for the Weeks Worked.

The Co-op would like to continue to provide benefits to employees as well as Members for Years 3-5 at 25% of Wages. It would like to continue to pay members for 52 weeks of work, which include vacation and sick time. No changes for these assumptions on the spreadsheet are required.

The Co-op would like to maintain the net income distribution of 35% to unallocated retained earnings, and 65% to qualified patronage allocations. It also would like to retain 60% of the patronage allocation. No change is required on the Patronage-Internal Cap Accts spreadsheet.

Does the Income Statement show that the increased sales in Year 3-5 from the expansion are large enough to cover the Year 3 expansion expenses?

Yes. Using these assumptions, the projected Income Statement shows a positive net income. But the net income declines from the previous year in Years 4-5, although Year 5 projected net income is slightly higher than the original forecast.

The Revenue & Expense Percentages spreadsheet shows that fixed expenses as a percentage of net income slightly increase in Years 4-5. The estimated annual inflation rate for fixed costs and the increase in rent for more space are slightly larger than the estimated increase in sales.

What are the effects on the Cash Flow Statement?

The Net Cash Flow for Year 3 is negative, reflecting the capital outlay for the expansion. Net Cash Flows Years 4 and 5 are slightly higher than in the original forecast because of the increase in sales.

However, the Ending Cash Position for Years 4-5 are less, because of the continuing impact of the Year 3 expansion costs.

The liquidity ratios on the Financial Ratios spreadsheet show a minimal Net Working Capital in Year 3 for this scenario. The Current and Quick ratios, which show the ability to make timely payments on obligations, indicate difficulties in cash flows for Year 3. These begin to improve in the following years.

What is the effect on equity, as shown on the Balance Sheet and Patronage-Internal Cap Accts spreadsheets?

The Balance Sheet shows more equity growth through retained member patronage allocations and unallocated retained earnings than in the original forecast.

Because the percentages for net income distribution were not changed, the net income increase from the expansion generates larger dollar amounts of retained equity. Member internal capital accounts show larger balances than the original forecast.

The continued increase in equity compared to the original forecast is also accompanied by a smaller amount of cash in current assets. This is reflected in the liquidity ratios on the Financial Ratios spreadsheet. A greater amount of member equity is invested in the larger amount of long-term assets.

Does the Co-op have the cash reserves to pay back all of the member equity investments at the end of Year 5?

No. The balance sheet shows that the combined initial and retained member equity totals are less than the cash in current assets.

Member equity investments have been used to purchase new assets for the expansion, which supports the business activities that pay member wages and benefits. The increase in equity shown on the balance sheet reflects the growth in long-term assets beginning in Year 3.

Co-op boards must exercise discretionary decision-making about the redemption of member equity. Member equity payments must be evaluated the context of the financial condition and needs of the co-op at any given time. Payments are typically made in installments over time to balance the financial needs of both members and the co-op.

Exercise 1B.

Save a new version of the worksheet from Exercise 1A that included the addition of the assumptions described above. Add the following changes.

The Co-op is wants to evaluate financing the expansion using debt in the form of a $45,000, 5-year bank loan at 7.5% interest beginning in Year 3. This would allow the Co-op to maintain higher cash reserves for working capital, future other investments or returning some portion of retained member equity.

- On the Capital Sources & Uses spreadsheet, enter "45,000" in cell D20 for the Bank Loan Amount.
- Enter "5" in cell D21 for Loan Duration.
- Enter "7.5" in cell D22 for Loan Interest Rate.

What are the effects of the loan on the Income Statement spreadsheet?

Because second loan has increased interest expenses, the Income Statement shows slightly smaller net income in Years 3-5 compared to Exercise 1A.

The Revenue & Expenses spreadsheet shows that Interest Expense as a percent of sales increases slightly, decreasing the Net Income before Taxes percentage.

What are the effects on the Cash Flow Statement?

The Cash Flow Statement shows Ending Cash Positions that are better than those in Exercise 1A. The Co-op does not use its cash reserves for the expansion. Total Net Cash Flows for Years 4-5 are smaller, reflecting the smaller difference between the net cash that business operations bring in *and between the cash used for loan financing activities, including principle payments.*

The liquidity ratios on the Financial Ratios spreadsheet shows more Net Working Capital in Year 3, although lower figures than in the original forecast. The Current and Quick ratios are similar to Exercise 1A by Year 5.

How do the changes affect the Balance Sheet and Patronage-Internal Cap Accts spreadsheets?

Current and Total Assets by Year 5 are higher because of stronger cash reserves. Liabilities have increased because of the second loan expenses, while the equity position of members has decreased.

The solvency ratios on the Co-op Financial Ratios spreadsheet reflect the higher debt to equity and debt to asset ratios, which decreases the ownership ratio.

Because the net income decreases in Years 3-5, patronage allocations are correspondingly smaller than in 1A. The internal capital accounts for each member show cumulative retained equity that is slightly lower than in scenario 1A, but is higher than the original forecast.

Exercise 1C.
Save a new version of the worksheet from Exercise 1B, which includes the addition of the expansion assumptions described in Exercise 1A and the loan assumptions described in Exercise 1B.

One of the part-time workers is interested in full-time membership as the Co-op expands. The Co-op is concerned about its ability to find and retain two new part-time workers at 20 hours/week. The Co-op wants to evaluate the possibility of bringing on a full-time member instead. The Co-op is also interested in exploring a wage increase by 2.5% in Years 3-5 for members.

- On the Wages spreadsheet, for New Part Time 4 and 5, change Hours/Week to "0" in cells S30-31, Z30-31, and AG30-31 for Years 3-5.
- Enter "2.5" as the % increase in cells Q2, X2, and AE2 for Years 3-5.
- For New Member 7 on row 10, enter "15.38" in cell R10 for Year 3 Hourly Wage.
- Add "40" in cell S7 for Hours/Week, and "52" in cell Q7 for Weeks Worked. The Hourly Wage will automatically be calculated using the % increase for Years 4 and 5. The same Hours/Week and Weeks Worked will automatically be filled in for Years 4-5.
- On the Capital Sources and Uses spreadsheet, enter "1" in cell D15 for the Number of New Members in Year 3. The initial equity payment of $6000 that the new member is required to pay to join the Co-op will automatically be entered.

What are the effects on the Income Statement?

The Income statement shows a significant drop in profitability in Year 3, breakeven in Year 4 and a loss in Year 5. The increased revenue from the expansion is not sufficient to cover the net increases in wage, benefits, and payroll expenses, as well as the new loan payments.

What are the effects on the Cash Flow Statement?

The Cash Flow statement shows negative net cash flows in Years 4-5. The $6000 member equity contribution in Year 3 offset a portion of the costs from the Year 3 expansion, but the operating revenue isn't sufficient to cover the operating expenses increases due to the wage and benefit increases.

How do the changes affect the Balance Sheet and Patronage-Internal Cap Accts spreadsheets?

The decrease in profitability has decreased cash and the amount of net income that can be retained.

The balance sheet reflects the loss from Year 5. Co-op and member equity absorb the losses shown on the Income Statement. Typically the board would assign the loss to unallocated retained earnings, so that individual member equity accounts would not lose value.

The Financial Ratios page shows that there is more debt compared to equity and to assets in this scenario. The equity to assets ratio shows that the ownership portion of assets declines.

Because the net income decreases/losses in Years 3-5, patronage allocations are significantly smaller than in 1B. The smaller amount of patronage allocations must be split amoung 7 instead of 6 members. The internal capital accounts for each member show cumulative retained equity that minimally increases from Year 3 to Year 5.

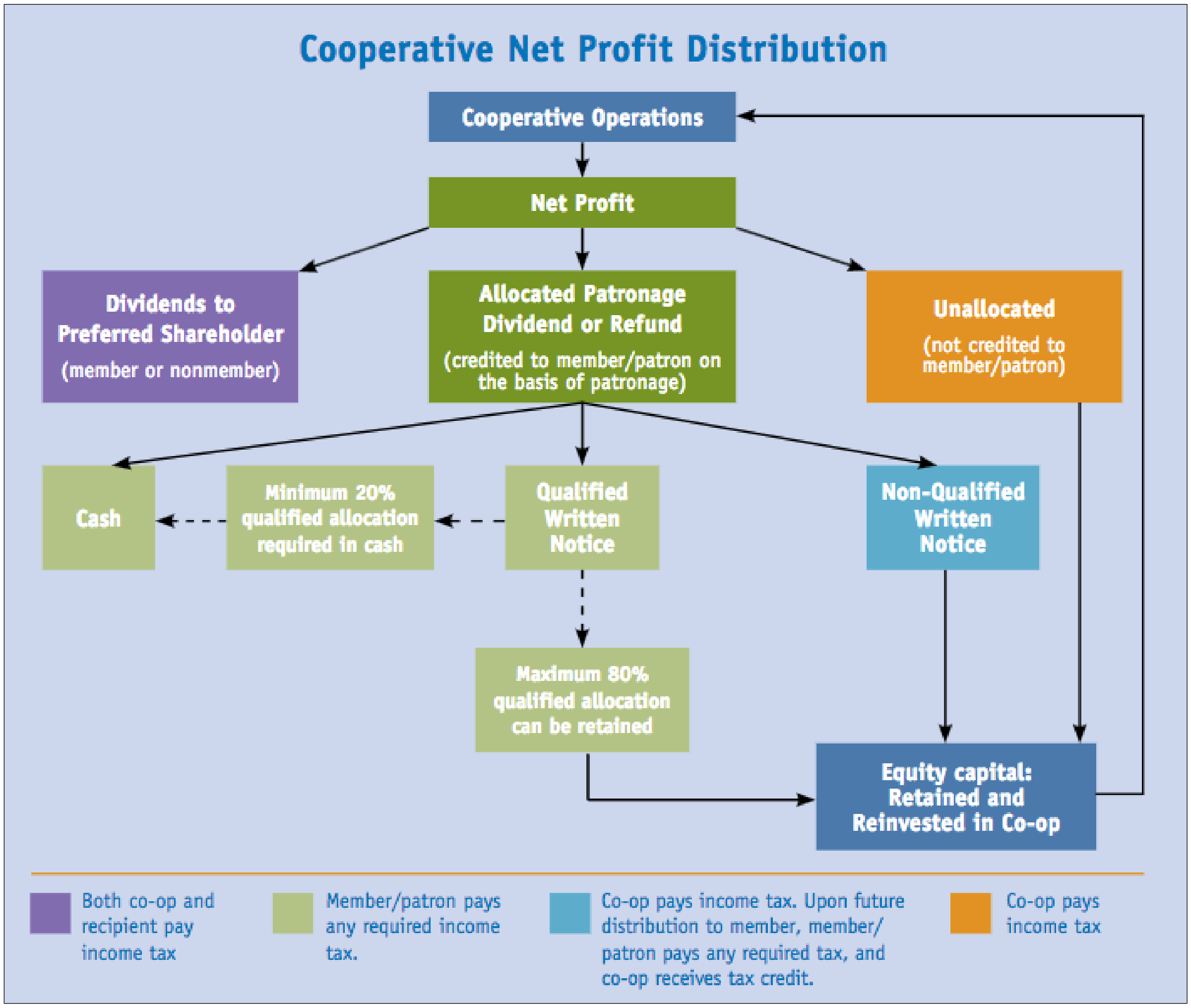
What is the right decision for the Co-op?

The Co-op must balance goals for business growth with those for profitability, and for growth in wages and benefits for its members.

A user can further experiment with revenue, expense, and debt assumptions to create scenarios that support one or more of these goals. Changes in the percent allocations between cash refunds and retained patronage allocations, and in wage increases and benefit percentages will also impact the outcomes.

Use Income Statement, Cash Flow Statement, and Balance Sheet to evaluate those results. The Revenue & Expense Percentages and Financial Ratios worksheets are also useful analytic tools.

Appendix



1. Net Income (Profit) Distribution

As in any business, profit or net income may be distributed to owners, and/or retained and reinvested in the business. Retained earnings provide an ongoing source of equity for a business's working capital, and for capital investment to maintain or grow the business.

In the case of a cooperative, the financial decisions to distribute and retain net income are a primary responsibility of the board of directors.

A cooperative can treat net income, or profits, in several ways. A portion of the annual net income can be designated as unallocated, belonging to the co-op as a whole. The unallocated income is retained and used to offset losses, provide working capital, and fund future expenditures. The Co-op pays taxes on this portion of net income.

A portion of the net income also can be allocated to members on the basis of their use, or patronage. In the case of a worker cooperative, patronage is typically calculated on the amount of labor each worker contributed over year, although other factors may also be used to adjust the patronage formula.

Allocated patronage income can be further divided into distributions and retained income. A portion of allocated patronage income may be retained, and is a method for members to share in their ongoing responsibility to finance the Co-op proportionately. When these patronage allocations are qualified, the member pays individual income tax on both the retained and the distributed portion of the patronage allocation. At least 20% of the allocation must be distributed, to cover the member's tax liability[2].

2. Review: Cooperative Finance Basics

The funds needed to start and operate any business can be in the form of either equity capital or debt capital.

Debt capital refers to loans, bonds or credit that is borrowed from banks, other financial institutions, members or individuals that must be paid back

---

[2] Patronage allocations may also be treated as nonqualified, and are retained by the cooperative for an indefinite period. The cooperative pays the income tax. Should the cooperative pay out these nonqualified allocations at some time in the future, the cooperative would receive a tax credit, and the member would pay income taxes at the individual rate. This training tool does not work with this third option.

to the lender with interest over time. It does not give the lender ownership rights.

Equity capital is money invested in an enterprise with no guaranteed return. Equity investors typically receive some level of ownership and control, and a share of the business's profit, because equity capital is at risk if the business is not successful.

In the case of a cooperative, members, as owners, provide equity capital in proportion to their use of the cooperative. It is part of members' obligation as owners to share in business risk as well as business profitability.

Cooperatives raise equity capital from members in several ways.

- Selling member common stock or certificates.
  While this typically is a requirement for membership, it is not a significant source of ongoing equity capital for established cooperatives, nor the primary source for start-up capital for a new co-op.

- Selling preferred stock to members and non-members.
  When larger amounts of capital are needed for start-up or expansion, cooperatives may sell preferred stock to members and non-members. Preferred stockholders may receive dividends based on the performance of the cooperative and the approval by the board of directors. Most state cooperative statutes limit dividends at 8% or under.

- Allocated and unallocated equity.
  To meet the ongoing need for capital, established cooperatives, like other businesses, will reinvest some portion of annual net profits back into the business. In the case of a cooperative, this type of equity can either be allocated or unallocated.

Allocated equity is the portion of the annual net profit that is credited to each member's account based on the member's use, or patronage, of the co-op that year. Allocated equity is distributed in several different ways, depending on the cooperative's capital needs, its tax position and type of business. The portion that is distributed back to the patron is often referred to as the patronage refund.

Allocated equity rarely earns interest for the members. However, there is the expectation that the cooperative will redeem allocated equity at some point in the future, based on a redemption plan developed by the board of directors. Equity redemption plans can be one of the most challenging aspects of cooperative finance.

A portion of the net profit may also be designated as unallocated equity. Unallocated equity is not credited to individual member accounts, and is directly reinvested in the cooperative, which is responsible for the taxes. Another source of unallocated equity is from the profits earned by doing business with non-members.