A Baker’s Dozen Lessons of Value Chain Financing in Agriculture
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Value chain finance in agriculture is an approach to financing that uses an understanding of the production, value added and marketing processes to best determine financial needs and how best to provide financing to those involved. Many diverse and innovative financial instruments may be applied or adapted to fit the specific financial needs and cash flow projections can be used as to secure financing and reduce risk. This article looks at this approach and the application of financial instruments and innovations and draws lessons for widespread application. The lessons are drawn from 90 cases presented in four regional conferences on value chain finance organized by the Food and Agricultural Organization of the United Nations (FAO) and a study on structured finance for agriculture. These lessons show the high potential of this approach for successfully increasing finance to agriculture and agribusiness with less risk and lower transaction costs.

The term value chain is being applied widely across the business, enterprise development and agricultural fields. It refers to the sequence of processes and linkages through which raw materials and resources are converted into final products for the consumer. The use and adaptation of principles of value chains in finance has been growing in interest. This adaptation, now known as value chain finance, is defined broadly as “financing that flows through the value chain and its multiple linkages and as well as finance which is made available to borrowers because they are linked into a chain.” Some of the instruments used are complex and can only be noted below while others have been applied in one form or another for centuries, but most importantly, it is the value chain finance approach to lending that must be understood all lenders and policymakers.

The research questions for using a value chain approach are: a) how does it apply to finance, b) in what ways is it best applied and c) what are its strengths and areas for caution? In order to do this, the Food and Agricultural Organization of the United Nations (FAO), together with various regional partners, organized four regional conferences on Agricultural Value Chain Finance held in Latin America, Africa, South Asia and Southeast Asia. The following lessons and corresponding illustrations depicted below, are a baker’s dozen lessons (12, plus one extra for good measure) drawn from the learning of 90 papers and presentations and supplemented with work on structured finance in Eastern Europe and Central Asia. The final 13th lesson is not only equally important, but helps put the other 12 in perspective with finance as commonly practiced.

1. A comprehensive approach
"Value chain finance is not a financial product; it is an approach and through which numerous financial instruments can be applied depending on the nature of the value chain and point of entry. It is also more than the financing of the actors within a chain or even financing supported by being in a chain. Instead it is a comprehensive approach of assessing a value chain, adapting finance to most efficiently fit the chain and its actors. Furthermore, its strength lies in helping to understand the risks of the business through understanding the risks and the competitiveness in the value chain and then using that information for investment decisions and how to best adapt or tailor fit that information to provide finance to those current and potential clients within the value chain. Traditional bank lending approaches are “supply led” which offer a set of loan products and their loan appraisal officers do not begin to comprehend the industry risks of weather, diseases, changing food safety standards or even the changing marketplace.

Some leading banks, such as Rabobank, do use a comprehensive approach. This AAA-rated commercial bank in the world and its largest lender in agriculture employs a large cadre of full-time staff to analyze value chains for their financial investments to understand the risks, growth potential and where to most effectively invest in the chain. Even some state banks, such as in the Vietnam Bank for Agriculture and Rural “the value chain approach is applied in credit appraisal to help credit officers to resolve two problems: 1) understand overall market positions that affect on cash flows of loan projects and 2) to determine the adequate capital which must be invested into a loan.”

2. Use of insider knowledge.
No one knows a business better than those in it. The drivers of a value chain, who are most often the businesses involved in the processing and marketing, know the business in a way the financial institutions by themselves do not. With a chain approach, banks can avail of this knowledge and improve their financial operations and risk management with any in the value chain, including small farmers with whom they may not have had confidence for lending otherwise.

Information is a key to competitiveness; it is critical to risk assessment. Lack of transparency of information is a problem in many countries. Balance sheets presented to financial institutions are often not trustworthy and business risks are often hidden to the financial institutions, but day-to-day value chain partners tend to know each other better. In addition, some of the businesses within a chain are known companies and easier to assess than others. These are therefore easier avenues for financing to the chain. Even being a part of an integrated chain with known companies can be a benefit for obtaining financing. In Costa Rica, for example, vegetable growers and coffee producers were able to obtain financing easier and on better terms when they were linked into integrated chains with stronger businesses since it demonstrated a level of confidence in their capacity and a more secure market for their produce.

3. The weakest link
Value chain finance places its primary focus on the health of the chain or sector and its cash and commodity flows, rather than traditional collateral. Hence, weakness at any link in the chain can impair the success of everyone in it and increase financing risk. The level of mutual interest of the common good within the chain can reduce risk, but only if that interest is genuine and the linkages are strong.

In Indonesia, many NGOs supported the small silk producers with technical assistance, training and finance. However, household silk production depended upon one national company for processing the silk into thread. When this company was forced out by Chinese competition, the small producers’ market was devastated and their loan repayment suffered.

4. Forward focus
A good client in a moribund sector or having an increasingly obsolete technology or technical capacity is a ticking time-bomb waiting for failure to occur. A value chain approach addresses the capacity, technology and economy of scale issues from an industry competitiveness perspective. It can address the weaknesses in timely fashion or decide to move to new sectors where those involved can be more competitive.

It is found that Good Agricultural Practices (GAP), (Hazard Analysis and Critical Control Point (HACCP), traceability and other industry regulated standards and norms have transformed the fruit and vegetable industry. Many producers can no longer compete since they are unable to meet standards. In Kenya, a reputable but unaware farmer’s organization found their produce was no longer acceptable to even meet new local market standards due to the introduction of Kenya-GAP. Their farm income was threatened as well as their loan repayment capacity.

5. Re-focused 5 C’s of assessment
A well-rounded assessment of all borrowers is still critical in value chain finance such as is done in the often used 5 C’s of lending refer to: 1) character, 2) capacity, 3) collateral or capital, 4) conditions and 5) cash flow. Financiers have typically focused upon the first three, with banks giving highest priority to collateral and in microfinance giving priority to character and capacity. These remain valid in value chain finance but a higher weight is now assigned to the conditions – both the health and market conditions of the value chain and the “fit” of the financial conditions and cash flows to those clients within the chain. Hence, the risk assessment moves well beyond client credit risk and requires careful assessment of the risks of market, price and production. Similarly the cash flow capacity of the value chain must be sufficient and in total synch with that of the loan conditions.

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<th>The 5 C’s</th>
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<td>1. Character</td>
<td>• suppliers, producers, purchasers and others in value chain who</td>
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<td>interact regularly can assess of the character and management</td>
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<td>savvy of each other better than a banker, with whom he has</td>
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<td>infrequent interaction</td>
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<td>2. Capacity</td>
<td>• assessment is broadened from the borrower’s individual capacity</td>
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<td>toward a focus on the health and growth potential of the value</td>
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<td>chain and the competitiveness of those</td>
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### Capital
- Involved in it; also one’s borrowing capacity can be strengthened because they are integrated into a strong value chain
- The capital of the borrower alone is less emphasized in value chain finance as increased attention is given to the capitalization within the whole chain

### Collateral
- Cash and commodity flows which can be predicted from past relations or contracts can replace or enhance traditional collateral; also in tightly integrated chains the collateral of the strongest partners can be used for attracting finance which can also be a benefit to others in the chain
- Conditions for financing are more adapted to the chain; structuring finance to fit the specific needs becomes paramount to its success and can improve “bankability” of the clients.

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### Embedding finance for access and efficiency.
Loan processes are not fun for anyone and their costs in time and fees hinder many from having access to finance. By including finance into the “package” of inputs and/or other services, there can be an improvement in efficiency and often in repayment. The lack of transparency of the cost of funds can lead to abuses, but in general the interest of the “client” is the overall package of inputs and services and the output returns. The cost of finance by itself is not important.

In Kibwesi, Kenya in a program initiated by CARE International, very poor, sometimes landless farmers, jointly rent land and install irrigation to produce Asian vegetables for export under contract from large processing and exporting companies. Their input, investment and technical assistance costs are paid from harvest proceeds. Financing costs, including the upfront irrigation investment, are part of the “package” which taken as a whole set of services, provides farmers, who would not be otherwise deemed credit worthy, access to financial services.

### Financial risk reduction can be achieved by financing through the strongest chain actor
Within a chain, some actors are more risky than others. Also, some are more efficient to receive funding. By understanding the chain and lending to or investing in the strongest entities, most often those at the end of the chain, the financial costs associated with risk protection are reduced.

After the break-up of the Soviet Union, the state structures for finance to farmers and agribusinesses were no longer in place. In order to finance the cost of farmer inputs, export contracts from large, recognized processors were used to secure funding to the companies, who in turn procured inputs for their contracted farmers.

### Innovation is important
Innovation has opened the door for growth in the use of value chain financing. Easier communication via cell phones and the intern facilitate buying, selling, price information and money transfers, as well as better MIS systems, allow for even small financial institutions to easily offer the flexible disbursements and payments needed in value chain finance. However, the availability and access to innovation is very unequal.

In Kenya, for example, DrumNet uses cell phones for farmer groups to buy inputs, learn prices and arrange sales. In India, under BASIX, internet kiosks can be used for forward contracting, and these contracts can be used as collateral for loans. Even more importantly, in all regions, improvement in MIS systems in organizations now allows for the customization of loans which has facilitated the structuring of finance according to the business and value chain needs.

### Chain diversification is important
Value chain participation and the risk implications are not singular; for clients and bankers alike. It is easy to think in terms of value chains from a vested interest in the chain. A risk of a value chain focus is for producers or businesses, as well as financiers, to over-specialize and unduly increase their risk in both production and in the marketplace. Yet uncontrolled industry turns, droughts and other risk factors show the need for diversification of client product lines, markets and capacity. This is important for banks as part of their clients’ financial assessment as well as their own portfolio balance assessment.

A good example of this is Standard Charters bank which is a leader in value chain financing in Africa. They carefully select value chains with most potential for investment, but they also carefully assess their exposure...
and that of their clients to the systemic risks inherent to non-diversified and closely correlated investment activities.

10. **Multiple models and applications**
Vertical integration within value chains, consolidated ownership or control, or associated models all have their place. One or more forms of value chain financing can be used in almost all types of value chain models, but many instruments are applied distinctly for specific ownership models of which a few are illustrated below.

- **Integrated value chain model**: In Nicaragua, LAFISE holding company provides a full array of value chain services, including banking, input supply provision, transport, processing, commodity management, including warehouse receipt financing, insurance and exporting as well as providing or linking producers to technical assistance providers.
- **Full-service financial model**: In India, YES Bank offers a full-service model with lending against production contracts, sales contracts, forward contracts, warehouse receipts and vendor bill discounting as well as insurance.
- **Securitization model**: In Colombia, the National Agriculture and Livestock Exchange (BNA) issues securities to investors through a commodity exchange. Using the cattle as collateral, it “packages” the financing for them into securities acceptable to investors, resulting in financial costs to the cattlemen which are less than bank loans.
- **Inventory financing model**: In the Philippines, Quedancor allows buyers and processors of agri-fishery commodities to obtain loans based upon Commodity Acknowledgement Receipts issued by the buyer/processor to farmers for commodities delivered for processing. Varied models of formal inventory finance systems using Warehouse Receipts and informal ones relying on peer control are found in all continents.
- **Contract farming model**: In Ukraine, Konzum supermarkets negotiated with the local banks to use the farmers’ contracts with the supermarket as a collateral substitute for funding irrigation and greenhouses since they did not have traditional collateral.

11. **Emulates stakeholder participation or mutual interest banking**
The most sophisticated financial instruments contain incentives or shared risks, etc. Islamic banking in some of its various forms similarly involves borrower-lender shared risks and returns which is found in value chain finance. The underlying concept is ancient, but relevant. It is noted that the higher the level of mutually shared risks and returns, the stronger is the relationship. In this way, for example, contracts with clear benchmark formulas for price determination based upon the market conditions result in more lasting relationships than those with inflexible fixed prices whereby “side-selling” or reneging on purchases often result when market prices change.

Since historic times farmers have often received seeds and others inputs in exchanges for an in-kind payment of a portion of the final produce. In the Mudarabah form of Islamic banking, a financier provides financing to a producer who provides the labor and expertise under an agreement whereby profits according to predetermined ratio.

12. **A struggle for policy makers and Central Bankers**
The flexibility, lack of reliance on traditional collateral and evolving nature of value chain finance makes it complex for providing the laws and supervision of value chain finance instruments. The major deterrent for many value chain finance instruments in most developing countries is the lack of a legal structure for implementation. Some of the instruments of structured finance, such as factoring, are quite new and require new laws in order to be used. Some applications require revision in the acceptance of new forms of collateral. Public and private entities must collaborate on research and development to understand these instruments and their implications for policies and supervision. Yet, lessons and examples are available and the experiences in some countries can serve to inform and guide the policy development in others.

There are many examples but one of the most widely used forms of value chain finance is warehouse receipts. Yet in a comprehensive review it was found that only a few countries in Eastern Europe and Central Asia had laws to facilitate its use. Even so, some applications, including informal systems of warehouse receipts, both FAO and Développement International Desjardins (DID) have been able to develop farmer or cooperative systems of warehouse financing using group systems which can circumvent the absence the normally required policies and legal environment.
13. Does not replace traditional finance
Household and agricultural needs for financial services are many and value chain finance can only address one set of those needs. Furthermore, value chains are heterogeneous and value chain finance fits best with integrated or at least somewhat organized value chains. Many chains are not organized but still need financial services. Even so, an understanding of value chains and the importance of market assessment, product and cash flows, linkages and competitiveness are useful to all lending and investment decisions.

For example, LAFISE uses its involvement with value chain farmers and businesses to not only offer integrated value chain financial services but to provide them and other clients with a full set of traditional savings, loan and other financial services to meet their household needs. Value chain finance offers not only a complement to traditional finance but also opportunity to expand and enhance its use.

Value chain finance has an important place in agricultural finance; most important is its comprehensive, structured and market-competitiveness approach to complement and enhance traditional finance to increase access to capital and reduce risk for both clients and financiers.

Data and research for this summary article is drawn from four regional conferences co-organized by FAO on Value Chain Financing in Agriculture held in: Costa Rica, May 2006; India, April 2007; Kenya, November 2008; and Malaysia, December 2008. These presentations and papers can be found at: www.ruralfinance.org/id/48273. Additional information was drawn from a FAO Working Paper on “The use of structured finance for agriculture in Eastern Europe and Central Asia,” by Mike Winn, Calvin Miller and Ivana Gegenbauer, FAO, September 2008.
A ‘value chain’ in agriculture describes the range of activities and set of actors that bring agricultural product from production in the field to final consumption, wherein at each stage value is added to the product. 3. What value chain is all about? The production stages entail a combination of physical transformation and the participation of various producers and services up to product’s disposal after use. 11. Usefulness of Value chain analyses It identifies the flow of goods, information and finance through the various stages of the chain. 12. Usefulness of Value chain analyses Evaluate each stage in order to detect problems or identify opportunities to improve the contribution of specific actors and the overall performance of the chain. The food and agriculture sector is increasingly organised within GVC around a number of global hubs. Agro-food GVCs have broadened the gains from specialisation and trade through stronger sector and employment growth. Openness to trade, especially services trade, can positively influence domestic value added creation in agro-food GVCs. However, trade protection and distorting agricultural support policies can reduce the gains from GVC participation and impose costs along the value chain. Government policies need to focus on facilitating participation in GVCs and helping to manage any adjustments. The concept of Value Chain Finance is broad, and the term is used to describe varying aspects of the approach and its supporting tools. Therefore, a nuanced understanding of value chain finance is best derived from the learning of many who are experts in one or multiple aspects of financing the value chain. This volume brings together the experience of many such experts. This volume provides a global review of experiences and learning on the broad subject of value chain finance for agriculture in developing countries. Value chains in agriculture comprise a set of actors who conduct a linked sequence of value-adding activities involved in bringing a product from its raw material stage to the final consumer.