



Newsletter Article

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LOAN STRUCTURING - FUNDAMENTALS

By Robert Dyck

ABOUT THE AUTHOR(S)

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Introduction

Before we can take out a map and plan a trip, we need to determine where it is we want to go. The same is true in commercial lending. In order to navigate through a financial analysis, you need to have a sense as to what you might expect to encounter along the way. In many instances, as you consider accommodating a borrower's request, you are helping the borrower achieve a business objective or solve a problem.

As lenders, our objective is to make loans that provide a fair return for the risk taken. In doing this, we lend money to assist our customers accomplish their own objectives. They borrow money to allow themselves the opportunity to generate a monetary return that is greater than the cost of the funds they borrow. Our objective is to be repaid on time with interest, which is our monetary return. We hope that our return is greater than our cost of doing business. We meet our objective when the borrower has accumulated adequate cash to pay us. As simple as it sounds the process of determining whether the desired final event will take place is not simple. The Influences on our borrower and the decisions our borrower makes can and will impact the accumulation of cash; our repayment source.

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Bank Fees and Service Charges

From the Customer's Viewpoint 2012 - 2016

Source: J.D. Power Retail Banking Study

July 7, 2017 (12:00 - 1:15 pm ET)



Speaker
Michael Beird
Former Practice Director, J D Power
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Speaker
Wei Zhang
Credit Card Program Manager –
Office of Card Markets
Consumer Financial Protection Bureau

Online Seminar
July 13, 2017
12:00 – 1:30 pm ET



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Philosophy

The business of lending is one of risk-taking. It should be one of calculated risk-taking. The risk in lending is identified as the risk of getting repaid on time and the risk of getting repaid at all. We have made the decision as an institution to make loans. This means we have accepted the premise that in making loans we acknowledge the presence of risk. So, how do we turn the risk in lending into a calculated risk? We do it by developing an understanding of how our borrower accumulates cash (our repayment source) and what elements in the borrower's operating environment can influence the accumulation of cash. This is the heart of what lenders do.

In order to understand the risk involved in lending we must examine the elements that influence our repayment. Our repayment is always a projected or forecasted event. The accumulation of cash and repayment of our loan takes place at some point in the future. Therefore, we must be able to project or test the validity of a projection provided to us. This entire process of understanding influences and validating is referred to as Credit Analysis.

Credit analysis is the process in which borrower needs (loan request) are assessed, actions to be taken to address these needs are examined, projected results of these actions are reviewed in the context of a borrower's operating environment, and a conclusion about repayment is made.

Basics

"Structuring is the building of a definite pattern of organization."

The matching of a borrower's need and the ultimate generation of cash as a repayment source is referred to as Loan Structuring. While the specifics of any given loan transaction cannot be set until after the credit analysis is complete, the basic form can be and needs to be identified before the analysis starts. Basic loan structures are patterned after the generation of cash that provides repayment.

In banking, lending structures are often referred to as credit facilities. These credit facilities have generally accepted forms or characteristics, but individual banks have variations to their names.

Banks typically identify by name a variety of credit facilities, some of which are general categories of loan types with others being sub-categories.

Often, less experienced lenders make the mistake of picking a loan structure, which would be most desirable from the standpoint of the borrower. The selection of an appropriate loan structure should be done on the basis of the borrower's needs and appropriate to the timing and source of repayment. Using the basic loan structures available within the bank as a starting point, then tailoring for the situation is the ideal approach. However, the more customized a facility the more costly and impractical it could become.

GENERAL LOAN TYPES

There are two basic loan types:

-  A loan that will temporarily increase assets and whose repayment will come from the conversion of those assets to cash.
-  Loans where available profits provide repayment over a period of time.

Commercial loans can be divided into one of these two categories; however, the need for variations does exist.

CASH CYCLES

Loan structuring involves matching the characteristics of various structures to the timing of cash availability in the company. Cash availability will occur based upon one of two types of cycles normally experienced by a business.

Each cash cycle represents a specific source of and use of cash. The use relates to the type of assets cash will be used to increase. The source of cash is associated with the liability that provided the cash to the cycle. These cycles will be referred to as Short Term or Trading Cycle and Long Term or Capital Asset Cycle.

The Short Term Cycle is simplest to demonstrate, however, in practice it is the most difficult to analyze. The difficulty stems from the outside influences and internal company decisions that will impact what happens to cash.

A simple example of the Short Term Cycle and the related loan type is a loan to a toy retailer to enable the business to increase its inventory of toys for the Christmas season. Shortly after Christmas the retailer would have accumulated cash to repay the loan.

The Short Term Cycle is depicted by a series of simple balance sheets.



The Long Term Cycle is typically associated with the acquisition of fixed assets. The acquired fixed assets are utilized over time to produce a product or provide a service that is sold. The profit that is generated from the sale of the product or service is used to repay any debt that was incurred to buy the fixed asset. It is the utilization of the fixed asset over a long period of time that produces repayment. Repayment takes place periodically over the life of the asset as profit is generated.

LOAN TYPES

Most banks define Short Term Loans as those, which have a maturity of less than one year. The repayment source of short-term loans is almost always related to cash being generated by a specific occurrence. The planned repayment source for a majority of short-term loans is from the reduction of temporarily higher than normal asset levels. It would be possible, but quite rare, for a short-term loan to be repayable from available

profits in less than one year. The real maturity of a short-term loan should be at that time when the cash is available from the specific occurrence.

Long Term Loans are defined by most banks as loans, which have a final maturity of more than one year. The expression Long Term Loans usually carries the connotation of loans that are amortized on an installment basis, but there are exceptions. Generally, Term Loans are paid in installments from cash, which is the profit that remains after paying all other expenses.

Term Loans are essentially used for any purpose other than purchasing or carrying a temporary increase in assets. These purposes would include fixed assets purchases, the increase in product lines, lengthening of sale terms, shorter purchase terms, acquisition of investments, the purchasing of an additional business, or the need to increase working capital because of rapid growth or under capitalization. Term Loans are often viewed as a supplement to equity. In many situations, a long-term investment might be necessary to enable the borrower to pursue a business objective. Sufficient capital may not be present in the company to complete the investment without the aid of an outside financial source. As a bank, we may extend a loan with the understanding that over time the borrower will retain profits to repay a bank loan, thereby substituting equity for bank debt.

It is logical that the longer the term loan the more probable will be the development of problems.

Because of the bank's concern to become aware of problems to take corrective action, an agreement is made between the bank and the borrower enabling the bank to take action either because of events within the business or because requirements of the bank are not met. These arrangements are customarily referred to as Loan Agreements. Loan agreements vary from informal understandings, informal agreements, standard printed loan agreements, to very formal complex agreements prepared by attorneys. Regardless of the format of the agreement, the agreement has little real value unless the borrower has the capacity and the willingness to abide by the provisions.

The Term Loan payable from profit availability should be based upon proven earnings. Quite often the loan will be used to purchase equipment or another business that is expected to contribute to the availability of profits to repay the loan. While loan approvals are typically based upon demonstrated profits, the structuring of the loan may consider to some degree the profits being generated by the new equipment or the acquired business.

Lines of Credit are an especially beneficial credit facility to borrowers when the borrower is expected to have seasonal or similar self-liquidating credit needs during the year. Generally, a Line of Credit is a commitment to make short-term loans under certain conditions, but subject to cancellation should conditions change. It is stated, usually in an agreement, that the line of credit will not be constantly used and that there will be some time during the year that line will have a zero balance. This is usually expressed as a required number of consecutive days out of debt. If the borrower has lines of credit available from other lenders, the shifting of loans among lenders, does not create proof that the borrowings are really short term. If the borrower does not have other lines available and does have an out of debt period, it is possible that the borrower is merely slowing down payment to trade creditors to accumulated enough cash to pay off the line and meet the out of debt requirement. Examining various other financial activities through the credit analysis process will aid in determining if the achievement of the out of debt period is real or based on some type of manipulation.

IDENTIFYING THE UNDERLYING CAUSE

In the process of analyzing a borrower's request, there are some very basic questions that should be asked. They should be contemplated by the loan officer and used as a guide.

- 🔗 What is the real reason (cause) for the loan? Why does the borrower need to borrow?
- 🔗 What is to the specific planned repayment source?
- 🔗 In the event the loan is not paid from the specific source, what are the alternative repayment sources?

In order to understand what the real reason/cause of the loan is, the loan officer should always know who the loan proceeds will be going to. A loan officer who follows this will not be satisfied with a vague response like "The loan will be used for working capital", or "The loan is needed for expanding sales".

The loan officer should be able to distinguish the real cause from between:

- 🔗 Those needs for cash which would ultimately be paid from normal operations. Cash that revolves through current assets and then is used to pay the current liabilities and expenses with a small amount of profit left over.
- 🔗 Those needs for cash which would not normally be expected to be paid from normal operations.

Some examples of loan needs when it would not be expected that cash accumulated from normal operations would provide repayment:

- 🔗 Payment of unusual or extraordinary liabilities or expenses.
- 🔗 Purchase of equipment that will not yield economic benefit to the borrower.
- 🔗 Buy out a partner or retire stock previously issued by the borrower.
- 🔗 Replace cash depleted by operating losses of the borrower.

Some examples of loan needs when it would be expected that cash from normal operations would retire our loan:

- 🔗 Purchase current assets for seasonal activity or increase current assets permanently.
- 🔗 Payment of normal liabilities.

THE REAL CAUSE OF LOAN NEEDS

1. Purchase or carry increased assets.
2. To pay a liability not related to an increase in assets.
3. To pay an expense not related to an increase in assets.
4. To replace or retire net worth.

Most loan requests result from instances involving the first item listed above; Purchase or carry increased assets. The difference between the two is timing. If a borrower requests a loan to purchase assets, the cause is obviously to purchase. If the borrower has already purchased the assets and wishes to pay the obligation, the real cause of the loan is still to carry those assets. The implications are identical. It is preferable that the borrower requests the loan to purchase the asset rather than waiting until they need the loan to pay the debt.

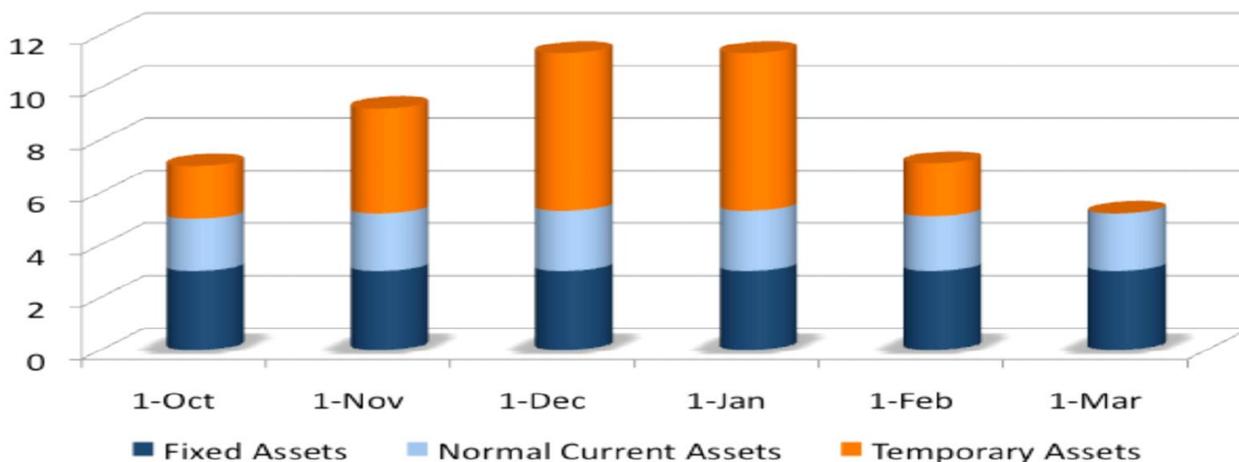
Asset increases can be of a temporary nature or more permanent. The distinction is very important since loans caused by temporary asset increases will usually be repaid through the decrease of those same assets as asset levels return to normal (after a holiday or summer season possibly). Loans caused by the need to purchase or carry assets for a short time, and repaid when those assets convert to cash are sometimes referred to as self-liquidating. Temporary increases might include:

- 🔄 A/R and/or inventory increase due to seasonal sales increase.
- 🔄 A/R and/or inventory increase due to a single large sale.
- 🔄 A/R increases due to expansion of special long credit terms to a specific customer.
- 🔄 A/R increases due to slowing collections or collection problems.
- 🔄 Inventory increase due to an expected shortage of materials.
- 🔄 Large purchase of inventory because of temporary availability.

Permanent increase might include:

- 🔄 Permanent increase in sale volume requiring an increase in A/R and/or inventory.
- 🔄 Permanent lengthening of credit terms offered to customers.
- 🔄 Permanent shortening of credit terms from a supplier.
- 🔄 Change in purchasing habits, including larger purchases for better pricing.
- 🔄 Addition of new or expanded product lines.
- 🔄 Slower inventory turnover because of obsolete, defective or deteriorating inventory.
- 🔄 Replacement of worn or obsolete equipment.
- 🔄 Additional assets for expansion of production capabilities.

The temporary asset increase typically follows a pattern where; 1] Loan proceeds pay for increased inventory, 2] The inventory is sold for more than the purchase price, 3] An A/R is created and then collected, 4] The cash collected is sufficient to pay the bank loan, and 5] There is something left over as profit and available to pay a long- term loan. While profits are certainly desirable and expected from operations a short-term loan is not dependent on profits, just breakeven.



The chart depicts the temporary increase in assets during a seasonal increase in anticipation of demand for the borrower's product. If the borrower is a toy store the increase could be in anticipation of the Christmas shopping season. As sales occur and cash is collected the corresponding bank loan would be repaid.

As noted above, temporary asset increases can be caused by other factors. Using the same chart to illustrate the increase and decrease consider a manufacturer of snowboards. The borrower manufactures boards during the summer months. They offer to sell the boards to retail stores during the summer, but allow the retailers to pay them in January after the winter snowboard season has started. This way the retailer can advertise and have the boards for sale at the beginning of the season. When the boards are sold the retailer can then pay the manufacturer. However, the manufacturer was not so lucky. Their supplier of fiberglass used to manufacture the boards wanted to get paid in the summer and fall. So, the borrower needed a loan to pay for the fiberglass and expected to pay it back after the retailers started to pay the amounts owed.

The above is good an illustration of temporary needs that drive borrowing. A different situation is faced by ever growing businesses. These companies need ever increasing levels of permanent assets. A company experiencing consistent long-term sales growth needs to carry ever-increasing amounts of current assets. In the following diagram, there are three things to observe as sales continuously grow: 1] New fixed assets have to be added periodically, 2] A new larger amount of permanent current assets is needed, 3] there is a periodic temporary need to increase current assets as well.



There is a steady need to increase both fixed assets and current assets over time. This is driven by the ever-increasing sale growth. In addition, there are periodic increases in current assets that are temporary.

The additional amount of increases in permanent fixed and current assets could come from new equity, retained profits, creditors or bank loans. Again, it is emphasized that some other sources of repayment must be available, as these assets will not decrease to their prior lower levels in the near future.

It has been mentioned and emphasized several times that the repayment of loans for the purpose of permanently increased assets cannot come from their decrease; instead it must come from some other source. The usual repayment source is profits. It should be emphasized that only profits not required for other purposes (capital expenditures, dividends), and which would otherwise be retained as cash, can be used for loan repayment. One of the worst errors believes that the Net Profit on an income statement is available for loan repayment. Almost invariably there are other needs for cash, which compete for profits.

The most common need for a business loan is to enable a business to purchase or carry increased assets. It is important to distinguish between the need for the carrying of those increased assets for a temporary period, or for a permanent period. The repayment source is so different depending on the factors of temporary and permanent.

All sources of information should be utilized to determine the real cause of the loan request. The analysis of financial statements is one of the main sources to determine or verify the reasonableness of the cause of the loan request. If, for example, the A/Rs and inventory are increasing, and the turnover days are stable, this might be an indication of growth as a cause, which is further verified by observing the sales trend. If the sales are not increasing, A/Rs or inventory are increasing and turning over slower, a different problem is involved which may be either of a temporary or of a more permanent nature?

EXAMPLES OF MATCHING STRUCTURE TO NEED

The basis for lending is problem solving. Over time it has been problems that have brought borrowers and banks together. These problems are not always negative as in the case of a company faced with unsatisfied demand for their product. A bank can help by providing, if current company funds are not available, the financing of extra production equipment needed to meet the excess demand. Further, if a temporary need to increase inventory exists a bank can lend short term to allow for the acquisition of needed inventory. This is an example of how a loan product can assist a company in its business activities.

Short Term Loans

The purpose, as previously discussed, is usually to support or supplement funds the company already has to purchase and/or carry inventory or A/Rs. Repayment comes from the proceeds of the sale of the inventory and/or collection of the A/Rs. To best illustrate this a "cash cycle" is depicted below which contains the basic elements of the current assets section of the balance sheet.



In the example, funds are supplied to the company by the vendor (A/P). These funds could as easily be supplied by the bank as a short-term loan. At the end of the 75-day period when the company must pay its debts (\$50), the A/R is collected and the cash balance goes up. The cash balance is then reduced to repay the debt.

The facts of this example could be changed slightly to introduce an additional consideration, Working Capital. What if the company had been operating for some time and had accumulated some cash of its own. If the company had \$25 of its own funds (equity/working

capital), the A/P or bank loan requirement would be reduced.

Long Term Loans

Fixed assets are generally productive assets. In the normal course of business operations fixed assets are used to help produce revenues. They are not themselves sold to generate reoccurring revenues. Another example might be a company that manufactures screws. The company uses two pieces of machinery to produce and finish the screws. To meet increasing demand for their product the company buys two new machines. The productive life of this equipment is 7 years. Over the life of these machines many thousand screws will be manufactured with each screw, when sold, generating some profit. It is that little bit of profit from each and every screw spread over several years of production that is the source of repayment for a bank loan.

If the company were in the business of buying and selling machinery repayment would be from the full proceeds of machine sales. The type of loan that would be offered by a bank would be different in that situation.



Long-term loans are loans where cash flow repays the loan. The asset being financed is productive over a long period of time and a repayment source, the profits from its utilization, is matched against its productivity.

The \$10 profit that results from the transaction above is the source of repayment for our long-term loan. The following chart depicts a cycle that is repeated over and over during the life of the long-term asset and how each cycle throws off cash.

Conclusion

The most important principle at work is the one of matching. This is the matching of cash generation as a repayment source to the maturity or requirement to repay. In order to match required repayment to the timing of cash accumulation, we must understand specifically what caused the need to borrow and how the loan will be used. We must then make some sort of projection as to accumulation of cash.

The single biggest mistake made in this process is the mis-identification of the cause or reason for borrowing. When we do not understand the real reason it is extremely likely that we will not structure the loan appropriately and match repayment to cash generation.

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