

**NEGOTIATING FOR BETTER, MORE
APPROPRIATE LOAN TERMS
FOR YOUR FARM BUSINESS**

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This primer is designed to provide a guide to prospective farm borrowers on important lending terms and conditions to guide them in their credit negotiations with their lending institutions. In any credit transaction, the proper packaging of a loan must be ideally beneficial to both the borrower and the lender. A loan transaction provides the borrower with the funds needed to implement business plans and improve liquidity conditions while allowing the lender to earn reasonable income that will help sustain the lending business.

At times, however, the borrower's failure to fully repay his/her loan is a consequence of faulty packaging of loan terms and conditions. Under these situations, the borrower's repayment capabilities given expected cash flow and liquidity conditions either have not been realistically assessed or do not match with the repayment provisions stipulated in the loan covenant.

The choice of specific loan terms and conditions must not only conform to lenders' expectations of their profit and liquidity conditions. More importantly, the lender should carefully adapt certain terms and conditions to a realistic projection of the borrower's financial condition, liquidity structure and repayment capacity. The following sections will discuss several attributes of the loan package that need to be carefully matched with specific borrower types.

A. Loan Maturities and Purpose

Definitions

In terms of maturities, the USDA reports categorize farm credits into farm real estate and agricultural production loans. *Farm real estate loans* may be either intermediate term or long-term in nature. Farm real estate properties and other farm assets are the preferred security for this type of loans that are used for the acquisition of farm assets.

Intermediate-term loans, with terms ranging from 18 months to 10 years, are used to finance the acquisition of such depreciable assets as farm machinery and equipment, breeding livestock and improvements. At times, these loans may also be used to finance additional working capital requirements of the farm business in order to restructure the borrower's balance sheet (Ellinger and Barry).

Long-term loans carry a term of more than 10 years and are used to finance the acquisition, construction and development of land and buildings.

Agricultural production loans are used to cover the farm's short-term liquidity needs and are used to finance operating expenses. This credit facility has short-term maturity, ranging from 3 to 18 months, that ideally matches the length of the agricultural production cycle. Lenders usually package these loans as *lines-of-credit financing* under

a credit commitment. Under this arrangement, the loan covenant stipulates the amount and timing of the disbursements and payments of the loan.

A line-of credit facility could either be revolving or non-revolving. Under a ***revolving line-of-credit***, the borrower may draw on the line more than once as needed subject to a cap on the cumulative amount of the drawings and a specified time period. A ***non-revolving line-of-credit*** entitles the borrower to a specified amount of funds and does not allow successive drawings on the line even after repayment of the drawn funds.

Discussion: Common Pitfalls

Borrowers should always understand that lenders would never make loan decisions that they perceive to be detrimental to their institution's overall financial health. In this regard, the lender only decides to grant a loan under terms and conditions, including the amount and maturity of the loan, that are favorable from the lending institution's perspective.

In times of high income and credit risk in the agricultural sector, the farm lenders normally implement risk management strategies reflected in the nature of credit decisions they make. The following are a couple of possible strategies lenders might implement to protect their interests in a credit transaction.

a. Lending Less Than Requested

A lender may opt to reduce risk exposure to the farm sector by lending less than the amount they usually lend to farm borrowers. Thus, farmers have to make do with borrowed funds less than the amount their businesses actually require. If the farmer is unable to seek elsewhere the remaining amount of funding required by his/her farm, the farmer may not be able to realize the full potential of his/her farm business. There is considerable risk and danger in pursuing a business project even if the amount available to finance the project is less than what is actually required. The borrower stands to lose more by pursuing project plans with deficient funding endowments.

b. Shorter Maturities

A lender may also opt to continue granting exactly the amount of loans requested by farm borrowers but limits the term of the loan. Shortening the term of the loan by even a few years may have detrimental effects on the viability of the farm business. Shorter loan terms result in larger periodic payments for the borrowers, which, in turn, could create cash flow or liquidity problems for the farm. An extreme example is a farmer who acquires new machinery and equipment using the proceeds of a one-year credit line. Machinery investments are usually larger than ordinary operating expenses so that ideally machinery and equipment loans should be financed by intermediate term loans with average maturities of 5 to 7 years. A mismatching of the purpose and term of the loan can create severe liquidity and viability problems for the farm business.

The following example illustrates how (equal) quarterly loan amortization payments for a \$500,000 machinery loan change as the term of the loan is reduced at different interest rate levels:

Table 1: Equal Quarterly Loan Amortization Payments For a \$500,000 Machinery Loan						
Maturity (Years)	6% per annum		8% per annum		10% per annum	
	Quarterly Payment (\$)	% Change from 1 Year Reduction from Previous Longer Term	Quarterly Payment (\$)	% Change from 1 Year Reduction from Previous Longer Term	Quarterly Payment (\$)	% Change from 1 Year Reduction from Previous Longer Term
Seven	22,001		23,495		25,044	
Six	24,962	13.46	26,436	12.52	27,956	11.63
Five	29,123	16.67	30,578	15.67	32,074	14.73
Four	35,383	21.49	36,825	20.43	38,299	19.41
Three	45,840	29.56	47,280	28.39	48,744	27.27
Two	66,792	45.71	68,255	44.36	69,734	43.06
One	129,722	94.22	131,312	92.38	132,909	90.60

The above summary indicates that the quarterly loan amortization increases from a range of about 12% to 94% with every one-year reduction in the term of the loan. The incremental amortization payment becomes increasingly larger as the term of the loan approaches one year. Moreover, increases in interest rates translate to larger absolute increases in loan amortization payments for every one-year term reduction.

It is therefore important for the borrower and the lender to ascertain whether or not the liquidity structure of the farm business will be able to afford increased loan amortizations arising from a reduction in the term of the loan.

B. Payment Arrangements

Farm borrowers should be cognizant of *demand clauses* in the loan agreement. These provisions allow the lender to demand payment from the borrower at any time during the life of the loan.

In the absence of these provisions, loans availed of under a line-of-credit financing arrangement are usually repaid when the borrower has surplus funds during the stipulated length of the credit line.

Repayment of intermediate- and long-term loans, on the other hand, follow a payment (or amortization) schedule prepared by the lender that specifies principal and interest payments (amortizations) to be paid at certain maturity dates over the life of the loan.

There are at least three payments options to consider for the repayment of intermediate- and long-term loans:

- 1) ***Fixed, Equal Payments***: A fixed amount covering principal and interest charges is paid at stipulated amortization dates. This fixed amount is

calculated based on specified interest rate and maturity (term) of the loan. Thus, loan amortizations are fixed and equal over the specified term of the loan. Each loan payment is allocated between principal and interest, with principal payments accounting for larger portions of the equal installment amount as the loan approaches maturity.

- 2) **Fixed Principal Payments:** Under this scheme, the original loan amount is repaid in equal principal installment payments over the life of the loan. Interest charges are then calculated based on declining principal balances. Farm borrowers must evaluate their liquidity and cash flow conditions in considering this payment option. The farm’s ability to adequately cash flow should coincide with the larger initial payments of principal and interest that are typically required under this arrangement. In general, this payment method results in less total interest charges over the life of the loan since a relatively larger portion of the loan amount is retired earlier compared to the fixed, equal payment scheme.

The following table provides a comparison of the loan amortization schedules under the fixed equal and fixed principal payment schemes:

Table 2: Loan Amortization Schedules				
\$500,000 Five-Year Term Loan, 8% p.a. payable annually				
Under Fixed Equal and Fixed Principal Payment Arrangements				
Year	Loan Balance	Principal (P) Payment	Interest (I) Payment	Total P & I Payment
A. Fixed, Equal Amortization				
1	414,772	85,228	40,000	125,228
2	322,725	92,046	33,182	125,228
3	223,315	99,410	25,818	125,228
4	115,952	107,363	17,865	125,228
5	0	115,952	9,276	125,228
B. Fixed Equal Principal Payments				
1	400,000	100,000	40,000	140,000
2	300,000	100,000	32,000	132,000
3	200,000	100,000	24,000	124,000
4	100,000	100,000	16,000	116,000
5	0	100,000	8,000	108,000

Another version of this comparison that calculates amortization payments on a quarterly, instead of annual, basis is presented in Appendix 1 for further reference.

- 3) **Balloon Payment:** These are relatively shorter-term loans. Under this arrangement, initial payments are usually based on a longer amortization period (such as 20 years) under the assumption that at the end of a certain shorter period (for example, after the first five years of the term) the loan

with either be paid off, renewed or re-financed. In other words, at the end of the shorter period agreed upon, the entire unpaid balance of the loan becomes due so the borrower has the option to pay the amount in full or negotiate for new loan terms. Table 3 presents an example of a balloon payment type of arrangement:

Table 3: Loan Amortization Schedule \$500,000 Loan, 8% p.a. payable annually Equal payments for five years (based on 20 year amortization) Balloon Payment at end of fifth year				
Year	Loan Balance	Principal (P) Payment	Interest (I) Payment	Total P & I Payment
1	481,270	18,730	40,000	58,730
2	461,042	20,228	38,502	58,730
3	439,196	21,846	36,883	58,730
4	415,601	23,594	35,136	58,730
5	390,120	25,482	33,248	58,730
Balloon Payment	390,120			

Based on the above example, the borrower either pays the entire outstanding balance of \$390,120 at the end of the fifth year or negotiates for a new set of loan terms. The borrower's decision to negotiate further may depend on interest rate conditions. If at the time of negotiation, interest rates are falling and credit conditions are improving, the borrower may decide to negotiate for more favorable loan terms. However, if interest rates are rising and the credit situation becomes tight, either the newly negotiated loan terms may be unfavorable or the lender may decide not to renew the loan if the borrower's risk rating becomes unfavorable. Again, this scheme needs to be evaluated according to the farm's ability to generate cash flows that will adequately cover loan amortization payments, especially the bulk payment amount required at the end of the term of the loan.

Discussion: Expected Profitability ≠ Liquidity

Again, the borrower and the lender must consider the farm business' cash flow and liquidity structures in choosing the most appropriate amortization plan for the farmer's term loan. A glaring oversight that some people make is to consider only expectations surrounding the profit-generating capacity of a certain business project and ignore the resulting cash flow structure. Expected profitability is not usually translated to favorable liquidity conditions each month or period in the life of a business. Farming provides a perfect example of a business with some cash flow gaps resulting from the gestation of farm production, or that period ranging from the planting of crops till the time they are harvested, marketed and converted into cash that flows into the farm business.

Some farming enterprises have longer gestation periods than others. However, a diversified farm business enjoys the advantage of being able to minimize cash flow gaps

during the production year by planning and coordinating properly the end of the production cycles (marking the period for harvesting and marketing) of the enterprises whereby a certain enterprise is able to generate cash inflows that subsidize the cash outflows of the other enterprises that are either just in the early, middle or later stages of the production process. A more stable cash flow structure for this type of business could well afford either the fixed equal or fixed principal amortization plans.

Highly specialized farm businesses, on the other hand, may have more limited capabilities in spreading out the timing of cash inflows to minimize cash flow gaps. Liquidity management for existing specialized businesses entail building up adequate cash and/or credit reserves to draw upon while waiting to realize revenues from the business. These farms should carefully choose the payment plan most appropriate to their cash flow structure.

C. Interest Rates and Other Loan Pricing Issues

A loan may carry either a fixed or variable (or adjustable) interest rate. A loan may carry a fixed interest rate until the loan is paid off. Other lenders may offer a fixed rate only for a specified period of time, then the borrower and lender negotiate for either a new fixed rate or a shift to variable pricing thereafter.

A variable or adjustable rate loan involves provisions to change the interest rate based on changes in market conditions, a specified index or other factors determined by the lender. The intervals in which interest rates change may also be designated, although in some cases decisions to change the interest rate are at the lender's discretion.

In any case, the borrower should always be aware of the frequency and magnitude of probable changes in the interest rates applied to his/her loan. Moreover, he/she should be able to calculate the effects of such changes on loan payments.

The following concepts are important in the understanding of the pricing of a particular loan. These are features of the loan transaction that farm borrowers may negotiate with their lenders.

- **Rate buy-down:** A reduction in interest rate can sometimes be negotiated with the lender in exchange for a one-time fee paid at the time of the origination of the loan. This arrangement is known as a rate buy-down. The potential benefits of this strategy to the farmer could be evaluated by comparing the present values of payments with and without the rate-buy down scheme.
- **Interest rate index:** This index is used to determine the level of a variable or adjustable rate. Examples of indexes used by lenders include their own average cost of funds, the company's internal rate, one-year Treasury securities rates, 90-day Treasury bills, federal funds rate and the London Interbank Offer Rate (LIBOR). The frequency of change in these indexes varies so the borrower is advised to obtain as much information from the lender about this issue.

- **Margin:** This refers to the percentage points that the lender adds to the interest rate index to determine the price of the loan. Margins are designed to cover the lenders' loan administration costs, the risk premium associated with the borrower's credit risks and the lender's expected profit margin.
- **Caps:** These establish limits on the change in the level of variable or adjustable interest rates.
- **Prepayment Penalty:** This is a fee charged by the lender when the loan is paid before maturity. Some lenders impose this penalty in order to realize the interest income they expect to generate over the life of the loan. This expected income is minimized by unexpected prepayment of the loan, thus the need for such income re-capture mechanism.
- **Late Payment Penalties and Foreclosure Provisions:** A borrower should be aware of penalties associated with late amortization payments as well as grace periods defined in the loan agreements. Also, the borrower should be cognizant of specific conditions of default, such as the extent of delay in payments and non-payment of amortizations.

Reference

Ellinger, P. N. and P. J. Barry "A Farmer's Guide to Agricultural Credit." Center for Farm and Rural Business Finance, University of Illinois at Urbana-Champaign, 2001.

Appendix 1: Quarterly Amortization Schedules Based on Equal Amortization and Fixed Principal Payment Plans

Annual Int. Rate 8.00%
 Quarters 20
 Equal P & I 30,578
 Equal Principal 25,000

Quarter	EQUAL PRINCIPAL & INTEREST PMTS				EQUAL PRINCIPAL PAYMENTS			
	Balance	Principal	Interest	Total	Balance	Principal	Interest	Total
Year 0	500,000				500,000			
Year 1, Qtr 1	479,422	20,578	10,000	30,578	475,000	25,000	10,000	35,000
Year 1, Qtr 2	458,432	20,990	9,588	30,578	450,000	25,000	9,500	34,500
Year 1, Qtr 3	437,022	21,410	9,169	30,578	425,000	25,000	9,000	34,000
Year 1, Qtr 4	415,184	21,838	8,740	30,578	400,000	25,000	8,500	33,500
Year 2, Qtr 1	392,909	22,275	8,304	30,578	375,000	25,000	8,000	33,000
Year 2, Qtr 2	370,189	22,720	7,858	30,578	350,000	25,000	7,500	32,500
Year 2, Qtr 3	347,015	23,175	7,404	30,578	325,000	25,000	7,000	32,000
Year 2, Qtr 4	323,377	23,638	6,940	30,578	300,000	25,000	6,500	31,500
Year 3, Qtr 1	299,266	24,111	6,468	30,578	275,000	25,000	6,000	31,000
Year 3, Qtr 2	274,673	24,593	5,985	30,578	250,000	25,000	5,500	30,500
Year 3, Qtr 3	249,588	25,085	5,493	30,578	225,000	25,000	5,000	30,000
Year 3, Qtr 4	224,001	25,587	4,992	30,578	200,000	25,000	4,500	29,500
Year 4, Qtr 1	197,903	26,098	4,480	30,578	175,000	25,000	4,000	29,000
Year 4, Qtr 2	171,283	26,620	3,958	30,578	150,000	25,000	3,500	28,500
Year 4, Qtr 3	144,130	27,153	3,426	30,578	125,000	25,000	3,000	28,000
Year 4, Qtr 4	116,434	27,696	2,883	30,578	100,000	25,000	2,500	27,500
Year 5, Qtr 1	88,184	28,250	2,329	30,578	75,000	25,000	2,000	27,000
Year 5, Qtr 2	59,370	28,815	1,764	30,578	50,000	25,000	1,500	26,500
Year 5, Qtr 3	29,979	29,391	1,187	30,578	25,000	25,000	1,000	26,000
Year 5, Qtr 4	0	29,979	600	30,578	0	25,000	500	25,500