

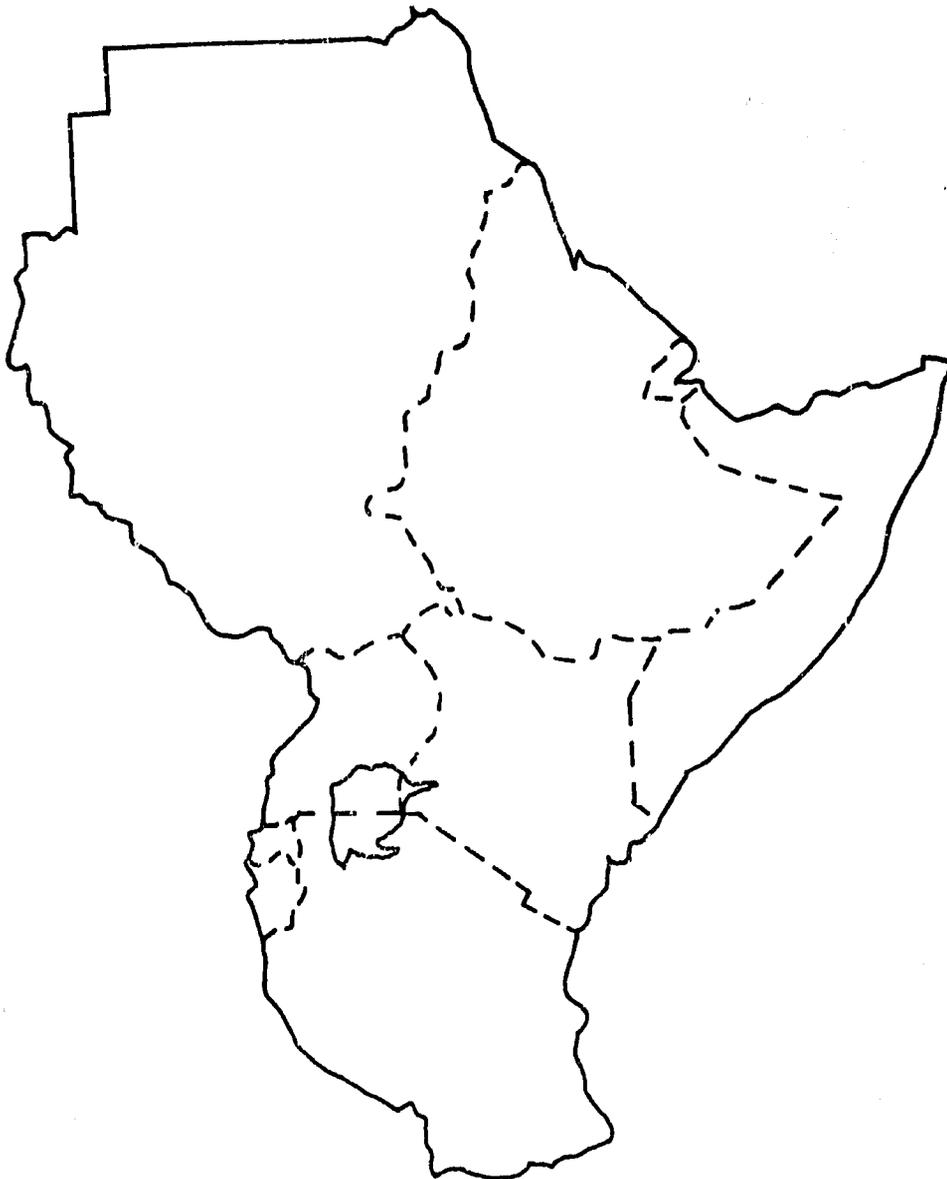
6980125
PP-PP-602

RP11

192-0774

Eastern Africa Regional Studies

INFORMAL MARKETS



October, 1982
International Development Program
Clark University
Worcester, Massachusetts 01610

EAST AFRICA REGIONAL STUDIES

REGIONAL PAPER #11

INFORMAL MARKETS:

SMUGGLING IN EAST AFRICA

A Preliminary Discussion

Frank Puffer

1982

East Africa Regional Studies are prepared on behalf of the
United States Agency for International Development,
under contract by:

International Development Program
Clark University
Worcester, Massachusetts 01610
U.S.A.

Informal Markets: Smuggling in East Africa

Every society has its share of markets operating outside of the law. Whenever the government decides in its wisdom to place some restrictions on the purchase or sale of something, it creates the opportunity for the establishment of a parallel illegal market system, a black market. Any sort of restriction can lead to the establishment of such markets. Establishment of minimum quality requirements can lead to a parallel market in shoddy goods. Outlawing the sale of harmful substances, imposing an export tax, establishing a maximum price or restricting sales to authorized agents only are just a few of the things the government can do to create the potential for illegal market activity. Of course, not all cases of government regulation lead to the establishment of a black market. Even when there is some parallel market activity, it may not be on a large enough scale to seriously threaten the government's goals in initially establishing the regulation. However, there are many cases where government policy is seriously undermined by black market activities and the problem cannot be ignored. Substantial revenue losses and erosion of government creditability can result from wholesale disregard of government edicts in the case of economically important commodities, thus creating as serious a problem as the government is likely to face.

The purpose of this paper is to look at the problem of black markets in East Africa with particular attention to those markets (smuggling) which arise as the result of differences in economic conditions across national borders. The general outline will be to look at the motivations of the various agents involved, then consider a few case studies dealing with hypothetical situations that might arise in East Africa, and finally look at some of the meager literature on smuggling of specific items, generally crops.

An orthodox conservative economist has a rather simple and appealing answer to the problem of black markets. Since they by definition arise as the result of the imposition of some sort of government restriction, the problem may be solved by eliminating the restriction. In this view, the existence of coffee smugglers can be laid directly at the feet of the government official who established the tariff, duty, tax or administered price that led to the smuggling in the first place. Substitute free markets for the tariff, duty, tax or administered price and the problem disappears. The illegal market would have, by definition, disappeared--if there is still midnight transportation of coffee across the border, it is no longer smuggling since any legal restrictions on the market have been dropped. In addition allocational and efficiency advantages of freely operating markets are gained.

Well, why not? The answer of course is that there are a number of situations where a society may be quite willing to throw a bit of sand in the gears of the free enterprise system in order to achieve desirable results. Even economists would feel uncomfortable if the local hardware store sold machine guns and hand grenades for the benefit of aspiring criminals. One must therefore look at the reasons the government has for interfering with the market before concluding that an "out with the government regulation" policy is appropriate.

In looking at the reasons for government policy, markets where, for whatever reasons, the product is itself considered undesirable will not be considered. There is undoubtedly some smuggling of machine guns and narcotics in East Africa, as in the rest of the world, but this paper will not be concerned with such markets. Instead it will focus on products which are tolerated or encouraged, but seem to keep "leaking" outside of the official channels.

The two basic motives that bring East African governments into the market are first the desire to generate some revenue for government operations and second to control the level of price and/or quantity in order to benefit some portion of the population. The first of these motives is reluctantly tolerated by economists, the second is widely viewed as the source of all sorts of problems. An example of revenue-generation-related restrictions would be prohibition of sales of coffee outside of the official marketing channels in order to ensure that all foreign exchange generated through export of the coffee comes under government control. Examples of price or quantity control would be a nationally established price for beef regardless of location or condition of the animals, or a maximum price for the resale of rice by retailers.

The individual government's philosophy with respect to the value of the market system and its components such as private ownership will of course strongly influence the form of its intervention. It is important to note, however, that some interventions in fact tend to promote illegal market activity and create additional social costs. A contention of this paper is that it may well be possible in many cases to suggest to the government alternative policies that accomplish much if not all of what was originally desired without incurring such costs.

The individuals involved in the smuggling operation also have motivations. It may be useful to distinguish three types. Economic motivation is probably the most powerful. On the buying side, individuals risk the penalties for being involved in illegal markets in order to buy goods not otherwise available on the official market or pay prices substantially less than those officially mandated. If rice is not to be found on the shelves of stores, for example, it may be worth paying a premium over the official price in order to

"find" some rice for the evening meal. On the other hand, there is no point in paying the official price for meat if it is possible to find a butcher selling it for less to favored customers. Buying for resale also makes sense if one can informally buy coffee from across the border for less than the local marketing board is willing to pay for it. On the selling side, the black market may offer such a price premium over the official price that the transaction is more profitable even after the additional costs of avoiding apprehension are subtracted.

An additional motivation for smuggling and other black market activities is political. By engaging in the illegal market, not only does one do better economically, but one can also help weaken the current government. Since one of the main reasons for government involvement in the first place is revenue generation, political dissidents can not only strengthen themselves economically, but also strike at the government by denying it the revenues it would get from the tariffs, duties and taxes it would collect on the goods if they went through officially approved channels. Smuggling of coffee from Uganda to Kenya can be seen as both an economically understandable response to a variety of factors and a tool for attacking government by denying it the foreign exchange it would otherwise have earned on the coffee exports. While it might be difficult to find many examples where smuggling is motivated solely by political considerations, it is likely to strengthen the economic motive. At the very least, antigovernment feeling can reduce or eliminate the feelings of guilt that might inhibit some from participating in the illegal activity.

Finally, it is likely that some of those involved in smuggling are motivated by the joy of playing the game outside the rules. There is a challenge in beating the authorities by outwitting them that may be the main reason

for the involvement of some participants. If circumstances are such that society does not provide legally sanctioned means of showing what one can do, then opportunities outside the system may be created.

Smuggling and other black market activities are sometimes referred to as "victimless crimes" since both the buyer and seller are willing participants in the transaction. While this may not be an accurate characterization, since there are certainly indirect losses to society, it does help to explain the persistence of the activity. None of the participants have any incentive to report the activity. For enforcement, the government has to rely almost exclusively on official agents who do not often have the support and respect of the local community, which is likely to have its interests more closely aligned with those of the smugglers.

The notion of "victimless crime" is also often used to support the legalization of the activity in question. In the United States it is argued that selling marijuana is really a victimless crime since both parties to the transaction are involved of their own free will. Making marijuana legal, it is argued, would make all involved better off since it would eliminate unnecessary law enforcement costs and lead to a better allocation of society's resources. An extension of this type of argument in the case of smuggling is that smuggling, a noncoercive activity, actually serves to increase the economic well-being of a country since it acts as a partial removal of a tariff barrier. Since the tariff barrier is seen to be itself economically harmful, anything done to weaken or eliminate it must therefore be an improvement.

Bhagwati and Hansen, however, argue that even if we accept the economist's traditional theory of international trade, it can be shown that a country suffers welfare losses from smuggling--the more smuggling, the greater the

loss. Accordingly, one has to be very careful with arguments that suggest that if both parties are voluntarily engaged in the action, it must be beneficial. The case against smuggling is even stronger if we accept the government's need to raise revenue through tariffs, for example.

At this point it may be useful to look at a few hypothetical cases to help illustrate the factors involved in smuggling and other black market activity. Suppose there are two neighboring countries, both of which produce tea, an important source of foreign exchange earnings for each of them. Country A has an uncontrolled market in tea in which traders deal with individual producers and in turn resell to one of a number of trading companies that actually export the tea. Country B on the other hand, has a state owned trading company whose agents are the only ones legally entitled to buy tea. The tea is purchased at a price set by the National Tea Board at a level which covers costs and allows the transfer of a substantial surplus to the government treasury. Both countries prohibit the export of tea without the payment of an export tax.

Such a situation has the potential for the development of active smuggling of tea, but this won't occur unless some conditions are met. Someone has to first have a powerful enough economic incentive to divert him from the official market to the black market.

Let us consider a tea producer in Country B. If he is to be tempted into participating in smuggling, there must be someone in Country A willing to pay him a higher price than the official price in B. This could arise if the official price in B is set at a rather low level relative to the world price. The trading company may be corrupt and/or inefficient and thus have high costs that must be covered. The government of B may be trying to extract a substantial surplus from the tea trade, again lowering the price that can be paid to

the producer. However, even a substantial price disparity between the official B price and a trader's price in A will not necessarily lead to smuggling. There are some costs to take into consideration.

The first cost the tea producer in B must consider is the transportation costs. If A is separated from B by a rugged mountain range it may be quite expensive to get tea from B to A. The costs of course depend on the weight or bulk of the product and the availability of transportation systems. Added to transportation costs are the additional costs incurred to avoid detection and apprehension by the authorities. Bribes may have to be paid at the border, travel may have to take place at night at rates well above those of regular transportation, or papers may have to be forged. Some of these costs may not increase much with the size of the operation, which suggests that large-scale operations may be more efficient, but the need for secrecy and a generally low profile usually keeps the operation fairly small and therefore more expensive than would otherwise be the case.

A further cost is that of the expected value of any penalties. If smugglers are frequently caught and given fines, these become part of the cost of doing business. The price differential must be great enough to cover this cost as well as the others. More severe penalties may generate psychological costs, just as important as out-of-pocket costs. If the penalty for smuggling is the firing squad, one must weigh the chances of winding up on the wrong side of a gun against the profits to be made. Probably as important as any official penalties are the risks of being cheated, robbed or killed by others involved in the smuggling.

Costs are also associated with the currency exchanges necessary to any international transaction. We may assume that the tea producer in B eventually needs to have B's currency to buy his daily needs, while the sale of the

tea in A will at some level be in A's currency. Therefore the exchange rate between B and A is going to be a critical factor. The transactions will all be outside official channels, so the relevant rate is the black market exchange rate rather than the official rate. It is quite possible that the currency aspects of the deal are an added incentive to the smuggling and perhaps the primary motive. One could imagine an official exchange rate between A and B of one to one, while the black market puts a two to one premium on A's currency. In such a case, the smuggling could be viewed as simply a means of acquiring some of A's currency, which can then be exchanged for great profit in the currency black market.

A final category of costs are the costs of getting information. Since by its nature a black market has to operate in some degree of secrecy, a potential entrant into the market must somehow find out what the ropes are. He can not generally go to the local extension agent for information on the latest prices and contact points for the local smuggling operation (though one probably shouldn't rule out this source of information as totally implausible in some few cases), but he must instead rely on informal contacts. The returns are quite uncertain and the risks difficult to measure. Many people who might otherwise be involved in smuggling are not, simply because they don't know how to do it or don't have enough information to make them confident of what they would be doing.

We now have a rather formidable list of costs that the tea producer has to take into account in deciding whether or not to smuggle his tea to Country A. In practice the producer himself may not be involved in the whole process, but at each stage of the way there will be someone who must evaluate the same set of costs. Some conditions are generally more favorable to smuggling than others. We would expect smuggling to be more likely if there is a substantial

premium in price for the good in a neighboring country. In measuring the premium, the black market exchange rate will be a far more useful guide than the official exchange rate, and the prices to be compared are the producer sale prices. Good transportation systems crossing a sparsely guarded border with easily corrupted underpaid officials helps as well. Minor penalties or rarely enforced major penalties combined with local support for the smuggler and a well-developed system of contacts are also very encouraging.

Who loses and who gains if the tea producer decides to go outside official channels? He certainly gains as an individual (unless he miscalculates about some of the risks) by ending up with more local currency for his crop than he would have received from the official market. His increased wealth is likely to spill over to some of the rest of the community; more purchases at the local stores. Country A does not appear to suffer. In effect it is buying tea with its local currency at the same price it pays for any other tea it buys. It can sell the tea and earn foreign exchange and export tax revenue on it. All in all, this isn't a bad deal and it wouldn't be surprising to find Country A a bit sluggish in helping Country B stamp out tea smuggling.

The losses appear to fall primarily on Country B. Both export tax earnings and the surplus from the state trading company are reduced. The trading company may feel forced to lower its producer price in order to make up for its reduced revenues, while the government may see a need to increase the export tax rate to make up the shortfall in tax collections. This leads in turn to further increase in the price differential between A and B and still more smuggling. Increased enforcement efforts at the border may help raise the cost of smuggling but are likely to be done in such a heavy-handed way that they increase support for the smugglers, which in effect reduces their

costs. All considered, Country B is in an unpleasant situation until it is able to address the price differential that initiates the whole process.

One might wonder if it is possible to have smuggling going on both ways across the border. Could the producers of tea in A be smuggling it into B while the producers of tea in B smuggled theirs into A? It is extremely doubtful that both could occur simultaneously. Smuggling is a response to a substantial price differential. It takes quite a large price difference to compensate for all the costs involved, so if there is any illegal movement across the border, the economic motivation is for a purely one-way flow. Political considerations might alter this somewhat. One can imagine political dissidents on both sides of the border smuggling goods out of their respective countries, but it is unlikely that the group "going uphill" economically is going to be of much importance.

More likely is that one time smuggling is from A to B while at a different time it goes in the opposite direction. A new tax, a change in marketing incentives or an external event affecting the black market exchange rate could easily change the direction of flow of smuggled goods literally overnight. Tea could also go from A to B while coffee moved from B to A. The incentive to smuggle is not a general characteristic of the two countries involved. Instead it depends on a number of conditions specific to a particular good.

In the case discussed above, the analysis was simplified because it was assumed that the commodity involved was primarily of interest for export. Tea was not being smuggled to Country A to meet the needs of local consumers, rather it was for exporters. If we take another commodity, meat, we have both internal demand for consumption as well as the potential for export. Let us now assume two countries, C and D, both of which have a domestic beef

industry. Country C has a meat marketing board which buys cattle at a fixed price, has a legal monopoly on processing the meat and then sells what it doesn't export at a fixed retail price locally. Country D has a freer cattle market but a subsidized state processing industry which attempts to keep prices low as a part of a general government policy of keeping the cost of living for the politically important urban dwellers at the lowest possible level.

We again have the potential for black market activities. The gap between the cattle price and the processed meat price opens the possibility of a profit being made by someone able to process meat more efficiently than the meat marketing board. The independent processor has the advantage of being able to pay a slight premium over the official price for stock of better than average quality or located in areas more readily accessible to market. The state firm is likely to have little discretion in price, paying, in the interest of fairness, the same price regardless of location.

At the same time, the international price difference may make it profitable to smuggle cattle across the border to D, taking advantage of the higher cattle prices there, and then smuggle the processed meat back, taking advantage of the high price in C. While this may seem an unlikely scenario, heavily subsidized industries can cause some remarkable distortions in resource allocation. For example, there is a report from China that the price of bread was at one point so heavily subsidized that it was cheaper to feed pigs bread than anything else.

Additional problems can arise if the state marketing board in Country C is unable to clear the market in the face of the wide swings in supply to be expected in agricultural products. Let us suppose a drought strikes the country making it expensive to carry livestock. If the marketing board cannot

purchase all the cattle offered at the official price, the unpurchased supply will almost certainly be diverted to a black market. The lower black market price gives the independent processor an advantage in costs, and he will be able to capture an increased share of the retail market just at the time when the marketing board would like to sell as much as it can to reduce its inventory.

On the other hand, if disease, for example, has already seriously depleted the stock of cattle, the marketing board may not be able to buy enough to meet retail demands at its official price. The black market can now respond by offering a premium to cattle sellers and easily pass on the additional cost to retail buyers frustrated by the empty shelves and cases in the official outlets.

As in the case of smuggling, the illegal operator is exploiting price differentials. In some cases these are caused by inflexible official prices often inappropriately selected. In other cases the price differential is created by the failure of the official market to buy or sell enough to satisfy its customers.

Government enforcement efforts sometimes have the effect of stimulating the black market. Let us suppose that the official market cannot provide enough meat at the official price to meet the demand for it. If, as is likely, a black market springs up, the government may decide to penalize participants in the market. If the enforcement effort is concentrated on the sellers, the black market price tends to remain high or may be driven even higher. There is still a strong demand and the large price premium over the official market attracts new sellers into the market. On the other hand, if the government cracks down on the buyers, the effect is to reduce the black

market price. With less incentive to enter the market, there will be fewer suppliers and the importance of the market will fade.

In spite of this, governments prefer to concentrate their enforcement efforts on the sellers, probably because it is politically more acceptable to jail the shop owner rather than his customers. In addition the authorities no doubt feel they have done more by putting a shopkeeper in jail compared to just one of his customers. This attitude resembles that in the United States where it is felt that concentrating on large drug dealers will somehow stop the drug trade. Instead, a successful large drug bust just raises drug prices, making it an even more attractive business for other dealers. As long as nothing is done about reducing demand, the victimless crime of black marketing will remain quite persistent. This suggests that the government of Country C would be best off if it concentrated its efforts on increasing the official supply of meat by raising the buying price or decreasing the demand by letting the official retail price drift upward.

While hypothetical examples are useful for illustrating some of the factors that appear to influence the non-official markets in a country, real data would of course be preferable. However, it is difficult to imagine a subject where the data would be less easy to obtain than smuggling and black markets in Africa. Data on criminal activity is rarely accurately reported by the criminals themselves, while the law enforcement officials have a vested interest in either exaggerating the problem (at budget time) or minimizing it (when questioned about their effectiveness). There are no victims of smuggling to make reports as might be the case with violent crime, so we are left very much in the dark with respect to the actual numbers involved. To give some idea of the problem, a study of violent crime rates in American cities was recently made. Using police reports and surveys of victims, two crime

rates were calculated for each city. It was then found that the two rates were inversely related to each other. Cities in which the police reported high crime rates had low rates reported by victim surveys, while the reverse was true for cities with low rates reported by the police. One can conclude from this that one of the sets of data was wrong at least, but very little more. The African context and the lack of victims would obviously greatly compound any data problems that might be inherent in studying criminal behavior. Perhaps large quantities of dedicated graduate students, all writing dissertations on informal trade and well scattered among border villages could come up with some interesting data, but changes in economic, social and environmental conditions would probably make their information obsolete before their committees got around to reading it.

Notwithstanding this less-than-optimistic view about data, it is still possible to look at a few East African cases of illegal market activity, keeping in mind that the facts may not be exactly as represented. The first case deals with smuggling of coffee and to a lesser degree cotton and cattle out of Uganda in the late 1970's. The second case deals with the problems of the Kenya maize market in the early 1970's.

The 1979 Commonwealth Secretariat report on Uganda identified incorrect product pricing as the major cause of problems in the Ugandan agricultural sector. Among the problems were sharply reduced production of economically important crops and diversion of resources to less desirable activities such as informal brewing and smuggling. The team found the smuggling problem to be most severe for coffee. They identified a number of factors that encouraged the smuggling of coffee to Kenya. Among these was a lower transport cost than to Tanzania, Rwanda or Zaire and a relatively open frontier for example, over Mt. Elgen or along numerous tracks between Malaba and Busia. In addition, the

Bugisu arabica coffee is quite similar to the coffee grown in parts of Kenya. The Kenya-Uganda price differential which drives the smuggling arises primarily from an extremely high combination of export tax and contribution to the government Coffee Price Assistance Fund. It is estimated that as much as 75% of the crop value went to the Ministry of Finance. In addition, there was a black market premium for Kenyan currency over the Ugandan shilling. The net effect of all this was that smugglers could afford to offer Ugandan coffee producers 2 to 2.5 times the official Ugandan price at the farmgate. It is not surprising that many producers took advantage of the offer.

Cotton smuggling also took place in spite of the fact that it is rather bulky and is subsidized by the Ugandan government. At the official exchange rate, the Kenyan price for cotton is actually lower than the Ugandan price. However, the black market currency rate differential more than compensates for this, again providing an incentive to move cotton across the border to gain the much higher purchasing power of the Kenyan shilling. Unlike the case of coffee, where there is room to reduce a punitive export tax and therefore substantially raise the producer price to choke off smuggling, the cotton industry is in very bad shape, needing a massive overhaul of facilities and support services.

While the relative strength of Kenya's coffee and cotton markets was able to attract smugglers from Uganda, Kenya was at the same time having trouble with its maize market. Maize is the dominant food in Kenya, particularly among low-income families. The Maize and Produce Board was established to "regulate, control and improve maize supply and marketing" and has monopoly powers with respect to any market transactions. Only local sales of locally produced maize by producers are permitted.

A fundamental purpose of the Maize and Produce Board is to insure an even distribution of maize in Kenya. If a local area produces a surplus of maize, so that the local price falls below the Board buying price, the Board is supposed to buy up all of the surplus, effectively putting a floor on the price and building up stocks to be used to meet shortages elsewhere. Should a local shortage develop, pushing the local price up above the Board selling price, the Board is expected to bring maize to the area and sell it to the local customers at the official selling price. As long as the price remains between the selling and buying price, the price and quantity is presumed to be determined by free market forces although buyers and sellers from outside the local area are not allowed to participate in the market.

In fact, the Board is not always able to meet these responsibilities. Any pricing scheme administered by the government that is going to avoid accumulating unmanageable surpluses or national shortages has to be both flexible and lucky. Kenya's policy has been neither. When local shortages or surpluses do develop, the price incentives for a black market arise. The government response is to add additional regulations and rules. These in turn create new opportunities for black market operations. Since consumers really want to buy maize and the producers really want to sell it, almost any black market situation seems preferable to the shortages and failures of the official system to purchase the maize. So much of the maize crop is distributed outside of the official channels that the Maize and Produce Board is a minor factor in the market. It was estimated that the Board handled only about 10 percent of the crop in 1966. While that exact figure must be taken with a grain of salt, most commentators agree that the Board, with its maze of regulations and poor judgement on timing of its exports, has probably made things worse than they otherwise would be in its absence. In this case it is quite

possible that even after taking account of the costs of the illegal market (encouraging corruption and disrespect for the law, among others) it may not be a real social problem.

Are there any indicators that might give an early warning of the development of smuggling or other black market activity? Are there policies that could be followed to effectively eliminate such activities when they appear? The paper's answer to the first question is that there is probably no way of accurately predicting an outbreak of smuggling. A deterioration of the black market exchange rate with respect to the official rate may open up possibilities. Products which are heavily taxed in one form or another are likely candidates, as are those of high value to weight or bulk. Any change in government policy with respect to a commodity on either side of the border can be looked at to see if it is likely to alter the price differential in a way more or less conducive to smuggling. One tries to put oneself in the place of the producer of the commodity and see if there seems to be much of an inducement to engage in smuggling.

If one were to want a single measure that might be a useful starting point for further investigations, it would be helpful to calculate the farmgate price of the major commodities that have some potential for being smuggled. A similar series of farmgate prices could be calculated for the same commodities in neighboring countries. One would have to be careful to use the black market exchange rate for currency conversions rather than the official rate. The data for these series are reasonably easy to obtain for observers on the scene but of course are rarely published. The published data on export prices and official exchange rates would be a very poor substitute.

The comparisons of local farmgate prices with those of neighboring countries would give some idea of the effective margin a potential smuggler has to

work with. One could estimate which way the flow would go if smuggling developed, and while the relative prices in themselves would not clearly distinguish situations where smuggling was taking place, it would at least focus attention on a small number of markets which might be investigated further. (Flying squads of anthropologists could be quickly deployed in suspicious areas.)

The question of what policy to use to combat smuggling is more difficult. One of the first analysts to deal with the question was the economist and criminologist Cesare Beccaria, an Italian of the eighteenth century. While his tentative analysis of the problem of contraband goods did not reach any conclusions, it pointed to the need to consider the trade-off between stricter (and more expensive) enforcement and reduction of the incentive for smuggling (in his analysis a tariff). It would seem that the place to begin would be to examine the policy that is leading to the smuggling in the first place. One can argue that the Ugandan government would have been better off if it reduced the export tax to something approaching the more modest levels of the surrounding countries. While the amount of tax collected per bag of coffee would have been reduced, the increased amount of coffee flowing in the official channels would have largely compensated for that.

Likewise, the solution for a black market premium against the Ugandan shilling is not necessarily a stepped-up enforcement of currency regulations, but rather an effort to restore confidence in the currency by strengthening the economy. While such things are much easier said than done, there seems to be a bias on the part of governments to solve problems by regulation rather than attacking the underlying causes of the problem. Black markets enjoy widespread support and are unlikely to be eliminated unless the underlying incentives are removed.

SELECTED BIBLIOGRAPHY

1. Bates, R.H. and M. Lofichie, eds. Agricultural Development in Africa: Issues of Public Policy. New York: Praeger, 1980.

A comprehensive review of most of the problems that can arise as the result of various types of government involvement with (or interference in) price determination.

2. Bhagwati, J. and B. Hansen. "A Theoretical Analysis of Smuggling." Quarterly Journal of Economics 87 (May 1973):172-187.

One of very few articles devoted solely to the problem of smuggling. A modern, rigorous approach, but fairly technical.

3. Browning, E. and W. Culbertson, Jr. "A Theory of Black Markets Under Price Control: Competition and Monopoly." Economic Inquiry 12 (June 1974):175-189.

Adds specific consideration of the penalty structure confronting black market operators to the theoretical analysis. Level and style similar to Bhagwati and Hansen.

4. Boulding, K.E. "A Note on the Theory of the Black Market." Canadian Journal of Economics and Political Science 13 (February 1947):115-118.

One of the first modern attempts to develop a theory of the black market. While it has some flaws which were pointed out by others, it is a relatively readable introduction to the theory.

5. Commonwealth Secretariat. The Rehabilitation of the Economy of Uganda. 2 vols. London: Commonwealth Fund for Technical Cooperation, 1979.

Papers 3 and 4 confirm a useful description of the factors leading to commodity smuggling in Uganda. One of very few attempts to look at actual cases of smuggling--quite well done.

6. Heyer, J.; J.K. Maitha; and W.M. Senga. Agricultural Development in Kenya: An Economic Assessment. Nairobi: Oxford University Press, 1976.

Chapter 1, by Heyer, has a good description of the structure of the agricultural marketing system and some of the structural and administrative problems that lead to the development of black markets.

7. Hudson, C.F. "The Economic Theory of Black Markets." MA Thesis, Department of Economics, University of Colorado, 1981.

A good review and rather complete guide to the economics literature on all types of black markets. Relatively little on smuggling.

8. Stein, L. The Growth of East African Exports and Their Effect on Economic Development. London: Croon Helm, 1979.

A comprehensive look at the pattern of East African exports over the years 1959-1971. A considerable amount of data.