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Learning to Collaborate: Value Chain Governance and Finance in the Albanian Apple Sector

This microNOTE examines the structure, governance, and opportunities for finance to foster linkages in the apple value chain in Korça Albania.

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INTRODUCTION

Recent literature on value chain finance emphasizes the importance of risk sharing between actors at different stages of the value chain in order to overcome financing constraints. Value chain finance solutions require a high degree of inter-firm collaboration between input suppliers, farmers, processors, and traders. However, this type of collaboration does not always come easily. In particular, the structure of value chain governance relationships influences the degree to which firms collaborate. In the Albanian apple value chain, traditional governance structures that limited inter-firm cooperation are coming under increased pressure from new market forces—opening the door to new possibilities for value chain financing.

THE APPLE VALUE CHAIN

During the socialist era the Korça region of Southwest Albania near the Greek border was the center of the apple industry, with large collectivized orchards producing both for fresh consumption and for processing. During the transitional period from 1990 to 1998, when land was redistributed into many small parcels allotted to individual families, production took a dramatic downturn due to disease and the weak capacity of the new land owners to care for the orchards. Massive emigration from the areas also contributed to the downturn in production, which was accompanied by the demise of the state-owned apple processors.

After 1998, however, as market forces reestablished themselves and farm families began to have confidence in the solidity of their land tenure rights, they began to reinvest in apple production—often using remittance income from family members abroad. This reversed the period of decline and ushered in an era of gradually expanding production that has accelerated significantly over the last three to five years.

Today, apples are the leading tree fruit crop in Albania. Approximately 12,000 to 15,000 farms produce 36,000 tons of apples per year for a value of around $27 million. With virtually no exports, apples are the second-most consumed fruit or vegetable in Albania. While imports have traditionally constituted the major part of consumption with volumes easily surpassing domestic production in most years, for the first time since the communist era, in 2007, domestic production exceeded imports by 30 percent. Roughly two-thirds of national production comes from the Korça area.

The main structural characteristics of the value chain are described below.

Production

In Albania, farm-level apple production is dominated by farmers working very small land plots. The vast majority of marketed production is produced by farmers who can be grouped into two major categories:

- **Smallholder farmers** with apple surfaces of between 0.1 ha and 0.7 ha for whom apple production constitutes a component of household revenue, but is unlikely to be the most important source of income. These farmers will have an annual volume of production generally under 5 to 6 tons that justifies some effort spent at harvesting and marketing, but they do not treat apple production as a commercial activity in which they are willing to make significant investments.
- **Large-scale farmers** cultivating surfaces generally between 0.8 ha and 3 ha who operate true commercial apple orchards. Such farmers will invest in certified saplings of good genetic quality, prepare the soil on an annual basis, apply fertilizer and use gravity-fed flood irrigation. Most also apply pesticides, although recommended dosages and spraying schedules are rarely respected.

Wholesale Trade

The wholesale markets in Albania's major cities are the critical link in the apple value chain that is characterized by a diversity of unspecialized actors. The main tendencies of the Albanian apple market are determined within the confines of the wholesale markets, particularly the one in Tirana. The major types of actors at this level are:

A farmer in Korça with his apple harvest.

- **Small-scale wholesalers.** They are the major buyers at the farm level and the source of the largest volumes arriving in wholesale markets. These are, for the most part, small informal traders with no fixed warehouse or depot who buy in the producing regions and sell in urban areas where they have their home bases.
- **Large-scale wholesalers/importers.** These are generally registered businesses that have a fixed warehouse inside the wholesale market. Most are officially registered as fruit and vegetable importers and much of their volume consists of imported apples. These actors buy domestic apples from individual larger farmers and use their own transport vehicles to evacuate the product. In general, large wholesalers/importers are small or medium enterprises with diversified activities and

other sources of income. They sell to distributors in the wholesale market.

- **Major apple importers.** This category of actor comprises the only true specialists in the entire apple value chain. Major apple importers limit their activities to the import and wholesale of imported food products, including apples. They do not sell in less than pallet-sized loads, whereas all other actors deal in 18- to 26-Kg crates of domestic apples. They sell mainly to distributors in the wholesale market.
- **Distributors.** These traders assemble a variety of fresh produce from different sources, including both imports and local product, to offer a basket of different fruits and vegetables that meets the needs of retailers. They purchase pallets of imported products from importers which they stack and combine with purchases of domestic products of all types from small wholesalers.

Retail Trade

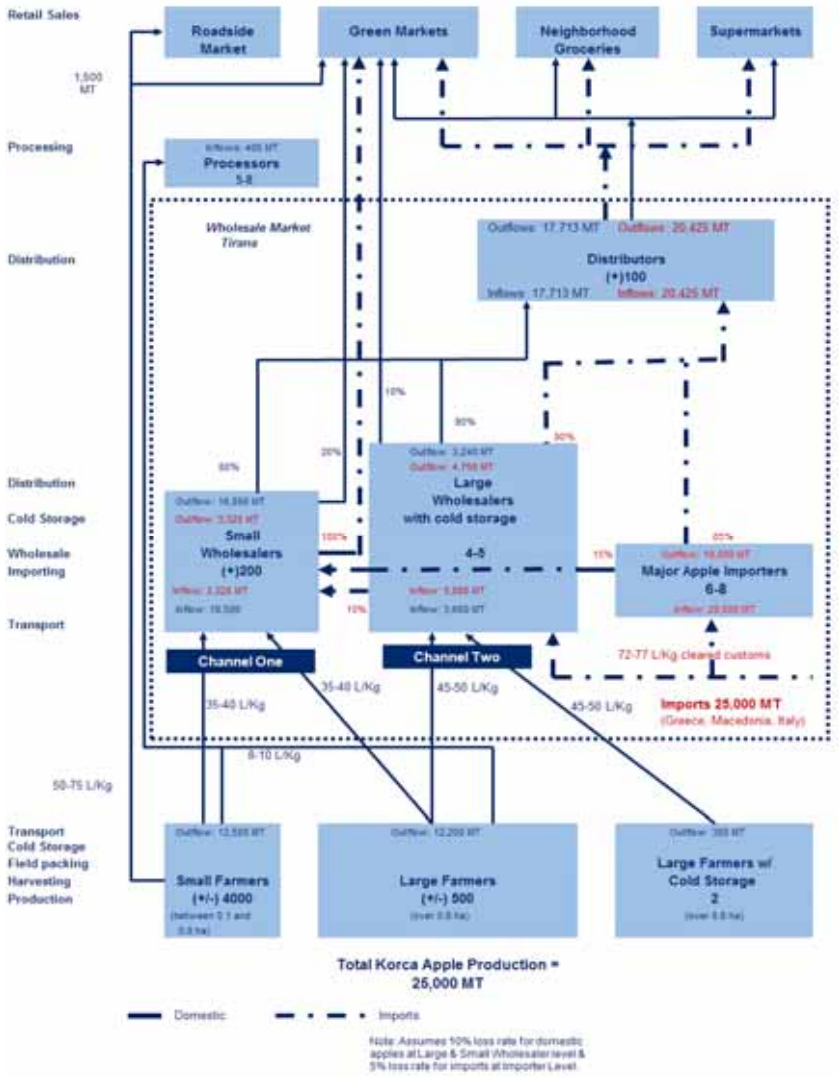
The retail sector in Albania remains largely dominated by small retail grocery stores and by vendors in neighborhood markets that are referred to as "green markets." In contrast to regional trends, the supermarket segment remains undeveloped. (The two supermarket chains account for only 5% of total food sales in 2007.) All categories of retailers deal in local and imported apples bought, mainly from distributors but also occasionally from small wholesalers or farmers in the wholesale markets.

An overall picture of the value chain for the Korça region is given in the value chain map (Figure 1).

- Channel 1, dominated by small wholesalers; and
- Channel 2, dominated by large wholesalers/ importers.

In Channel 1, a large number of traders buy from an equally large number of farmers in discreet cash-on-the-table commodity type transactions

Figure 1: Apple Value Chain Map



As the value chain map shows, there are two main channels through which domestic apples flow into the wholesale markets:

with a limited scope for developing longer term market relationships. This stems from the opportunistic nature of small wholesalers, who are mainly spatial arbitragers of regional

differences in market prices. In general, pricing in this branch is done on a fixed price for a farmer's entire production. Lower quality apples result in a lower price with all apples being bought with little or no sorting or selection. Both prices and qualities are both relatively low.

Channel 2 is populated by a much lower number of buyers and sellers. One of the main differences between large wholesaler/importers and small wholesalers is that the former need larger transactions volumes to fill their trucks. Therefore, they only wish to deal with larger farmers and do less "shopping around" looking for the lowest possible purchase price. Large wholesalers generally sell to the main distributors in the wholesale market—particularly those that emphasize better quality. Unsurprisingly, farmgate prices are higher than in Channel 1.

As depicted in the value chain map, channels 1 and 2 are quite distinct between the farm and wholesale levels. The channels converge, however, at the next level since apples from both channels, together with imports, flow into the same basic distributor-retailer network.

DYNAMIC TRENDS

The critical development in the apple value chain over the past three years has been the movement of major importers to set up wholesaling activities for domestic apples. The driving force for this change has been the rapidly rising domestic production and concomitant decline in import volumes. While production in the Korça prefecture rose by 14,120 MT between 2005 and 2007, imports declined by 15,774 MT—an almost one-to-one relationship. Official figures show that there are over 400 new hectares of apple orchards planted in Korça in the last two years that have yet to come on-stream, implying that over the next six years production levels in the region should rise by another 10,000 to 12,000 MT, even in the absence of any further new plantings.

Plastic crates in the field, awaiting pick-up.

The increased availability of Albanian apples, which are now being consumed in larger volumes than imports, has led to two main dynamic trends:

- **Apple importers are under increased competitive pressure to handle domestic apples.** Before the increase in domestic volumes, apple importers were the clear value chain leaders by virtue of their privileged access to imported apple dealers in neighboring exporting countries. With the acceleration of the trend towards rising local apple production, this business model is coming under pressure as more small wholesalers are offering larger quantities of favorably priced, fresh local apples beginning at harvest in August until the end of November. This is pushing importers, who possess significant financial resources, into the market for domestic apples.
- **The increase in production has spurred interest in storing domestic apples.** The rise in domestic production has not gone unnoticed among apple wholesalers, importers and the larger farmers—leading all these actors to make investments in cold storage facilities for the expressed purpose of storing apples in order to reduce their exposure to seasonal price swings. At least 5,000 tons of cold storage capacity is being added in the 2008 campaign in six new facilities. Four of these facilities belong to large wholesalers/importers, while the remaining two are being built by large farmers.

Given these dynamic trends, it is clear that the strategic upgrading needs of the apple value chain do not lie in expanding planted surfaces or in promoting new investments in cold storage—since these activities are happening without any external intervention.

Rather, the main challenge facing the apple value chain over the next five years is maximizing returns on these investments by helping farmers adopt more efficient production methods and by improving product quality, and marketing, particularly for stored apples.

CHANGES IN VALUE CHAIN GOVERNANCE

Channel 1, the largest branch of the value chain has seen a significant rise in volumes from the increase in domestic production. This part of the value chain, due to its multiplicity of highly interchangeable sellers and buyers and the undifferentiated commodity nature of the apples flowing through it, is almost an ideal case study of a market-type of value chain governance system. In this system, single buyers and sellers are not indispensible to each other, as each has a range of alternatives at their hand offering more or less similar terms. This inhibits the development of the solid vertical linkages between farmers and wholesalers that are necessary for the development of higher forms of inter-firm cooperation. Without this basis for cooperation, there is little scope for formulating value chain upgrading plans in Channel 1 that rely on coordinated activities between farmers and wholesalers. Thus, the advent of standard innovations that could lay the groundwork for improved product quality and productive efficiency, such as advance purchase contracts, sorting and grading protocols, and the joint financing of productive investments between farmers and their buyers, are all virtually impossible to envision under a market type governance system.

The possibilities for value chain upgrading have, only in the last two to three years, taken a dramatic turn for the better however with the emergence of Channel 2. In this channel, well-capitalized apple importers are delving into the market for domestic apples for the first time. With this critical change, and the increased importance of longer-term relationships between a much lower number of large farmers and large wholesalers/importers, Channel 2 is witnessing the beginnings of a movement toward a balanced-type of governance system.

This type of governance system offers a more fertile ground for the development of more advanced forms of buyer-seller cooperation, as each party has a mutual interest in the other's success since the costs of losing a good buyer or supplier are significant. The first steps towards true vertical coordination in the value chain are timidly appearing in Channel 2 where some large wholesalers are now beginning to offer advance payments, negotiate unwritten quality standards to be applied by their suppliers, and requesting that farmers screen apples through a selection process in return for higher farmgate prices—all practices which are unknown in Channel 1.

Still the movement towards the development of a balanced type of governance system is quite young and fragile—given the low volumes of apples moving through Channel 2. Building up this arm of the value chain is the principal challenge for the value chain as a whole and for donor-financed value chain projects that are seeking to contribute to value chain upgrading.

Drip irrigation technology remains relatively rare on Albanian apple farms

THE ROLE OF VALUE CHAIN FINANCE IN FOSTERING INTER-FIRM COOPERATION

It is generally recognized that the governance structure of a value chain can have a strong impact on the types of financing solutions that are available to value chain actors. For instance, market-type governance structures do not provide a fertile ground for the development of structured value

chain financing solutions that require cooperation and shared risk among value chain actors, since they are characterized by weak vertical linkages and a generalized absence of inter-firm cooperation.

What is less commonly recognized is that the way in which financing needs are met can, in turn, have an important impact on value chain structure—and can actually help or hinder the development of stronger vertical linkages in the value chain.

In the Albanian apple value chain, for instance, one opportunity for increasing farm productivity lies in the adoption of drip irrigation and a related technique called fertigation, in which fertilizer is added to the drip irrigation lines and applied as part of the irrigation process. The amount of investment and working capital needed for a one hectare farm is around $13,000, which could be paid back over one or two seasons. With guarantees from a large wholesaler, two financial institutions in Korça, Procredit Bank and Opportunity Albania, would easily finance such loans. Even as small a core group as 4 large wholesalers guaranteeing loans to 5 to 10 large farmers a piece could have a significant impact, both in terms of accelerating the spread of drip irrigation technology, and more importantly, in helping to firm-up the vertical linkages in the value chain between large farmers and large wholesalers. This is because the advent financing solutions based on shared risk actually helps to bring the actors involved closer together, since both sides have even more incentives for mutual success. With a financing mechanism of this type in place, then, the possibilities for associating other operational measures that improve market coordination between farmers and wholesalers increase exponentially,

In contrast, in the absence of the guarantees from large wholesalers, the speed of adoption of the new irrigation technology will be much slower, as the pool of large farmers qualifying only on their own merits for loans will be much reduced. Actors will also require more convincing to actually enter into cooperative commercial relationships.

Unfortunately, given the lack of history and firm market relationships in Channel 2, the "comfort level" required for large wholesalers to extend financial guarantees to large farmers just does not yet exist. Neither set of actors has enough familiarity with the other to accept the necessary risk sharing.

Initially, therefore, financing solutions in the near future for farm-level upgrading will best be found in the standard financial products available from Opportunity Albania and Procredit Bank. Both institutions now have credit officers who circulate in rural areas and are quite familiar with the business risk of operating apple orchards in the Korça zone. Furthermore, both have scaled-up their products line from microfinance to SME finance in the past three years and are capable of meeting the full range of credit needs of large farmers, not only for drip irrigation technology but even for higher cost, longer payback investments. These larger investments include the $30,000 to $40,000 required to establish a one hectare orchard using modern techniques of high density plantings that can yield significant productivity gains.

Over the medium-term however, the prospects are somewhat brighter for structured value chain finance products that associate farmers and large wholesalers. Outside value chain projects can assist in this process by acting as commercial "match makers" to foster partnerships around concrete ventures—starting with very small levels of shared risk and progressively advancing to the point where actors are willing to accept a greater degree of interdependence.

One large wholesaler, for instance has expressed a willingness to finance late season phyto-sanitary treatments to retard the loss of color in Golden Delicious apples held in cold storage. While he is unwilling to take on large risks incurred at the farm level as of yet, he is willing to take some "small riskable steps". This year he is just starting to put apples into cold storage and establishing a list of suppliers. Should the experiment yield

good results this year, next year he will likely be ready to carry-through on his plans to pay for farmers' phyto-sanitary treatment and maybe even for small improvements in productive infrastructure. In succeeding years his hesitance to take on more ambitious projects will be further reduced. Through this step wise progression involving large farmers and large wholesalers, it will be much easier to move toward the next stage of value chain finance, with large wholesalers more willing to finance improved production at the farm level.

The role for outside assistance in speeding this process is quite clear—donor financed value chain projects have a unique advantage in helping actors in the chain to develop the foundations for closer vertical links by virtue of their ability to work with all types of clients to formulate the types of project listed above and by providing technical assistance to help them succeed.

With the very small number of actors along the critical value chain axis in Channel 2 (a half dozen large wholesaler/ importers and around 500 large farmers) it is entirely possible for a value chain project to contribute to the major restructuring of the entire apple value chain in as little as three to four years—with a generalization of the use of value chain finance products spurring the widespread adoption of improved production techniques by the close of that time.