Understanding the Costs of Borrowing

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Overview

- Five C's of credit
- Interest rates and fees
- Term, amortization, and compounding periods
- Repayment
- Loan types
- Refinancing and loan structure

"You should not be afraid of debt, it is a tool that, if managed correctly, will help obtain your goals and improve the financial performance of your business."

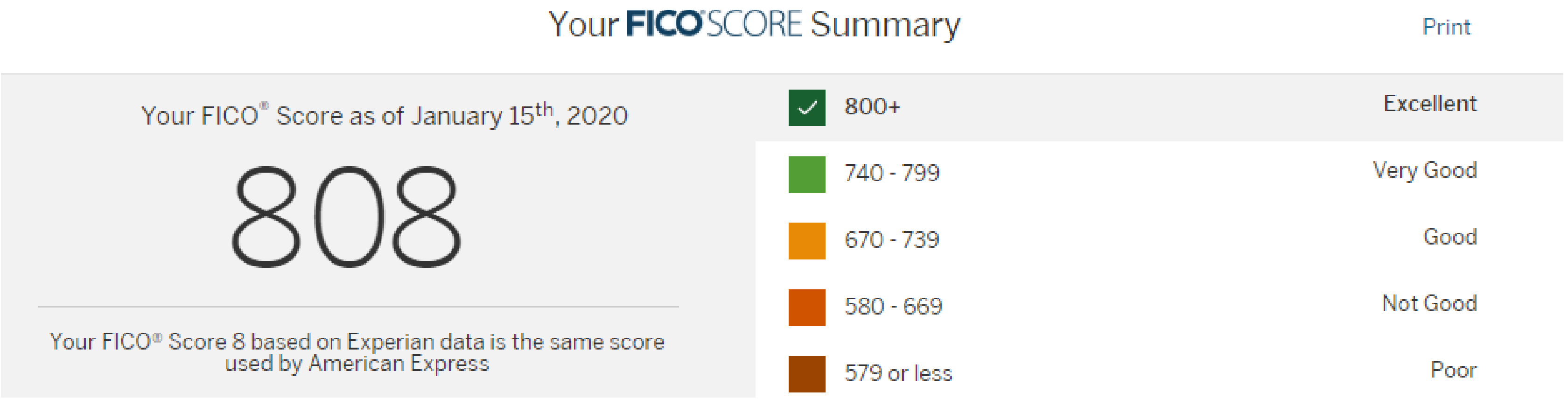
5 C's of Credit

- Capacity
  - Ability to repay the loan
  - Debt-to-income ratio or debt service capacity (>1.0)
- Capital
  - Down payment or equity
  - Debt-to-asset; debt-to-equity
- Collateral
  - Assets pledged as an alternative source of repayment
  - Loan-to-value
- Character
  - Repayment history / credit score
- Conditions
  - Use of loan proceeds, state of the agricultural economy, industry trends

These will impact your access to credit, repayment terms, interest rates, fees, and borrowing conditions.

Taxes and Credit Scores

- Two things you / your lender don't want to mess up!
  – Credit score ie. FICO scores range from 300–850
    - Why would business owners have lower credit scores?
    - Make sure your spouse/children establish credit scores
  – Taxes (IRS problems can be a nightmare)



Interest Rates

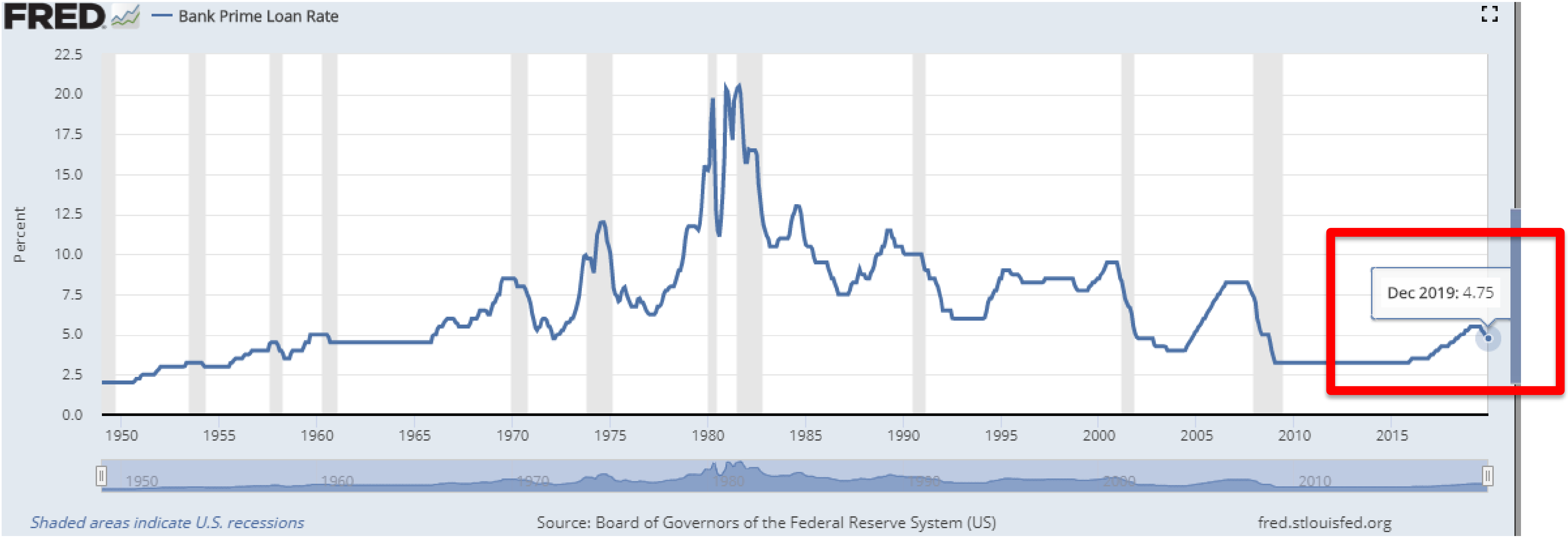
- Prime rate / federal funds rate
- Fixed
- Variable
- Reoccurring and one-time fees
- Annual percentage rate (APR)

Prime Rate & Federal Funds Rate

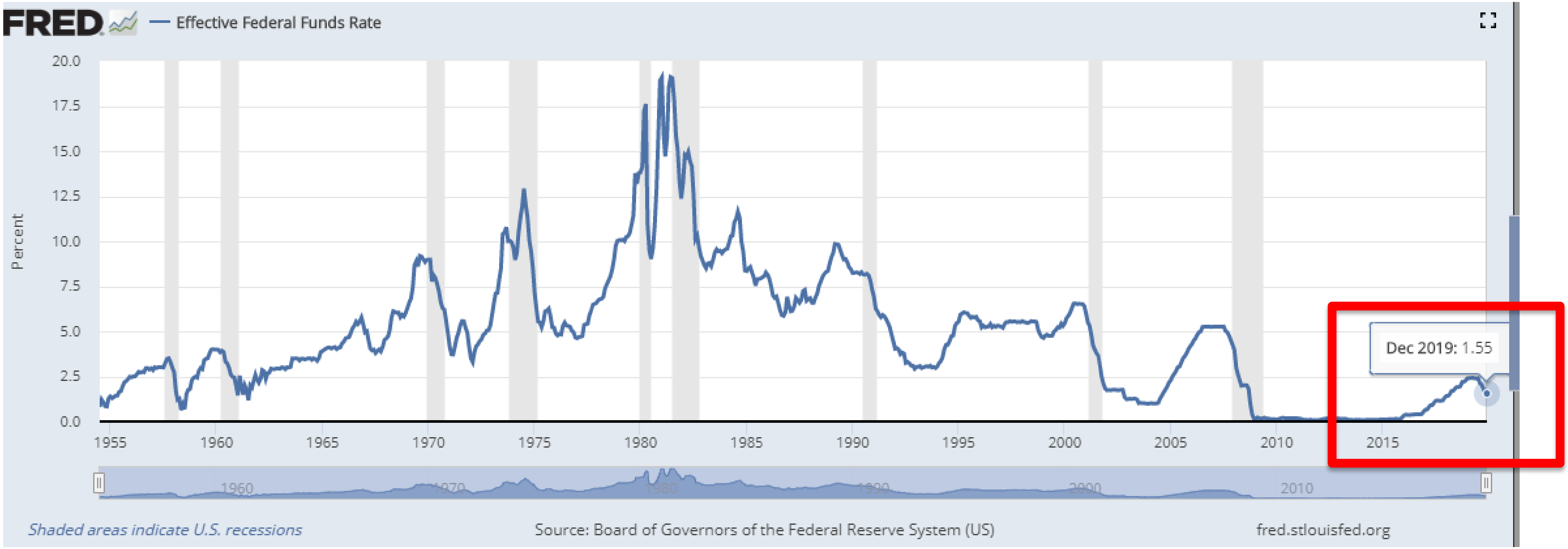
- The **prime rate** is the interest rate that commercial banks charge their most creditworthy corporate customers.

- The **federal funds overnight rate** serves as the basis for the prime rate, and prime serves as the starting point for most other interest rates.

Bank Prime Lending Rate



Federal Funds Rate



Variable Interest Rate

- Interest rate changes with movements in a benchmark interest rate (prime lending rate or federal funds overnight rate).
  - Make sure you understand what is specified. (ie. 3.2% difference in Dec 2019).
- Example.
  - Loan note at: Prime + 2.0 (prime rate is 3.5%).
  - Initial rate is 5.5%.
  - Prime rate increases 0.5% new interest rate is 6.0%, effective immediately.
  - Monthly/annual payment is adjusted up or down to reflect the higher or lower interest rate (usually term or amortization schedule will not automatically be adjusted).

Fixed Interest Rate

- Interest rate does not change for the term of the loan.

- Fixed interest rates can be used by credit cards, operating, machinery, livestock or buildings and land.

Fees

- **Recurring Fees** - happens when a lender automatically charges a borrower for specified products or services on a prearranged schedule.
  - Recurring fees requires the lender to get the borrower’s initial permission.
- **One-time Fees** - is a cost of borrowing that occurs at the a specified time and is not repeated over the duration of the loan agreement.
  - Examples: document preparation fees, appraisal fees, loan origination fees.

Annual Percentage Rate

- An annual percentage rate (APR) is the annual rate charged for borrowing.
- APR is expressed as a percentage that represents the actual yearly cost of funds over the term of a loan.
  - This includes any fees or additional costs associated with the transaction but does not take compounding into account.
- As loans or credit agreements can vary in terms of interest-rate structure, transaction fees, late penalties and other factors, a standardized computation such as the APR provides borrowers with a bottom-line number they can easily compare to rates charged by other lenders.

Annual Percentage Rate

- Formula and Calculation

- $APR = \dfrac{\frac{(Fees+Interest)}{Principle}}{n} \, x \, 365 \, x \, 100$
- Where:
  - Fees = total estimated fees paid over the life of the loan
  - Interest = Total interest paid over the life of the loan
  - Principle = the amount borrowed
  - n = number of days in loan term

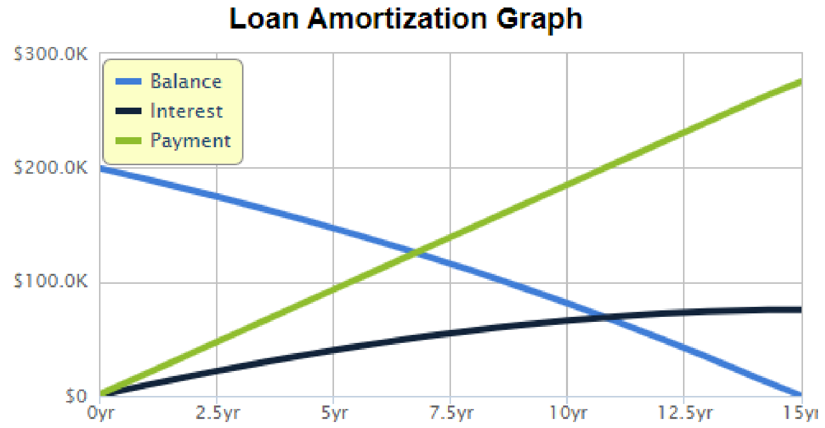
Term vs Amortization

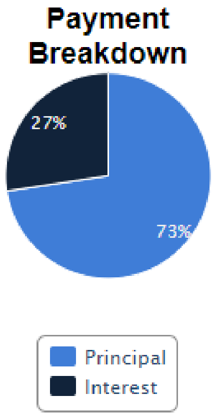
- Term = The length of time you are committed to a mortgage rate, lender, and conditions set out by the lender.
- Amortization = The length of time if takes you to pay off your entire mortgage.
- Term and amortization can be the same duration or term can be less than amortization.
- ie. 36/60 = 36 month term and 60 month amortization.

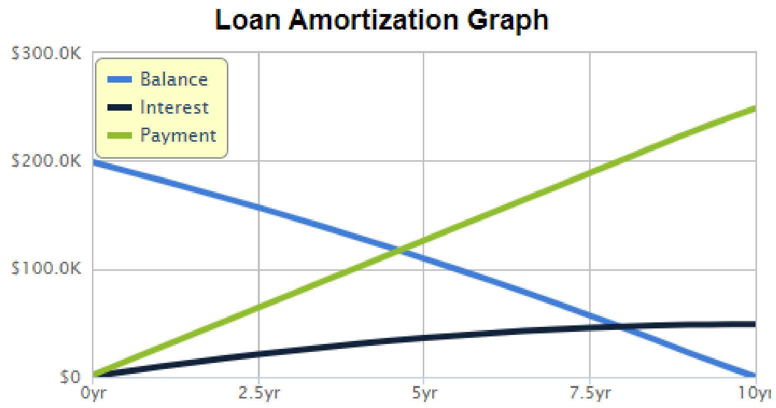
Term and Amortization

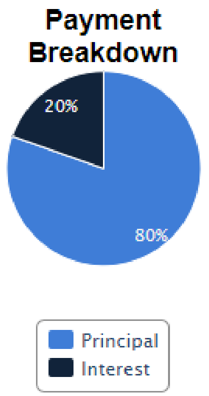
- A shorter term can provide risk/reward based on current interest rate offerings and expectations.
- Amortization should never exceed the useful life of the asset.
- Longer amortization schedules reduce annual/ monthly payments, at the expense of greater interest paid (reduced cash flow requirements).
- Short amortization schedules increase annual / monthly payments, saving interest expense (greater cash flow requirements).
- Allow for sufficient amortization to avoid cash flow stress when possible.

Amortization Schedule ($200,000; 4.5%; 15 vs. 10 yr Amortization)









Payment $18,360
Total Interest = $75,398

Annual Amortization Schedule

Annual Schedule | Monthly Schedule

	Beginning Balance	Interest	Principal	Ending Balance
1	$200,000.00	$8,804.52	$9,555.36	$190,444.68
2	$190,444.68	$8,365.57	$9,994.31	$180,450.39
3	$180,450.39	$7,906.41	$10,453.47	$169,996.97
4	$169,996.97	$7,426.19	$10,933.69	$159,063.31
5	$159,063.31	$6,923.91	$11,435.97	$147,627.37
6	$147,627.37	$6,398.52	$11,961.36	$135,666.06
7	$135,666.06	$5,849.04	$12,510.84	$123,155.25
8	$123,155.25	$5,274.29	$13,085.59	$110,069.70
9	$110,069.70	$4,673.14	$13,686.74	$96,383.00
10	$96,383.00	$4,044.38	$14,315.50	$82,067.53
11	$82,067.53	$3,386.72	$14,973.16	$67,094.42
12	$67,094.42	$2,698.87	$15,661.01	$51,433.44
13	$51,433.44	$1,979.42	$16,380.46	$35,053.00
14	$35,053.00	$1,226.89	$17,132.99	$17,920.04
15	$17,920.04	$439.80	$17,920.08	$0.00

Payment $24,873
Total Interest = $48,732

Annual Amortization Schedule

Annual Schedule | Monthly Schedule

	Beginning Balance	Interest	Principal	Ending Balance
1	$200,000.00	$8,668.48	$16,204.76	$183,795.27
2	$183,795.27	$7,924.05	$16,949.19	$166,846.10
3	$166,846.10	$7,145.41	$17,727.83	$149,118.28
4	$149,118.28	$6,330.99	$18,542.25	$130,576.05
5	$130,576.05	$5,479.14	$19,394.10	$111,182.00
6	$111,182.00	$4,588.18	$20,285.06	$90,896.99
7	$90,896.99	$3,656.33	$21,216.91	$69,680.08
8	$69,680.08	$2,681.62	$22,191.62	$47,488.48
9	$47,488.48	$1,662.14	$23,211.10	$24,277.40
10	$24,277.40	$595.81	$24,277.43	$0.00

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Compounding Period

- A compounding period is the span of time between when interest was last compounded and when it will be compounded again.

- Annual compounding means that a full year will pass before interest is compounded again. When interest compounding occurs, interest is added to the principal (or payment) on a loan.

- A lender may engage in more aggressive monthly or quarterly compounding, which increases the amount to be repaid by the borrower.

Compounding Example

- The interest on a $200,000 mortgage compounded monthly or annually.
- If the annual interest rate on that mortgage is 6%, the periodic interest rate used to calculate the interest assessed in any single month is 0.06 divided by 12, working out to 0.005 or 0.5%.
- If the mortgage is paid annually, but compound monthly you are paying interest on interest.

Interest Rate = 6% (0.5% per month)		
	Compounded	
Compounding Periods	Monthly	Annually
Initial Balance	200,000	200,000
1	201,000	212,000
2	202,005	
3	203,015	
4	204,030	
5	205,050	
6	206,076	
7	207,106	
8	208,141	
9	209,182	
10	210,228	
11	211,279	
12	212,336	
Payment	36,000	36,000
Ending Balance	176,336	176,000

Repayment

- Repayment period (weekly, monthly, semi-annually, or annually) should coincide with the frequency of cash flow from your operation.
  - In some cases this may coincide with income generated from the financed asset.

- Do you have multiple sources of repayment?

- Payment timing – should be modified to occur after income is received (avoid payment residency time in an operating loan or other short term debt instrument).
  - 1-5 days after a milk check is received.
  - November, December, or January for crops (consider tax implications in your loan repayment strategy).

Fixed Principle + Interest Payments

- Example: $200,000 at 4.5%; 5 year.
  - Y1 ($160,000) = $40,000 + $9,000 = $49,000.
  - Y2 ($120,000) = $40,000 + $7,200 = $47,200.
  - Y3 ($80,000) = $40,000 + $5,400 = $45,400.
  - Y4 ($40,000) = $40,000 + $3,600 = $43,600.
  - Y5 ($0) = $40,000 + $1,800 = $41,800.

- Payment (does not change) = $44,743 each year.

Prepayment

- Determine if prepayment of the loan can occur without penalty (ie prepayment fee).

- Maintain payment flexibility if possible.
  - Add 1-2 years on amortization to lower the annual payment, rather than stress cash flow if prepayment without penalty is available.

Types of Farm Credit

- Revolving credit
  - Credit cards, operating loans, supplier lines of credit etc.
- Intermediate loans
  - Machinery and livestock
- Long-term loans
  - Buildings and farm infrastructure
  - Land / mortgages

Credit Cards

- Every farm should have one…….if it is used correctly.
  - Appropriate limit ~ annual farm expenses / 12 months
  - Reward points, cash back, or dividend
  - Fees (annual or maintenance fee)
  - Interest rate (if you are using a credit card correctly this becomes irrelevant). Average interest rate on a credit card is 17.3%!
- Pay **full balance** monthly on time.
- Beware of purchases that add to the price of the product or service if a credit card is used.

Credit Cards

- Is your credit card a fixed or variable and what is the APR?
- Can be either fixed or variable
  - For example,
    - Variable - the bank/credit card provider charges a 15% margin and the prime rate is 5%, the borrower pays a 20% interest rate.
    - Fixed - bank charges a flat interest rate. ie. 18.5%

Credit Cards

- Make sure you understand how your credit card fees and interest applies
  - For example, cash back typically immediately starts accruing interest purchases do not.

New Balance **$2,683.32**
Minimum Payment Due **$53.66**

Payment Due Date **02/05/20 ‡**

‡**Late Payment Warning:** If we do not receive your Minimum Payment Due by the Payment Due Date of 02/05/20, you may have to pay a late fee of up to $39.00 and your APRs may be increased to the Penalty APR of 29.99%.

Minimum Payment Warning: If you make only the minimum payment each period, you will pay more in interest and it will take you longer to pay off your balance. For example:

If you make no additional charges and each month you pay...	You will pay off the balance shown on this statement in about...	And you will pay an estimated total of...
Only the Minimum Payment Due	10 years	$5,671
$100	3 years	$3,608 *(Savings = $2,063)*

Hilton Honors Points
Earned this Period
11,505

For more details about Rewards, please visit **americanexpress.com/rewardsinfo**

Account Summary

Previous Balance	$4,400.59
Payments/Credits	-$4,400.59
New Charges	+$2,683.32
Fees	+$0.00
Interest Charged	+$0.00
New Balance	**$2,683.32**
Minimum Payment Due	**$53.66**
Credit Limit	$21,100.00
Available Credit	$18,416.68
Cash Advance Limit	$3,700.00
Available Cash	$3,700.00

Days in Billing Period: 30

Customer Care

Pay by Computer

Credit Cards (musts)

- **<u>Pay NO interest</u>**
- No cash advances
- Minimize fees subject to rewards.

Fees

	Amount
Total Fees for this Period	**$0.00**

Interest Charged

	Amount
Total Interest Charged for this Period	**$0.00**

About Trailing Interest

You may see interest on your next statement even if you pay the new balance in full and on time and make no new charges. This is called "trailing interest." Trailing interest is the interest charged when, for example, you didn't pay your previous balance in full. When that happens we charge interest from the first day of the billing period until we receive your payment in full. You can avoid paying interest on purchases by paying your balance in full and on time each month. Please see the "When we charge interest" sub-section in your Cardmember Agreement for details.

2019 Fees and Interest Totals Year-to-Date

	Amount
Total Fees in 2019	$95.00
Total Interest in 2019	$0.00

Interest Charge Calculation

Your Annual Percentage Rate (APR) is the annual interest rate on your account.

	Transactions Dated From	To	Annual Percentage Rate	Balance Subject to Interest Rate	Interest Charge
Purchases	01/12/2019		20.24% (v)	$0.00	$0.00
Cash Advances	01/12/2019		26.74% (v)	$0.00	$0.00
Total					**$0.00**

(v) Variable Rate

Operating Loans

- Should revolve annual and are renewed on an annual basis.
  - Fee disclosures
    - Loan administration fee
    - Annual review or maintenance fee
    - Document preparation fee
  - Security assignment of crops, livestock, cash instruments, account receivable, machinery or land and buildings.
    - The security pledged, farm's financial situation, and ability to repay should be reflected in the interest rate and fees assigned by the lender.

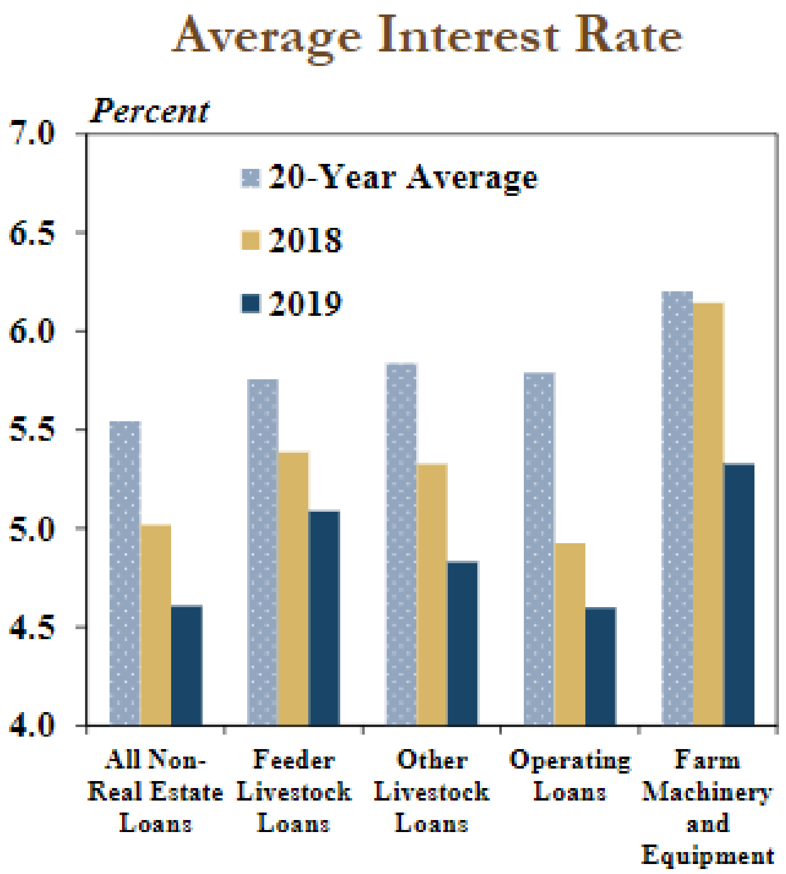
What should my operating loan limit be?

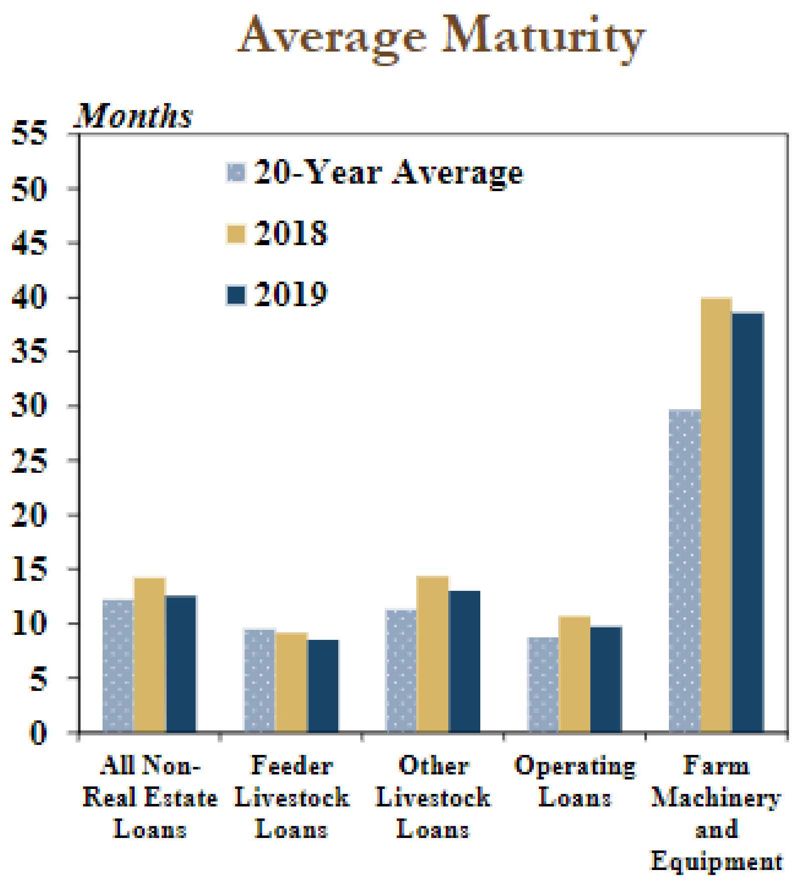
- Depends on all of the farms short term liabilities (input supplier etc)

- Farm enterprise specific.
  - Multiple enterprises can skew operating loan requirements.
    - For example:
      - Dairy should be less than 100% of your “typical” milk check.
      - Crops up to 75% of your annual production expenses.

- If you are always at or approaching your operating limit you have one of three problems:
  1. Limit is too low.
  2. Loan structure / capital expenditures have not been termed out.
  3. Lack of profitability.

Farm Loan Terms at Commercial Banks, Fourth Quarter





Source: Agricultural Finance Databook, Tables A.4. and A.5.

Machinery and Equipment Loans

- Dealer financing may be beneficial.
  - Understand the terms and conditions.
- Revolving cap loans
- Down payment requirements.
- Amortization should not exceed useful life.
- Avoid inverted interest rate scenarios.
  - If your machinery loan interest rate is higher than your operating loan interest rate, what are you tempted to do?
  - Avoid paying debt to quickly hurting working capital and cash flow.
- Avoid financing redundant equipment and liquidate unproductive assets.
- Do not buy equipment if it is only to avoid income taxes!
- Attend John Walton’s “Equipment Purchase Decision Process.”

Land Loans / Mortgages

- Should I be buying this land?
  - Does it fit in my operation?
  - Can it pay for it self? Can the operation afford the payments?
  - Can I afford the down payment?
  - What is the optimal amortization interval.
  - Proximity to existing land base (Swap).

- Seek out beneficial credit arrangements (beginning farmer programs etc).

Loan Structure (interest rate highest to lowest)

Operating

Intermediate

Long-term

Ideally interest rates would be lower for long term debt than short term debt; but this is not usually the case due to timing of when debt was occurred and negotiating.

Protect working capital!

Loan Structure: Example

- Operating credit
  - – Credit card limit (expenses/12 months)
  - – Operating loan (annual expenses x 75%)
- Machinery / livestock
  - – Productive assets essential to the operation that generate revenue.
  - – Have a replacement plan for key assets.
- Long term debt
  - – Payment flexibility
  - – Make sure purchases make sense for the operation

Refinancing

- **Refinancing** – when a business revises the interest rate, payment schedule, amalgamates credit, and terms of a previous credit agreement.

- Types of Refinancing
  1. Rate-and-Term Refinancing
     - Payout existing note(s) with a new note at more beneficial interest rate or terms.
  2. Cash-Out Refinancing
     - The underlying asset collateralizing the loan increases in value.
     - The transaction involves withdrawing a portion of the value or equity in the asset in exchange for a higher loan amount.
  3. Consolidation Refinancing
     - Can be used when a farm obtains a single loan at a rate that is lower than their current average interest rate across several credit products.
     - Can reduce average annual/monthly payments to reduce debt servicing requirements (at the expense of time and interest paid).
     - Improve terms and conditions compared to previous loan(s).

Refinancing

- May not solve fundamental issues with profitability in an operation.
  - In which case you signed onto a long term equity drain that will eventually lead to the sale of assets.

- Equity requirements.

- Most lenders are not receptive to doing refinancing every year or multiple times in a five year period.

- Refinancing should be part of a larger financial plan or strategy to move the business forward.

- Do not refinance and think it time to go out and obtain a whole bunch more credit!

Refinancing Example

- Existing ($395,000)
  - Operating credit
    - Credit Card = $20,000 (20.5%)
    - Input supplier = $10,000 (5%)
    - Operating loan (limit $125,000) = $100,000 (6.5%)
  - Intermediate
    - Truck = $25,000; $5,000 (6%)
    - Combine $75,000; $15,000 (5.5%)
    - Baler = $15,000; $5,000 (5.5%)
  - Long-term
    - Land loan = $150,000; $25,000 (5%)

- New ($50,000; $395,000)
  - Operating credit
    - Operating loan (limit $50,000) = $0 (6.5%).
  - Long-term
    - Refinance loan = $395,000; $31,020 (4.9%)

- Annual payments reduced from $50,000 to $31,020.
- Eliminate short term high interest debt with long-term low interest debt.

Tips for Working with Lenders

- Start the relationship early
  - Build honesty and trust
  - Its easier to start small and build a relationship
- Create a narrative
  - Make sure your lender understands your goals and aspirations.
- Communication
  - Share the details of your plan
  - Provide essential information
  - Follow up
- Be punctual
  - Arrange and keep meetings; be organized and try to full fill reporting requirements accurately and timely.
- Make use of his / her expertise
- Talk to your lender if you’re experiencing financial distress

Loan Renewal Checklist

- Your most recent tax return, income statement, and balance sheet.
- Last year’s yield history or crop insurance record for each crop you produce.
- A debt list of all your liabilities with all terms and payments.
- A list of crops/products carried over into the next fiscal year.
- A list of capital purchases.
- A projection and budget for the upcoming crop year.
- A succession plan.

- Discuss any proposed changes to the business or management structure
- Discuss any issues that affected or may affect the financial performance of the business

Outstanding Loans Form

Loan Number	Lender Name	Loan Type*	Loan Description / Asset Purchased	Interest Rate	Payment Schedule **	Payment Date	Payment Amount	Date Loan is Scheduled to be Paid Off	Remaining Principle Balance Start of Year 12/31	Remaining Principle Balance end of Year 12/31	Accrued Interest (1/1 to 12/31)

* Loan types can be listed as operating loan; short-term loan (due in 12 months or less); intermediate loan (due in 1 to 10 years from loan origination); or long-term loan (due 10 years from loan origination).

** Payments can be written as Weekly; Monthly; Bi-Monthly; Quarterly; Annual

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THANK YOU AND QUESTIONS