Chap 19: Capital and Credit

Brenda and Matt have arranged to rent 200 acres of land from Brenda’s grandmother. They will need some funding for crop inputs. She has also offered to sell them the land, instead.

1. Where can they go to get financing to purchase the farm?
2. Where can they get financing for crop inputs?
3. How much will their payments be?
4. How will this affect their profits and cash flow?

Sources of Farm Credit

- Commercial banks
  - Operating loans
  - Some real estate loans
  - Loan customer deposits
  - Can borrow from the Federal Reserve
- Farm Credit System (cooperative)
  - Both operating and real estate
  - Sells bonds to obtain loan funds

Sources of Farm Credit

- Insurance companies: real estate
- Farm Service Agency (US Dept Ag)
  - Direct loans to high risk farmers
  - Guarantee commercial loans
  - Beginning farmer loans
  - Marketing loans on grain
- Input suppliers
  - Crop inputs. May purchase inputs for borrowers, too.
- Machinery and equipment dealers
- Individual loans
  - Personal loans
  - Installment contracts for land sales

U.S. Market Share

Farm Real Estate Loans

- Individuals: 8%
- Life Ins. Co.: 10%
- Banks: 32%
- Farm Credit System: 42%
- Farm Service Agency: 2%

U.S. Market Share

Farm Non-real Estate

- Individuals: 24%
- Farm Credit System: 31%
- Farm Service Agency: 3%
- Banks: 53%
Beginning Farmer Programs
- Farm Service Agency (USDA)
- Iowa Agricultural Development Authority
  - Must be 18, active farmer
  - Net worth under $600,000
  - Loans for land, machinery, breeding livestock
  - State sells tax-free bonds, lower interest
  - Commercial lender services

Loan Repayment Plans
- Single Payment Loan
  - Principal plus interest
  - Interest = principal owed x interest rate x time
  - Example: $50,000 borrowed from April 1 until October 1 at 9%. How much is the payment?
  - $50,000 x .09 x 6/12 = $2,250 interest
  - Total payment is $52,250.

Line of Credit
- Draw out funds as needed
- Maximum limit set by lender, based on collateral and cash flow budget
- Repay as income is available
  - Interest first, then principal

Line of Credit Example
- March 1: borrow $50,000. Balance=$50,000
- June 1: borrow $30,000. Balance = $80,000
- December 1: repay $40,000
- Pay interest first
  - $50,000 x 8% x 3/12 = $1,000
  - $80,000 x 8% x 6/12 = $3,200
  - Total interest paid $4,200
- Principal repaid = $40,000 - $4,200 = $35,800
- Balance = $80,000 - $35,800 = $44,200

Amortized Loans
Paid back in multiple payments (installments)
1. Even principal payments, declining interest.
2. Even total payments, declining interest and increasing principal
A balloon payment may be attached to either type.
Financial Management

- Liquidity
- Solvency
- Profitability

**Balloon Payment Loan**

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<th>Year</th>
<th>Principal</th>
<th>Interest</th>
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<tr>
<td>1</td>
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<td>$1,500</td>
</tr>
<tr>
<td>2</td>
<td>$4,000</td>
<td>$1,000</td>
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<tr>
<td>3</td>
<td>$6,000</td>
<td>$500</td>
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<tr>
<td>4</td>
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<tr>
<td>5</td>
<td>$10,000</td>
<td>$0</td>
</tr>
<tr>
<td>6</td>
<td>$12,000</td>
<td>$0</td>
</tr>
<tr>
<td>7</td>
<td>$14,000</td>
<td>$0</td>
</tr>
<tr>
<td>8</td>
<td>$16,000</td>
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**Liquidity**: Having Enough Cash Available at the Right Time

- **Working Capital**
  - Current Assets minus Current Liabilities
  - Need 25 - 50% of total expenses
- **Current Ratio**
  - Current assets divided by Current Liabilities
  - Need 2.0 or better
  - Cash flow budget

**Factors Affecting Liquidity**

- **Poor profitability**
- **Business growth**
  - Investment comes first, added sales later
  - Technology may not work at first
  - Increasing inventories decreases sales
- **Debt Structure**
  - Length of repayment term
  - Compare % of liabilities that are current and % of assets that are current

**Factors Affecting Liquidity**

- Carryover operating debt from past years
- High cash land costs
  - Mortgage payments, rent, property taxes
  - Compare to typical cash rent payment
- High nonfarm expenditures
  - Compare to typical farm wages and return on investment
**Solvency**: Degree to Which Debts are Secured by Assets
- Measured by:
  - Net Worth in $
  - Debt-to-asset Ratio
- Analyze by:
  - Compare asset collateral for each liability
  - Look at stability of asset values
  - Look at contingent income taxes

**Profitability**: Ability to generate revenue in excess of costs
- Net Farm Income--$
- Return on Assets-% (ROA)
- Production, marketing and cost control skills

**Capital Structure**
- Total Farm Assets: % return on assets (ROA)
- Farm Net Worth (equity) % return on equity (ROE)
- Liabilities (debt capital) % interest rate
- Return to debt capital is fixed (interest rate).
- Return on equity is what's left over.

**Financial Contingency Plan**
- Cash savings
- Credit reserve
- Don't borrow all that you can
- Prepay debt when income is good
- Current assets can be liquidated
- Carry insurance on crops, other assets
- Lengthen repayment terms on loans

**Improving Solvency**
- Retain more net income
- Avoid new borrowing
- Pay off debt
- Asset appreciation

**Maximum Debt-to-Asset Ratio**
\[
\text{Max debt/asset ratio} = \frac{\% \text{ ROA}}{\% \text{ interest rate}}
\]

<table>
<thead>
<tr>
<th>Ex. 1</th>
<th>ROA</th>
<th>Interest Rate</th>
<th>Max. D/A ratio</th>
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<tbody>
<tr>
<td>6%</td>
<td>10%</td>
<td>60%</td>
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<tr>
<td>Ex. 2</td>
<td>3%</td>
<td>12%</td>
<td>25%</td>
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Depends on: profitability of farm (ROA), interest rates on borrowed $
Financial Contingency Plan

- Reduce nonfarm expenses, increase income
- Sell least productive capital assets
- File for bankruptcy (may continue)

Debt can help farms get started and grow, but too much debt increases financial risk and decreases liquidity.

Loan Application Process

- Complete application, references
- Net Worth Statement
- Income Statement or tax returns
- Cash flow budget (?)
- Mortgage or financing statement
- Co-signer (?)