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ALFRED P. SLOAN SCHOOL OF MANAGEMENT

INTERNATIONAL BARTER*

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I. Introduction

Barter is the oldest form of trade. The payment for goods with goods predates the invention of money and is still with us today. This paper has two purposes: first, to expose the student of international business to this form of trade between nations; and second, to contradict the sentiments expressed in this quotation:

> "It is difficult for Americans, so committed to free trade, to understand the logic behind trade without money. Perhaps there is no 'logic,' at least in terms of traditional Western economic theory. Maybe there are only reasons that few Americans can understand and even fewer can accept."[1]

In this section we summarily review the nature of 'trade without money' and its recent history. Section II examines the various modes of barter in some detail, focusing on the common provisions and pitfalls of such transactions. Section III discusses two proximate causes for barter, price distortions and the need for liquidity, and two benefits, improvement in the terms of trade and the creation of long-term contracts and trading relationships. Section IV concerns itself with the political-economy of barter, that is, the reasons behind the proximate causes. The aim here is to show that barter is a consequence of several different 'logics' depending on the countries involved. The section assesses the future of barter based on these disparate origins and argues that only in the case of the East Bloc's trade can one expect barter to grow in importance over time.

Barter is a highly inflexible form of trade. It requires that both parties to the transaction each want the other's products, and at the same time. Money, on the other hand, serves as a medium of exchange and as a store of value. The exchange of goods for money (monetary trade) therefore removes the two sources of rigidity in barter. Trade can be multilateral and spread over time rather than having to be bilateral and instantaneous.

A seller accepts money because he knows he can use it to purchase goods he does want, even if he must buy them from some third party. Since it has value, the seller does not have to convert it into goods immediately, but can, instead, store it for use at some later date. Basically, it is more efficient for all traders to agree to accept in exchange some "store of value" commodity that is cheap to produce, store, transfer, and is not eroded by consumption. Money, especially in the form of bank deposits, meets these criteria. For barter to flourish, there must be some reason that monetary trade is not possible, or perhaps not desired.

Despite the advantage of monetary trade, countries and firms do engage in barter. Barter thrives at times of inflation, slump, or uncertainty. The destruction of most trading nations' foreign reserves after World War I led to the upsurge of barter trade in the 1920's. In the 1930's, Hitler's finance minister, Hjalmar Schacht, accomplished the growth of Germany's economy despite the depression through barter deals. After World War II, most of the European currencies, East and West, were inconvertible. During this period, the U.S. acted as the world's "banker" by running balance of payment deficits which enabled the nations of Western Europe to use dollars in their international trade. Even so, these countries did not return to convertibility until 1958, and in the meantime negotiated hundreds of bilateral clearing agreement with each other. The East Bloc (EB) was less able, partially because of the Cold War, to generate and use dollars. The U.S.S.R. and the Eastern European countries relied instead on clearing agreements among themselves and with Western Europe. Later, they extended this mechanism to their trade with other countries with inconvertible currencies, especially the LDC's.

The OPEC oil-price rise in 1973 led many European countries to exchange manufactured goods, nuclear power stations, and military hardware for oil. Barter does not, of course, have to be international. In 1974, the U.S. Federal

Trade Commission claimed that barter was becoming a standard way for many of the country's largest corporations to obtain products that were otherwise scarce. This is particularly true in the steel and chemical industries where the big companies swap their stockpiles of raw materials between themselves, as required, to smooth out any shortages.

Individuals also commonly engage in barter. For example, there are reports that as income taxes rise, individuals are exchanging services in order to reduce their money income. Thus doctors will exchange medical care for plumbing, or accountants, bookkeeping for wills. However, we will restrict our discussion to barter in international trade.

Of the Western countries, West Germany is the biggest barterer because of its substantial trade volume with Communist countries. U.S. companies, long accustomed to straight cash deals, are being dragged very reluctantly into barter agreements. The Soviet Union and the East Bloc are quite committed to this form of trade and companies wishing to do business with them are finding that they must adjust. Barter is estimated to account for 15-20% of all East-West trade, and the figure could be as high as 40%.[2] In addition, many developing countries are turning to barter in their trade with the developed countries. Barter already accounts for some 60% of the trade between the LDCs and Russia and Eastern Europe.[3] While today, the Peoples' Republic of China conducts most of its trade with the developed countries in hard currency, it too relies almost exclusively on barter for its trade with developing countries.

Barter trade has given rise to a number of firms, primarily in Europe, that specialize in arranging and negotiating such arrangements either on their own account or on behalf of Western firms selling to the East Bloc and the LDCs, and in disposing of the goods acquired. These firms are known by many names, such as intermerchants, barter-switch houses, or compensation traders, but all perform substantially the same services. Certain large manufacturing firms, such as Siemens and Douglas Aircraft have established in-house barter depart-

ments to service their own requirements. A number of European banks also have departments or subsidiaries with expertise in this area.

Western firms usually do not know of the marketability of the barter goods offered as compensation. The barter specialist can advise which goods are likely to be offered, which are most saleable, and what price concessions will have to be offered to buyers in order to sell the goods on world markets. Frequently, companies will engage a barter house to negotiate the trade, buy the products at established prices, and/or do the final marketing. The barter specialists' fee will vary with the countries and commodities involved and the amount of time the firm is willing to allow for marketing the goods.

In the East Bloc countries (EBCs), Foreign Trade Organizations (FTOs) perform some of the same functions as the barter specialists. These organizations carry out all foreign trade. They act as intermediaries between domestic enterprises and foreign firms, negotiating both convential trade and barter and gathering market intelligence. Many LDCs have similar organizations, or assign these responsibilities to the Ministry of Trade or Finance.

II. Modes of Barter

The general term "barter trade" comprises a number of different types of transactions. These are: (1) pure, partial, and local-currency barter, and compensation trade; (2) clearing agreements, switch, and *aller/retour*; and (3) product buy-back, co-production, and barter for services. Barter traders use many of these terms, though in practice frequently interchangeably and imprecisely. The modes are grouped to bring out some commonalities between them and will be discussed in much greater detail shortly.

The first group represents the exchange of goods. The distinctions reflect operational differences in the degree of monetarization of trade and the currencies used. These types of barter are common in East-West trade, among

the Less Developed Countries (LDCs), and between LDCs and the developed countries of the West.

Clearing agreements provide liquidity and credit to countries with inconvertible currencies. Switch and aller/retour have developed as a bridge between the agreements and international markets. Clearing agreements are very common among East Bloc Countries (EBCs) and between EBCs and LDCs.

The last group represents barter for intangibles. Product buy-back and co-production both have a component of technology transfer paid for in goods. Barter for services refers to the exchange of marketing services for products. The first two modes in this group occur almost exclusively in East-West trade. The third is an aspect of most barters.

As was pointed out in the previous section, pure barter is very inflexible. The other modes represent ways countries and traders have found to relax some of the constraints it imposes, but without going completely to monetary trade.

A. Group 1: Exchange of Goods

i) Pure Barter

In pure barter, money enters into the transaction at most as a unit of account. The parties may refer to the trade as involving goods worth X million dollars, but negotiations are actually in terms of physical quantities. This type of trade seems relatively rare. When it does occur, the size of the transaction is frequently very large and tends to be negotiated on a government-to-government basis.

The 1973/74 oil crisis gave rise to several such barters. In December 1974, France agreed to swap a long list of industrial products, hydroelectric power stations, and arms to Iran in return for a guaranteed supply of oil. Similarly, Britain agreed to buy five million tons of oil from Iran in exchange for £ 110 million of steel, cement, rubber, and paper. Iran negotiated the sale of these

products directly with the individual companies. Had the companies failed to reach an agreement, the British government would have had to intervene as best it could. These kinds of deals are as much exercises in diplomacy as anything else with the oil purchasing countries trying to assure themselves of oil supplies. (See Section IIID)

One recent case of pure barter involved the exchange between Bangladesh and Pakistan of jute for cotton. The negotiators agreed on the quantity to be traded and that the transfer would occur simultaneously. The two countries engaged in a barter partially to conserve scarce hard currency, and partially because they still are not on friendly terms with each other and were unwilling therefore to extend credit.[4]

ii) Partial Barter

Partial barter is common in East-West trade. In this mode the EB buyer pays in both goods and hard currency. Negotiation establishes the proportion with 20% to 50% in goods being typical. Recently, in an attempt to reduce their trade deficits, the EBCs have increased their pressure on Western firms to accept partial barter and to take a greater proportion of goods.

The East European FTO which negotiates the deal offers the goods that it handles as payment. If these are not saleable in world markets, the firm may get permission to take products handled by other FTOs. Although the agreement will authorize the Western firm to buy a variety of products, when these are the responsibility of FTOs other than the one that negotiated the barter, it may be very difficult to get the formers' cooperation. This is a frequent problem. Each FTO has its own import requirements and hard currency earnings quotas. No Foreign Trade Organization will willingly offer goods which it has no trouble selling abroad. The Western firm may continuously have to urge the East Bloc buyer to encourage its sister trading organizations actually to permit the agreed-upon exports. Firms not meeting their export obligations will generally

have to pay a penalty of 10-20% of the value of their barter commitment.[5]

The EB buyers with whom the Western firms deal are professional negotiators and very astute. One common bargaining ploy often encountered is the "double trap-door trick."[6] The EB negotiator initially suggests a cash payment and demands the Western firm's best price. He then lets the foreign sales manager stew for weeks in his hotel room. Just as the contract is about to be signed, the negotiator announces that his government requires partial barter. If the manager's profit margin is large enough, he may agree to barter provisions. At that point the negotiator springs the second trap-door. Announcing that he has managed to get permission to pay in cash, he demands a further discount since the manager now does not have to take goods.

In another ploy, the FTO offers a highly saleable product. Again, just before signing the agreement, the negotiator informs the Western firm that it may sell the product only in certain markets since in the other (usually most attractive) markets the FTO has already granted an exclusive agency. If the Western firm wishes to sell the goods in these markets it will have to pay sizeable commissions to the FTO's agents.[7] If it accepts a partial barter, the experienced Western firm ensures that the barter goods are exactly described in an annex to the main export contract. The description includes quantity, unit value, and quality provisions. The agreements also specify the period over which the EBC is to deliver the barter goods and the Western firm to accept them, with one year appearing to be the usual term.[8]

Clearly, the Western firm must do its homework before entering into negotiations. It must, in effect, calculate an expected cost of barter provisions, so that it can mark up its minimum price to a level where the firm can accept the transaction while maintaining its profit margins. One possible tactic is to develop a "worst case" hard currency price on the basis of having to take the usual barter proportion, the cost of discounting the barter goods, and the

payment of a non-performance penalty. If the East Bloc buyer balks at the price, the Western firm can then counter-propose barter, reducing the price as the contract provisions become more concrete. To do this the firm must have a good idea of the products which are actually exportable, and the discounts that these require. Basically, the firm should prepare a schedule of minimum prices so that its final minimum will match the barter it accepts.

Sometimes a company will not mark-up its prices to cover barter costs. It may instead use the barter to discriminate in its pricing. By absorbing the costs, the company gives the buyer a discount. The effective discount is hidden though from competitors and other customers.

iii) Local-Currency Barter

This mode differs from the preceeding one only in its mechanism. The Western firm sells its goods and accepts payment in the local currency. Under the terms of the agreement it can use these funds to buy from a list of local products. As in the case of partial barter, the list is the subject of negotiation. As an example of this mode, let us examine in some detail an actual agreement in a developing country.

A few years ago, a Swiss pharmaceutical company entered into a barter agreement with Bangladesh. The barter ran for three years and was renewed recently. The Swiss firm invoiced its pharmaceutical shipments in Swiss francs but accepted payment in Bangladesh taka in a local account. A Swiss barter house helped negotiate the deal and administered it for a fee. There were four categories of barter goods: (1) jute; (2) tea; (3) hides and skins, and shrimp; and (4) miscellaneous goods comprising everything from beeswax and handicrafts to electric cables. The Swiss firm could only apply about one quarter of its local sales revenue to each category. The first three categories posed no marketing problems. The barter house merely contacted other European and American firms already buying the goods in question from Bangladesh and persuaded

them to route their purchases through the barter account in return for a discount. The European firm would inform its Bangladesh supplier that he would receive payment in local currency. It would then pay hard currency to the barter house which in turn would instruct its Bangladesh bank to pay taka to the seller. The European buyer would end up paying, say, 95¢ for 10 taka worth of jute instead of the $1 it would have had to pay without the barter. The Bangladesh supplier did not care since he would have had to surrender his hard currency earnings to the Central Bank anyway and thus was no worse off.

Since the European buyers knew the discounts they would receive beforehand, the barter often rebounded to the sellers' advantage. It reduced the "export tax" effect of the overvalued exchange rate (See Section 111A) and thus led to some increase in prices received and volume sold.

The discount necessary to draw Western buyers into routing their purchases through the Bangladesh barter ranged from a low of 2% for tea to a high of 8-10% for hides and skins. For miscellaneous products, though, the discount ranged from a low of 10-15% on some agricultural commodities to 25-30% for handicrafts. Low quality, even in fairly unprocessed commodities such as honey and molasses, was a recurring problem. It was especially severe in the case of semi-manufactures such as newsprint. Frequently, even when quality was acceptable as in the case of shoe-uppers, local production costs were too high. Bangladesh, like many other LDCs, was particularly interested in promoting the sale of handicrafts since this would directly help rural incomes. However, the developed countries demand for handicrafts is limited, and the marketing effort required is disproportionately high since there are few bulk buyers. Finally, the barter house sometimes found buying opportunities in goods not on the miscellaneous list. Before it could get government permission to buy the product in question the opportunity would usually have passed. Overall, the Swiss manufacturer estimated that in order to maintain its margins, it would have to mark-up its prices about 35% to cover the barter costs.

In its agreement with the Bangladesh government, the Swiss firm received the right to operate its taka account in overdraft. When the barter house had sold a sufficient quantity of Bangladeshi products to bring the account down to its overdraft limit, the Swiss firm would ship enough pharmaceuticals to bring the account back up to a zero balance. This ensured that if Bangladesh devalued, as it did, the company would get a foreign exchange gain rather than a loss. The barter house's success in selling Bangladeshi products therefore constrained the pace of pharmaceutical shipments. This pace became quite slow towards the end of the agreement period when only the miscellaneous quota remained unfilled and led to some friction between the government and the manufacturer.

iv) Compensation Trade

Compenstion trade or counter-purchase involves at least two parallel contracts. On the one hand, the Western firm is paid in hard currency for its products. On the other, it signs a separate contract to buy an equal value of goods from the importing company. The reason for the two contracts is that most Western countries will only provide government export credits and guarantees for exports that are paid for in cash. There is frequently a third contract also, the financing package. The Western firm's commercial bank and the appropriate Foreign Trade Bank or other EB bank authorized to deal in foreign exchange arrange this among themselves.[9]

PepsiCo's arrangement with the USSR is a good example of compensation trade. Pepsi ships syrup to Novorossiyak where the Russians bottle it under the company's supervision. The Soviets then distribute and sell the soft drink throughout the country. PepsiCo agreed to take Stolichnaya vodka in payment for its syrup and the use of its trademark. What converts this transaction from a pure barter to a compensation agreement is that the amount of syrup which the USSR buys depends on the amount of vodka Pepsi can sell in the US.[10]

B. Group 2:

Clearing Agreements, Switch, and Aller/Retour

i) Clearing Agreements

A clearing agreements represents monetary trade using a "book" money. The two countries establishing the arrangement agree to exchange products over some specified period and up to some maximum value. Each country agrees to accept as payment for its exports to the other a credit in a special account maintained in its name in the other's Central Bank. Debits to this clearing account then pay for imports from the other country. The accounts may be denominated in the partners' own currencies or use some other currency as numeraire. In the latter case the account balances are known as "clearing dollars," "clearing Deutsche Mark," etc. Whatever currencies are used, the agreement specifies the exchange rates that will apply. It also established a "swing" -- a limit on the degree to which the accounts, and therefore trade, may be out of balance. Clearing accounts rarely pay interest on credit balances or charge it on debit ones. If trade between the two countries is not in balance on the settlement date, the deficit either carries over to a new agreement or is wiped clean by the acceptance of unwanted goods or the payment of hard currency. Finally, the agreement often specifies the goods to be traded and their value.

An example may make all this clearer. Let us suppose that on January 1, 1976, Russia and India sign a $100 clearing agreeing. The swing is 30% of the agreement value, the period is one year, and any closing deficit must be settled in dollars. The countries establish accounts (symbolized by the T accounts below) in their central banks. On March 31, the USSR sells $25 worth of goods to India. The Indians credit the Russian's account with them, and the Russians debit the Indian's account in Moscow. On June 31, the Indians sell $50 worth of cotton to the USSR. The Russians credit the Indians' account with them, and the Indians debit the Russians' account in New Delhi. On September 31, the Russians sell $55 worth of machine tools to India. The USSR can not sell any

more to India since they have reached the swing, that is, they have sold $30 worth of goods more than they have bought. There are no further transactions and at midnight on December 31, the accounts are closed. The Russians have a $30 credit balance with the Indians, and the latter have an equal debit balance with the former. The Indians credit the Russian account $30 and pay them that amount in hard currency. The Russians apply the cash against the Indian deficit.

	USSR		India	
March 31	25			25
June 31		50	50	
September 31	55			55
December 31	80	50	50	80
Cash Transfer		30	30	
	80	80	80	80

One can see that the clearing agreement has both monetary and credit aspects. Both countries paid for their imports from the other with bank deposits, and accepted these in payment for their exports. Throughout the year one country or the other was in debt (had a debit balance in its account with the other). The clearing agreement is more efficient than pure barter because it requires neither synchronization of transactions nor perfect balance. It has many of the advantages of monetary trade while minimizing the use of scarce hard currency. Operationally, although the initial negotiations may be cumbersome, the agreements, once accomplished, may run for years with little administration. Nonetheless, there are disadvantages.

The first is that as soon as one partner reaches the ceiling or the swing, trade stops. Triangular clearing agreements like the one established in 1974 between Russia, India, and Indonesia overcome this to a degree, but are very difficult to negotiate.

A second disadvantage is that countries can easily find themselves saddled

with barter goods that they do not really want. This occurs when a country settles its deficit in goods. In the example above, suppose India had paid in brass incense burners rather than dollars.

A third disadvantage is that since the agreements do not provide for interest payments or charges, the trading partners have little incentive to reduce deficits quickly.

Finally, certain countries have had bad experiences in trading with the Communist Bloc. Egypt and Pakistan, in particular, did not benefit from rises in commodity prices in the early 1970's because they had regularly bartered saleable commodities to Eastern Europe two or three years in advance of actual deliveries.[12]

Clearing agreement imbalances and the problems of unwanted goods have led to the development of "switch," and aller/retour. Aller and retour ("to go" and "return," in French) are essentially types of switch trade. The switch trader disposes of goods on the world market that a country has agreed to accept under a clearing agreement, but for which it has no use. He may direct an unwanted cargo of, for instance, shoes from Pakistan en route to Bulgaria, to Hamburg or Rotterdam where the trader "switches" their desintation. He seels the shoes for hard currency to an importer in Europe or in the U.S. and pays the Bulgarians, charging them a commission for his services. In 1970, Bulgaria switched 73% of its trade with West Pakistan to third markets.[13]

This type of switch is frequently referred to as retour. Figure 1 below illustrates such a transaction.

Figure 1

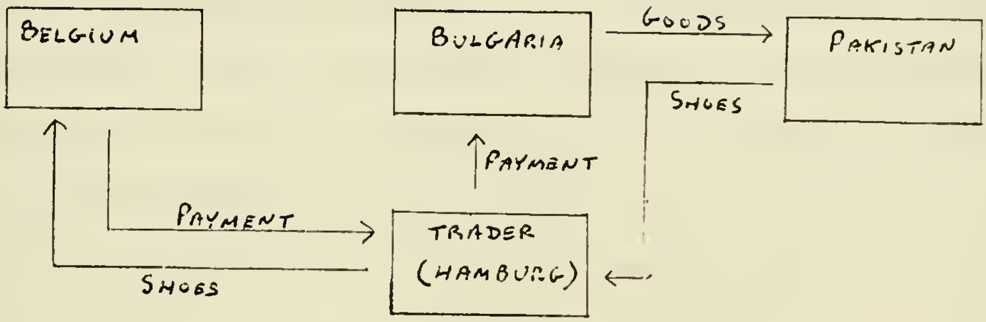
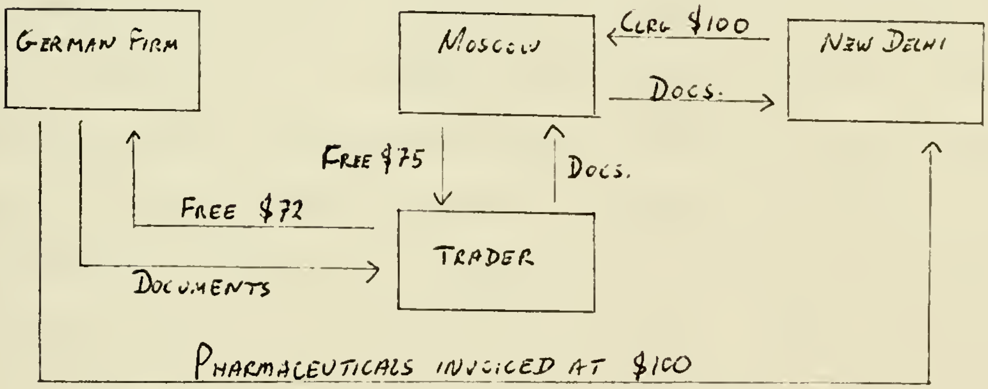


FIGURE 2



As an example of aller (Figure 2), suppose Russia has agreed to trade India pharmaceuticals for tea. It accepts the tea but doesn't have the chemicals available. It contacts a switch trader in Lausanne who, in turn, finds a German pharmaceutical company with excess inventory. The German ships the goods in neutral packing from Hamburg. The Russians pay the trader in hard currency at an agreed upon discount from the invoice amount. The trader then pays the Germans, after first subtracting his fee. The cargo documents pass through Moscow on their way to India. Here they are switched to indicate Russian origin and shipment via Hamburg.

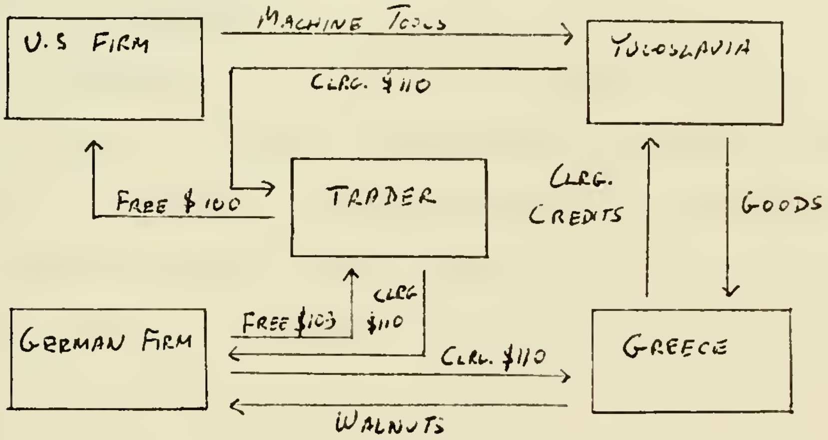
In the past, some Western countries have used _aller_ to get the profits of their subsidiaries out of countries when exchange controls have restricted repatriation. This requires the cooperation, arranged by a switch trader, of an East Bloc country with a clearing debit balance in its trade with the LDC in question. The subsidiary applies for and receives permission from its country's central bank to import raw materials or components via the agreement. The company ships the goods to its subsidiary and over-invoices for them. As in ordinary _aller_ transactions, the goods purport to be of East European origin, and payments and documents flow through the clearing channels. Goods worth $100,000 in free currency are invoiced at $220,000. The EBC pays the shipper $200,000 in hard currency and receives a credit of the full invoice amount against its debit balance with the LDC. The shipper pays the switch trader for his services. The subsidiary receives the goods and pays its country's Central Bank the countervalue of $220,000 in local currency at the official exchange rate. The company has succeeded in extracting its profits via a seemingly arms-length transaction. The EBC has earned a fee and reduced its deficit. Only the LDC has lost in that the company has evaded the government's restrictions. Such transactions are rare, but they do occur despite LDC government's attempts to prevent them. _Aller_ and _retour_ are fairly simple transactions. Clearing agreements can give rise to more complex ones.

East European countries often sell more under a clearing agreement than they buy and may offer their clearing credits to Western firms instead of hard currency as payment for purchases. The firm can then either use the clearing credits to buy goods it needs or can sell internationally, or it can sell them to a switch hourse at a discount. The size of the discount will depend on in which country the credit is useable, and against what goods. The following example may clarify this procedure.

An American wants to sell to Yugoslavia. He approaches a switch trader

who informs him that the Yugoslavs are currently offering payment in Greek clearing dollars on which the prevailing discount is 10%. The American marks his price up from $100,000 to $110,000. If the deal goes through, he accepts payment in Greek clearing which he sells to the trader for $100,000. The trader then finds a German importer who wants to buy walnuts from Greece. The German pays the trader $103,000 and gets the $110,000. The German buys the walnuts and the Greek exporter gets the local currency equivalent of the $110,000. The walnuts are ostensibly shipped to a Yugoslav port, but while en route the documents are amended and the destination is changed to Hamburg. For his services the trader gets the $3,000 difference between what the German paid him and what he had to pay the American.[13]

FIGURE 3:



This is still something of a simplication. Often the transactions involve several clearing and barter arrangements before the final shipment of merchandise is paid for in free exchange.

Switch trade serves a useful function. By providing a secondary market for bartered goods, it increases the barter's utility since countries can accept goods for which they do not themselves have a use. It can result in new customers and markets for LDC products when the switch traders have better market information than do the LDCs. By reversing the effects of an overvalued currency it brings prices more in line with world prices.

The exporting country may, however, still object to switching. The switch, rather than opening up a new market, may do no more than dump products in tra-

ditional markets. If Egypt is selling cotton to Europe, it does not want switched cotton sold there at a substantial discount. Not only does this annoy those customers who had paid the full price, but it also puts a downward pressure on the prices Egypt can charge in the future.

Countries often include a clause in barter or clearing agreements that prohibits re-export to third countries. But government officials generally know that strict adherence to such a clause would reduce their trade. Therefore, while including the clause, they agree to the naming of a convenient third country port as the shipping destination.[14]

C. <u>Group 3: Barter for Intangibles</u>

i) <u>Product Buy-Back</u>

Under this system, the exporter in the West barters, to the EBC, the technology to build a factory in return for some of the output once it is in operation. The terms of such agreements may require that the firm buy back 20-30% of the plant's annual production for a period of 10-15 years. These arrangements suit the EBC's since they provide credit, guarantee some demand for the factory's output, and generate foreign exchange. Buy-back frequently poses problems, though, for the Western firm, particularly in the areas of quality, delivery, competition, and price.

Eastern European manufacturing output frequently does not match Western standards. Therefore, most agreements contain a clause giving the Western partner nearly absolute control over quality. Bendix agreed to build a spark plug plant in the USSR, and to market 25% of the output in the West. The plugs were to be marked "Made in the USSR" and sold under the Bendix label. The company, however, insisted on having its own inspectors in the plant with the right to reject substandard output. The negotiations stalled over this point for some time but now the Russians have agreed to the requirement and plans are going forward.[15]

It is risky to rely exclusively on deliveries from Eastern Europe in the initial stages of a cooperative venture. Initial production difficulties, both in producing the goods and in meeting quality standards, may cause failure to meet delivery dates. Delivery may also suffer from delays in receiving local raw materials or sub-components due to endemic shortages and back-logs of orders. Finally, the East European buyers often under-buy in terms of plant capacity and end up absorbing the entire output internally. The agreements usually provide for penalties (cash or goods) if the East Bloc firm cannot deliver on time or meet quality requirements. This can cut both ways since the agreements usually also provide for penalties in the event the Western firm does not carry out its purchase requirements.[16]

In selling its technology, the Western partner may be creating a new competitor. Firms usually do not sell their most recent technology or models and impose restrictions on export markets. The Eastern European buyers naturally resist these practices and the final contract will depend on the relative bargaining strengths and skills of the negotiators.

In some cases, the buyers will over-buy, that is, purchase capacity in excess of their current domestic requirements, with a view to exporting surplus production. As Fiat has discovered, even superseded models can provide competition. It is feeling the effects of sales in Europe and elsewhere of the Russian version of the Fiat 124.

The pricing clause of the contract often causes the greatest difficulty in negotiations. The Western partner usually delivers the equipment and machinery it is selling shortly after signing the contract. It can fix its prices and hold to them without great difficulty. East European production on the other hand will not commence for some time, perhaps two or three years, and may continue for more than a decade thereafter.

Expecting fixed prices for the East European firm's output over the whole period is clearly unrealistic. Instead, more recent contracts often have a

clause providing a mechanism for adjusting prices to changed conditions. Since the Western firm has no control over the East Bloc firm's cost calculations, a common solution is to tie the price to the Western firm's ex-factory price, or to the wholesale price in the firm's major markets, with prices and exact quantities being reviewed semi-annually or annually. Finally, agreements often provide for price adjustments due to mutually agreed upon quality changes.[17]

ii) Coproduction or Cooperation Agreements

In a co-production agreement, both partners customarily make reciprocal deliveries of components which they use in a jointly finished product. Generally, the East Bloc partner produces the majority of the parts, while the Western firm provides the more sophisticated components. The reciprocal deliveries represent a barter payment mechanism. This is completely separate from the mutual marketing and/or profit-sharing arrangements, if any, which the partners may make.

Western firms enter into cooperation agreements for a variety of reasons. In particular, they hope to get access to a new market and to take advantage of lower wages in the East Bloc. The Eastern European firms gain new technology and a wider market for their products. Even so, individual EB factories may enter into cooperation deals with reluctance despite governmental policy favoring such arrangements. Launching a new product in an existing plant can cause a temporary reduction in output and endanger the factory's overall plan fulfillment. Below plan performance means lower bonuses for management and workers and it is, therefore, not surprising if Eastern European managers show some lack of enthusiasm for the proposed venture. Producing the new product in a newly-built plant avoids this problem, but generally results in a longer "shakedown" period for output to reach planned quality and quantity targets. Coproduction is prone to many of the same problems as buy-back. Business International estimates that while Western and East European firms have established more than 1000 such ventures, many are now dormant because of the quality and price problems.[18]

iii) Barter as Payment for Services

Co-production and product buy-back include a component of barter for services. Goods pay for technical assistance. Many ordinary barters have a similar aspect in that the goods the Western firm or barter specialist accepts represent payment for marketing services as well as the original merchandise. Many EBC's and LDC's do not yet have the expertise and contacts to market their goods internationally. Developing a marketing network is expensive and takes time. In addition, the centralized EB economies do not provide an environment conducive to developing the necessary expertise domestically. While the countries could buy marketing services for cash, they prefer to conserve their hard currency.

III. Why Barter?

This section explores the reasons countries turn to barter in their international trade. The discussion posits four, the first pair representing sufficient causes and the second, benefits derivable from barter which are of themselves neither sufficient nor necessary since they are achievable via other arrangements.

The two sufficient reasons are: a) to adjust the relative prices at which goods trade when their nominal prices do not reflect their real scarcity value and b) to enable trade to take place despite the absence of some form of money acceptable to both trading parties. The two supplementary reasons are: c) to improve the countries' terms of trade and d) to establish long-term contracts and trading relationships.

A. Price Distortions

When prices are out of line with the real scarcity value of goods, individuals will turn to barter. For instance, after World War II prices in Germany were still frozen at 1936 levels even though wartime financing had increased liquid funds in the public's hands tenfold. Prices were so out of line that legal sale could frequently only take place at a financial loss. A small "black

market" (i.e., outright trading of goods for cash at illegal prices) developed, as did a great deal of "compensation trade." Sale took place at legal prices in money, augmented by compensation in real goods and services.[19]

Part of the explanation for the emergence of barter trade during periods of inflation, recession or uncertainty is that during these periods prices may be "sticky" for legal or institutional reasons. In particular, during periods when the actual inflation rate deviates substantially from the expected rate, sellers will be reluctant to trade for money since they will be unsure of the accuracy of their pricing, or of the utility of money as a store of value.

The 1973 OPEC cartel oil price increase gives an example of similar distortions operating internationally. The new oil price was clearly excessive in relation to that which would have resulted under pure competition. The Western countries engaged in barters for oil not only to assure themselves of supplies, but also to reduce the real price. The oil selling countries probably received a reduction in monopoly rents on the goods they bought, and avoided receiving payment in money the value of which they were uncertain. By taking payment in goods they were able to avoid some of the effects of the price-rise induced shocks to the Western economies and the concomitant inflation.

In the case of the EBCs and the LDCs, prices are frequently out of line with real scarcity values under ordinary circumstances. In the EBCs the government sets the prices, not the market, and on a basis other than marginal productivity or cost. This may occur in LDCs as well. However, the major price distortion common to both sets of countries involves fixed exchange rates. The countries' currencies are almost invariably overvalued. That is, the government will exchange local currency for, say, dollars at a rate of 10 local currency units to $1 when local residents would willingly exchange currencies at a rate of 15 to 1. The overvalued exchange rate acts as a de-facto tax on exports (raising their prices) and a subsidy to imports (lowering theirs). Barter then provides a way to undo these effects at least on the goods bartered.

The two parties to the transaction can bypass the exchange rate, ignore nominal prices, and trade in terms of real prices. At the very least, the implicit prices of the goods will be their world prices since each trader's opportunity cost is what he could sell his goods for on the open market, and his buying price ceiling the international price of the other party's goods.

Finally, prices may be out of line with real scarcity values when they are set by a cartel. Barter then provides cartel members with a way seemingly to trade at official prices, while actually selling at a discount. In this way a country can increase sales volume and still get a good price without starting a price war that would result in the cartel's collapse.

For example, in 1975 sharply falling demand for its oil threatened Algeria's economic development plans and it utilized barter as a way to secretly undercut the OPEC prices. Algeria arranged a number of exchanges of oil for trucks and machinery. Massey-Ferguson, Mitsubishi, and others received the oil, at the OPEC price of $11.75/barrel, in payment for their goods. Not being in the oil business, the companies engaged the services of traders who sold the oil on world markets. In order to encourage purchases of their oil, the companies offered substantial discounts off the OPEC price. They did not lose, however, since they had marked up the prices of their goods to cover the barter costs including the traders' fees and the discounts. When it became clear that the bartered oil was being offered in the world markets at $10.75/barrel, the Algerian government denied that it had intended to undercut the official price and broke off negotiations for further barters that were underway with Renault. The Algerians reportedly expected discounts of a few percentage points, but what actually happned both surprised and embarrassed them.[20]

More recently, Iran has arranged a number of counter-purchase transactions with Western firms for the same reasons as the Algerians did. However, they are being more careful in ensuring that the discounts are small enough so as not to incur the displeasure of the other OPEC members.[21]

B. Liquidity and Credit

The barter arrangements that have grown up since World War II, particularly the clearing agreements, serve another function, that of providing liquidity. Even when countries want to engage in monetary trade they may be unable to do so because of a shortage of international reserves. The reserves are assets which national governments are ready to accept from other national governments in settlement of debts. Because of this acceptability in transactions between countries, governments accumulate these assets and use them as "reserves" against periods when aggregate payments to foreigners exceed aggregate receipts from them.[22] The assets typically used are convertible currencies, gold, and International Monetary Fund (IMF) Special Drawing Rights (SDRs). Not only do countries have insufficient amounts of these assets for their trade requirements, they also often have exchange control systems which limit the usefulness of their own currencies.

Exchange control regulations usually require buyers and sellers of foreign exchange to deal only with the government or authorized banks, and only at the official rate. Exporters must invoice their buyers in hard currency and must surrender their earnings in return for domestic currency. Importers can only buy the foreign exchange necessary to pay for government authorized purchases. The purpose of these regulations is to reduce the size of the domestic black market and the external free market in order to prevent firms and individuals from using these to bypass the government controls. The currencies subject to such controls are termed inconvertible. One can distinguish two types of inconvertibility, currency and commodity.[23] In the first case, recipients of such currencies cannot freely transfer them into other currencies. This makes them relatively unacceptable as international reserves and other countries will be unwilling to accumulate them. In the second case, the issuing countries are unwilling to let outsiders buy what they will in the domestic economy. Section IV will discuss these points more fully. At this point it is sufficient to note

that countries with inconvertible currencies and insufficient international reserves must devise other ways to pay for import surpluses since in essence they either cannot or will not use their own currencies.

As we discussed in Section II, barter and clearing agreements are logical solutions to the problem of insufficient liquidity. In the case of barter, goods pay for goods directly. Clearing agreements create bank deposits that are money within the framework of the agreement.

Clearing agreements also facilitate the granting of credit. Countries can extend credit to each other because the terms of the agreement reduce risk. The agreement in effect gives the creditor a lien on goods produced by the debtor. This is similar to a mortgage though of course there is no over-arching body to enforce the contract. The fact that the maximum amount and duration of the credit are set is a more important limit on the risk.

C. Terms of Trade

Countries, like individuals, tend to want to receive a higher price for what they sell, and pay a lower one for what they buy. Barter can assist them in achieving both these aims.

i) Selling

As mentioned in III A above, an overvalued exchange rate acts as a tax on exports, and a subsidy to imports. When a country has an overvalued exchange rate, clearly it is in its interest to insist on the use of cash for purchases of those of its exports for which the own-price elasticity of demand is less than the own-price elasticity of supply. In such cases, the "tax" burden falls more heavily on the buyer than the supplier. The country can then use the revenue from the *de facto* tax on exports to reduce the price to itself of the goods it must buy abroad. Countries with relatively weak administrative structures may favor over-valued exchange rates even when the bulk of the burden falls on domestic producers. The "export tax" is possibly one of the few taxes the govern-

ment can collect.

The foreign exchange generated at the official exchange rate is often insufficient to pay for all the imports a country desires. The overvaluation causes many of the country's potential exports to be too expensive. The problem then is to remove the effect of the exchange rate on those products where it is, on balance, counterproductive. Three possible solutions are: dual or even multiple exchange rates; special export prices; and barter.

Dual exchange systems use one official rate for some transactions, and another official or free rate for others. Some countries even have multiple rates. The applicable rate then depends on the type of transaction, the goods, or the foreign currencies involved. The fixed exchange rates and the attendant system of controls on transactions separate the domestic economy from the world economy. When the government's purpose is to insulate the domestic economy from external disturbances, the rate on real goods transactions is generally the official one, and the rate on financial transactions the free one.[24] When the purpose is to stop capital outflows these relationships are reversed.

Dual exchange rates are hard to police. There may be "leakages" with capital flows disguising themselves as real goods transactions.[25] Buy using an official rate augmented by barter, a government establishes a _de facto_ dual exchange system.[26] All money transfers, and some trade, take place at the official rate. Barter then approximates a free rate for real transactions, and particularly for those hampered by the official rate.

To use a system of special export prices the selling country simply sets what it feels are optimal prices given the world market situation and makes them available to all foreign buyers. This is a form of price discrimination in that foreign buyers face different prices than do domestic ones. An export price system requires no better market intelligence than does barter, and no expenditure of effort on negotiations. Generally one would expect that selling countries would favor special export prices when they face many small buyers.

Barter permits a finer discrimination since the seller can negotiate a different implicit price with each buyer. When there are many small buyers negotiation costs outweigh the benefits of this finer discrimination and export prices are preferable.

It is not surprising therefore to find countries that use barter in their trade prefering to deal on a country-to-country basis, or with large foreign firms. This tendency is reinforced in the case of the EBCs by their unwillingness to let foreigners buy at will even at export prices because of the disruption this might cause to economic plans.

ii) Buying

First, many of the goods LDCs and EBCs wish to import from the West are differentiated products produced by only a few companies and whose prices include some element of oligopoly rent.Second, overvalued exchange rates subsidize imports. This means that their social cost is greater than the nominal cost facing buyers, be they private companies or state enterprises. Third, state-owned firms that are not expected to make profits or that have monopoly power in the domestic economy will have very inelastic demand schedules for imports. They can pass costs on to consumers either directly in product prices or indirectly through the taxes the government levies to make up the losses the firms suffer.

One can expect the governments of the EBCs and LDCs therefore to favor conducting import purchasing via state trading organizations. In this way the government can increase the degree to which purchase decisions reflect social rather than private or nominal cost. More importantly, the organizations can present suppliers with a more elastic demand schedule than the later would face if they were permitted to approach potential customers directly. Since the seller has little access to independent information, he has no way of knowing if the buyers' demand schedule is as elastic as the state trading organization represents it to be.

So far this is simply an argument for centralizing bargaining, with no mention of barter. What barter may permit the buyer to do is to take greater advantage of his ability to deceive the seller. As we noticed before in the case of cartel prices (Section IIIA), barter permits the parties to publish the nominal prices at which they are trading, while concealing the real prices. When the seller takes payment in a number of goods which are then sold in different countries for various currencies, it is very difficult for any outsider to the transaction to reconstruct the real price. The seller via barter can therefore afford to give the buyer a discount because he knows it will go no further, that is, other potential customers will not find out about it and bargain for similar preferential prices.

In both buying and selling then, barter, while not creating monopoly or bargaining power for the country, nevertheless may enable it to draw a greater benefit from the power it does possess.

D. Long-term Contracts and Trading Relationships

Some barter agreements represent what are in essence exchanges of long-term futures or options contracts. This is certainly one aspect of most clearing agreements. The inter-country oil barters after 1973 referred to earlier are another example. The recent Japanese-Chinese trade agreement may be a third.

In effect what the parties to the barters are doing is exchanging long-term purchase contracts, and options (the right, without obligation, to buy or sell specified goods at specified prices over the period of the agreement). The futures contracts' ability to reduce uncertainty is especially important to centrally planned economies because of their plans' sensitivity to unexpected developments.

It is probably easier to arrange this exchange of contracts between countries than between a country and a firm. *Ex ante* both parties to an agreement expect to benefit. *Ex post*, one or the other will get the better of the deal

depending on the direction in which prices move. If the contract results in an actual loss to one side or the other, for any given size of the loss, companies are more likely to go bankrupt than are countries. Rightly or wrongly, this does seem to be a concern for many firms.[27] Moreover, countries are perhaps better able than companies to diversify the risks of such contracts. While a company may buy only one good from a country, two countries may be able to exchange a number of goods. If the prices of these goods are not perfectly correlated, each country can expect that <u>ex post</u> what it loses on some contracts it will make up on others.

Finally a long-term barter creates a relationship between the trading partners. Some countries may count among the benefits of barter any dependence they create on their partner's side. However, this is probably of waning importance since the increasing number of alternatives in terms of trading partners and arrangements must work to reduce the price any one nation can demand for accomodating the preferences of another. The more amorphous benefits of a relationship remain though.

In a world of rapid changes and great uncertainty, one cannot write contracts to cover all eventualities. The essence of a commercial relationship however is a mutual implicit contract that whatever transpires, the parties will extend 'most favored' status to each other. There is a mutual understanding that no third party will receive more favorable terms in contracts than those extended to the party with whom one has the relationship. Frequently one has the impression that the implicit contract is even more specific. The mutual understanding is that should there be discontinuous changes in the availability of some good, i.e., some sudden gluts or famines, the party in the strong position will continue to buy from or sell to its partner, respectively, as nearly 'normal' quantities at 'fair' prices as possible. Put another way, during supply or demand crises parties to a relationship are expected to clear the market between them on a quan-

tity rather than a price basis.

As in the discussion on terms of trade, one can achieve the same ends in ways that do not involve barter. However, once again, given that a country is engaging in barter trade, the establishment of long-term contracts and the creation of trading relationships represent additional benefits.

IV. Barter's Future in International Trade

This section will explore a little more fully the origins of the proximate causes discussed above. In particular it will concern itself with the political-economic causes of the price distortions and the lack of liquidity. These are important because they indicate a different future for barter in the trade relations of the developed Western countries, the East Bloc (including the People's Republic of China (PRC) and the other Asian Communist countries), and the LDCs.

This paper has taken as a basic premise that, in general, monetary trade is more efficient than barter. It is more flexible and transactions costs are lower. This it permits a greater volume of trade. This view in turn leads to the expectation that barter, when it occurs, will be a transitory phenomenon. It may re-occur since the events that cause monetary trade to break down (inflations, wars, depressions, etc.) are themselves recurrent. Nevertheless one would expect barter to represent a temporary regression pending the re-establishment of monetary trade.

Much current international barter though has persisted for some time and had, in fact, become quite institutionalized. This is particularly true of the EBCs' trade with the West and the LDCs, and to a lesser degree the LDCs' trade among themselves and with the West. The view of barter as a temporary phenomenon really applies primarily to the Western countries -- those with market economies and private ownership of productive enterprises.

In these countries trade occurs between firms (and individuals) that usually have a wide legal latitude to set their prices where they will, and to

trade with whomsoever they choose. As a result one can expect that prices will adjust rapidly to reflect real scarcity values. The openness of the countries' economies means that foreigners will accept their currencies in exchange for goods. In fact, firms can transact their business with each other in any money they choose to, even if it is neither trading partner's domestic currency. The international monetary and financial system is well developed. Therefore there is little of the systematic price distortion or lack of liquidity that gives rise to barter.

A. Barter Trade and the East Bloc Countries

While barter's future as a form of trade between Western Countries is a limited and transitory one, this is not so for the EBCs -- those with centrally planned economies and state ownership of productive enterprises. One can see the reasons most clearly in the case of the Soviet Union, the EBC with probably the most comprehensive central planning and the least need for trade.

If one examines the Soviet Union's foreign trade system one can see why barter persists. The Soviet Union does not trade to maximize the monetary or commercial gains from trade or the volume of trade. The Ministry of Foreign Trade acts as a procurement office for the State. It purchases those imports of capital goods the planners feel are necessary to fulfill the plans, and those inputs, such as agricultural commodities, that are in temporary shortage. Traditional exports and goods in temporary surplus are exported in amounts necessary to pay for imports.[28] The goal of the State is the "maximization of national production capacity and of national output," while strictly limiting external influences on the domestic economy.[29] Hence imports are heavily biased towards capital goods and away from consumer goods. Foreign trade is a state monopoly with the FTOs acting as a barrier between Western sellers or buyers and Soviet productive enterprises. Most importantly, the USSR has decided to keep the ruble inconvertible. Soviet planners find it inconceivable that persons not

under their control should be allowed to hold rubles, i.e., to possess general claims on the domestic economy.

There are some minor exceptions to this inconvertability. Tourists may buy some rubles when they enter the USSR but they must exchange any unspent amounts when they leave. There is also a small free market in Finland. However, the Soviet Union permits neither the export of its currency nor foreign ownership of ruble bank balances. Even if a foreign firm somehow came legally to hold rubles it could only apply these against those goods the plan decreed were available for trade.

Domestic deviations from world prices are fairly unimportant in explaining the occurrence of barter. Even if world prices were, by chance, to pertain, the Soviet Union would still maintain an inconvertible currency and need to use barter arrangements for additional liquidity and credit.

Barter has two operational aspects that make it attractive to planners. First, it is administratively convenient. Each transaction balances exports and imports. This simplifies the task of planning balanced trade. Second, it extends the domestic planning system to the foreign trade sector. It enables planners who are concerned ultimately with physical quantities to conduct their trade on this basis rather than in value terms. However, these two advantages are trivial alongside the central consideration of command over the economy. The Soviet Union willingly gives up some of the efficiency of monetary trade in order to achieve the political-economic goal of maximum control over the economy.

There is no reason to expect that this will change in the foreseeable future. The Soviet Union is not trying to maximize the gains from trade but rather to minimize necessary trade. In this context, the costs of inefficiency are relatively minor. They are probably minor in absolute terms as well.

The two diagrams below illustrate the effect of proportional transactions costs and taxes on imports and exports assuming the worst possible cases from

the Soviet Union's point of view -- that is when it is a price taker for its exports and imports. In these cases it bears all the costs of the inefficiencies.

In Figures 4 and 5, D' and S' represent the after taxes and costs demand and supply curves for its imports and exports respectively. The two triangles ABC represent the deadweight loss of consumers' and supplier's surplus which the Soviet Union bears entirely as buyer and seller. The deadweight loss is analogous to losses to friction. Eliminating them would represent a gain from nature -- a reduction in waste. The shaded areas represent transfers, i.e., one party's loss is the other's gain.

One can attribute a large portion of this area to the tax effects of an over-valued exchange rate. The transfer here is between the Soviet Union as buyer or producer and the Soviet Union as taxing authority, and hence is irrelevant. Another portion represents the transfer of surplus to middlemen (barter firms and FTOs) for negotiation, administration, and marketing. Many of these services are as necessary under monetary trade as under barter. The cost of barter therefore reduces to the deadweight loss and the extra costs of negotiation and administration attributable to the choice of barter over monetary trade.

There is no reason to believe that the cost of barter is so burdensome that the USSR will give up a large measure of its control over its economy in order to avoid it. The deadweight loss is an unrealized potential, something which is a less pressing convern than actual expenditures. These though seem quite minor, at least as extra costs. In addition, as the discussion in Section IIIC & D pointed out, barter can have certain economic benefits, thus the net economic position may actually favor barter. Even if it does not, the Soviet Union is willing and able to make other, greater sacrifices for political reasons. Its foreign trade system is simply another case of this.

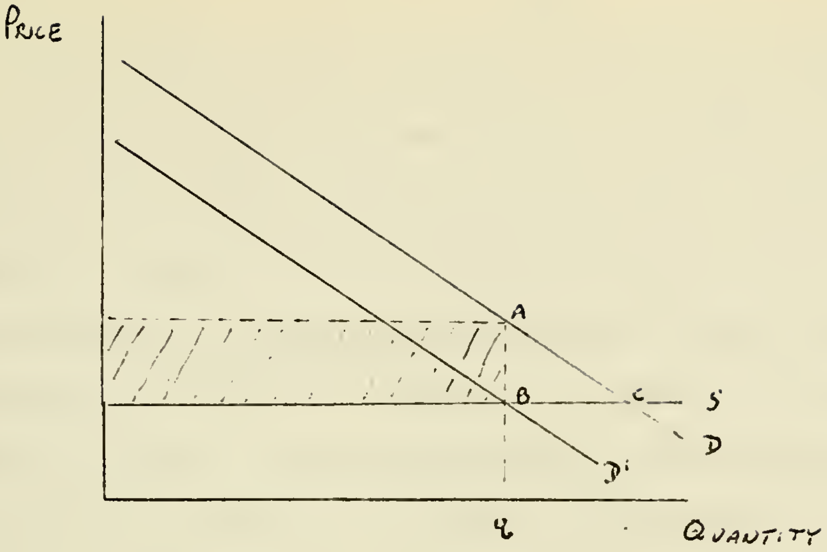


FIGURE 4. SUPPLY (S) OF AND DEMAND (D) FOR IMPORTS

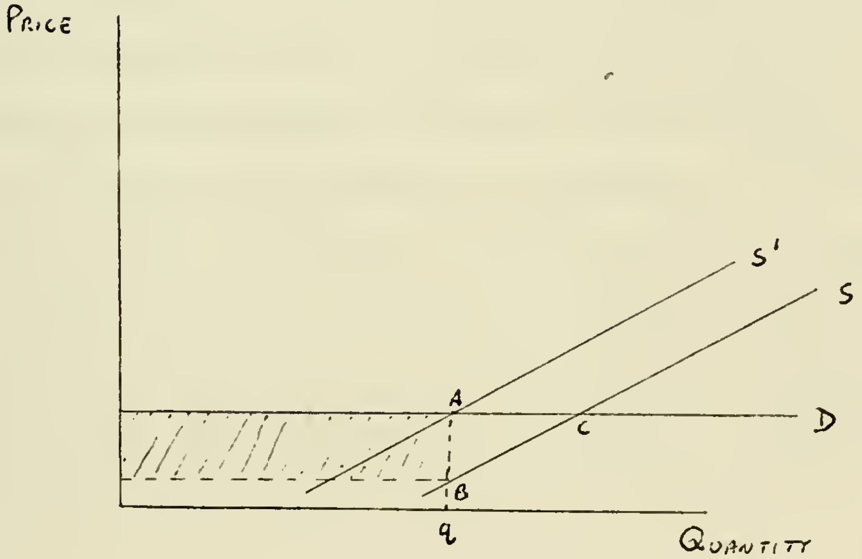


FIGURE 5. DEMAND (D) FOR AND SUPPLY (S) OF EXPORTS

The situation vis-a-vis the other EBCs is more complex. With the exception of the PRC, all are far smaller than the USSR and have a proportionately greater need for trade, thus the costs of barter weigh more heavily on their economies. Several seem to be reducing detailed planning. While maintaining state ownership they are decentralizing some decision making to the productive enterprises. This could, in the long-run, result in their opening their economies more as the plans become indicative rather than prescriptive and thus less readily disruptable. The probable direction for the change in structure of their trade would then be away from barter and towards a system of import and export licenses. The process is a very slow one, especially since it must take place under the wary eye of the USSR.[30]

The amount of barter trade between the EB on the one hand and the West and the LDCs on the other will therefore not diminish in the near future. Barter may even increase its relative share of East-West trade. If the EB's need for imports grows faster than cash exports, it will have to increase the amount it borrows from the West, and/or the amount of barter. For a variety of reasons the EB's debt capacity is limited and may not grow at a rate sufficient to fund the trade deficit. Thus, the Soviet Minister for Foreign Trade has recently emphasized that his country must, for financial reasons, turn increasingly to barter for its purchases in the West.[31]

B. Barter and the Less Developed Countries

While the economies of Singapore and Hong Kong are even more open than that of the US, and Burma's even less so than the USSR's, the LDCs tend to fall somewhere between the West and the EB on this dimension. Many have inconvertible currencies. Generally, though, the inconvertibility accompanies foreign exchange controls rather than vice-versa. These cases are more one of currency than commodity inconvertibility. While the governments control the exchange

of the local currency for foreign ones, foreign traders may purchase whatever domestic goods they please. Most of the LDCs have large private sectors and essentially market economies. Their concern is more with protecting the exchange rate than restricting access to the economy.

Historically, a prime reason for exchange controls has been the attempt on the part of governments to prevent the import of financial assets, or as it is more commonly known, capital flight. The government may wish to retain capital within the country so that it will be available for investment. It may have ideological objections to its citizens owning assets abroad. It may see capital outflows as motivated by, in its view, incorrect expectations (panics or excessive pessimism) of the value of money and wish to prevent these from affecting the real economy by reducing domestic demand.

The excessive import of goods relative to exports can also cause governments to turn to exchange controls. Many LDCs' exports are commodities subject to wide price fluctuations.[32] However, the countries have a stable demand for imports. If a country is unable to borrow internationally as much as it would need to keep imports steady it may use exchange controls to counteract balance of payments disequilibria rather than letting its exchange rate flucuate. The controls limit the drain on the country's foreign exchange reserves by rationing imports in accordance with a schedule of priorities. In this way the country diverts foreign exchange earnings from low priority uses such as imports of luxuries and non-essential consumer goods, and reserves them for capital goods and debt service. The country can then use its limited borrowing capacity to augment its foreign exchange reserves.

When a government faces a situation where imports, of whatever sort, exceed exports, it can respond by devaluing its currency or by defending the exchange rate. If it simply devalues this will raise the amount of domestic production it will have to sell internationally to pay for its imports, which may not even be the ones the government feels are socially desirable,

e.g., too many Mercedes Benz 450SLs, and too little fertilizer. If it maintains the exchange rate by funding the excess imports out of reserves but without imposing controls, it will find itself subsidizing the rich as well as the poor. Generally the reserves will run out long before the import demand does, and the country will still have to devalue. Maintaining the overvalued exchange rate by a recourse to exchange controls taxes the producers and buyers of exports and limits the subsidy to consumers of imports to those groups favored by the government. This strategy reduces the quantities of both imports and exports and creates an opportunity for barter.

Barter trade between the Western developed countries and the LDCs will wax and wane with the world business cycle. When the world economy is booming, demand for LDC exports rises. This reduces their trade deficits. It may even result in a trade surplus and reverse the direction of capital flows. The reduction in the overvaluation of the currencies removes the opportunity for barter. As already discussed, the reverse occurs when the world economy is in recession and the demand for LDCs' exports drops. While some countries will be out of step with the world economy, by and large the cyclicality in barter opportunities will hold for quite some time.

Whether the country does or does not engage in barter will nevertheless depend on a number of political considerations. If the only goods it can offer are its traditional exports (which are currently being sold for hard currency) entering into a barter will mean reducing the quantity of cash imports. One can expect the consumers of these goods to resist the reduction in their subsidy. Export producers may benefit and if so will favor the transaction. However, the very fact that they are taxed implies that they are politically weaker than the group subsidized.

Clearly, governments will most welcome barters that propose to export goods currently not exported. These pose no political problem since they do not reduce the country's foreign exchange earnings. Such goods are unfortun-

ately not always available in sufficient quantity to warrant the organization of a barter. Overall one can expect far less barter to occur than the presence of overvalued exchange rates alone would indicate is possible.

In the long run, one can expect the role of barter in the LDCs' trade to decline in importance for two reasons. First, the LDCs' development and diversification of their economies will act to reduce their dependence on raw material exports. Second, the further development of world capital markets will give countries financial means of smoothing their foreign exchange earnings.

In summation, barter as a mode of international trade would seem to have three different futures. Among Western countries it will accompany major crises and be quite transitory. In the trade of the LDCs it will appear cyclically, but around a declining trend line. Only in the case of the will it remain a permanent part of their trade relations and grow as their trade grows.

V. Summary

This paper had two purposes. First, to acquaint students of international business with the characteristics of barter trade. Second, to show that a country's use of barter did not represent a mysterious or irrational choice on its part but rather was analyzable and understandable within the framework of Western political and economic theory.

To these ends, Section I reviewed barter's recent history and argued that although it was the oldest form of trade, it was inefficient in comparison to monetary trade. The key point is that monetary trade avoids the "double coincidence" (the parties having complementary goods and needs at the same time) which is necessary for barter to take place.

Section II discussed the various modes of barter met with in international trade today. It described typical provisions and problems Western firms might

expect to meet when negotiating and administering such transactions. The modes considered included: pure, partial, and local currency barter, and compensation trade; clearning agreements and their derivatives, switch and aller/retour; and product buy-back, co-production, and barter for services.

The third Section began by focusing on the two proximate causes for barter, price distortions and need for liquidity, and the two benefits, improvement of the terms of trade and the creation of long-term contracts and trading relationships. Overvalued exchange rates were credited with being the most common source of distortions, with barter then providing a means of nullifying their effects. The paper argued that barter enabled some trade to take place when at least one of the trading countries had insufficient international reserves and could not or would not use its own currency to pay for its purchases. Clearing agreements were described as carrying this a step further by creating bank deposits that were a form of money within the context of the arrangement, and by providing a framework for countries to grant each other limited trade credit.

Next, barter was credited with providing countries with a way to charge different prices to different buyers and thus to benefit from any monopoly power they possess. Similarly, when foreigners had some monopoly power, the countries could disguise their true demand schedules and take advantage of their suppliers' desire to discriminate among buyers. The key aspect of barter that makes all this possible is that barter terms by their very nature obscure the actual prices paid. Finally, the paper argued that, via barter, countries could exchange long-term contracts and establish trading relationships and thus reduce risk in their foreign trade.

Section IV explored the causes of barter a little more fully, focusing on its political-economy, particularly in the Soviet Union, and to a lesser degree in the LDCs. This formed the basis for the contention that barter had a different future in the trade relations of the developed Western countries,

the EBCs, and the LDCs.

The Western countries' market economies make it probable that while price distortions and liquidity shortages may occur in the wake of crises, there will be a tendency towards a rapid re-establishment of monetary trade. The situation of the EBCs is dramatically different. There, a concern with comprehensive planning has led the countries to impose a strict inconvertibility on their currencies in order to prevent outsiders from exercising any command over the domestic economies. Barter and clearing agreements were then a solution to the liquidity and credit shortages that accompanied this inconvertibility. The paper further argued that this situation was not likely to change in the near future since the economic costs of inefficiency were minor compared with the importance of the political goals. Therefore, one could expect barter arrangements to continue as part of the trade relations of the EBCs and even to grow in importance. The LDCs were described as falling between the two extremes represented by the West and the EBCs. Here though the problem was ascribed to overvalued exchange rates which had the effect of taxing exports and subsidizing imports and thus distorting prices. The discussion went on to suggest that barter opportunities would arise and disappear as world demand for the LDCs' exports fell and rose, but around a declining trendline as the development of the countries' economies and the world financial markets worked to smooth export earnings.

While barter may seem, on the surface, strange and complex, the thrust of this paper is that there is no reason for firms to fear entering into such transactions. The mechanics are understandable and expert assistance is available from barter specialists. More importantly, the underlying causes are themselves identifiable and understandable. The author therefore hopes that readers of this paper will have learnt to be alert to barter opportunities and not to reject them out of hand.

Footnotes

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