CURRENCY FLUCTUATIONS AND THEIR IMPACT ON THE ETHIOPIAN BALANCE OF TRADE

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1. INTRODUCTION

During the past four years the financial world has witnessed substantial changes in the par value of most countries' currencies. The realignment of currencies began in May of 1971 when Germany and the Netherlands decided to allow their currencies to float as a result of a large influx of American dollars. In August of that same year the United States announced that as part of its government's attempt to control inflation and improve its balance of payments position, it would no longer exchange gold for American dollars. At the Smithsonian Conference held in Washington D.C. in December 1971 the major economic powers agreed to a new set of par values for their currencies. As part of that agreement the United States agreed to devalue the dollar by 7.89 percent in exchange for a currency appreciation by a number of European nations and Japan. The agreement was hailed as a significant achievement by many who felt that the new currency ratios would provide the basis for a long lasting system of stable exchange rates. However, a number of economists questioned whether the U.S. devaluation was large enough to bring about the desired equilibrium in the U.S. balance of *payments*. True to their expectation the U.S. dollar continued under heavy pressure and in March of 1973 the United States government announced that the dollar would be devalued by an additional 10 per cent.

Since 1971 the par values of most of the currencies of the world have changed. A few countries including; West Germany, Netherlands, Switzerland, Austria, and Belgium have appreciated or revalued their currencies relative to Special Drawing Rights, (SDRs) or gold while most of the rest have depreciated or devalued their currencies relative to SDRs or Gold, although in most cases the depreciation or devaluation has not been as large as that of the U.S. dollar. A few countries, most notably Canada and the United Kingdom have allowed their currencies to float. In the case of Canada, the Canadian dollar has more or less maintained the same par value relative to the US dollar. The British pound on the other hand has depreciated slightly relative to the US dollar. Finally a few countries including Ethiopia have maintained their par value relative to gold and SDRs. The effect of this as far as Ethiomia is concerned is that the Ethiopian dollar has appreciated considerably relative to the currencies of most of her major trading partners. The reason for this is that with the exception of West Germany and the Netherlands most countries with which Ethiopia trades have depreciated or devalued their currencies.

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It is the purpose of this paper to analyze the effects of this relative appreciation of the Ethiopian dollar on the balance of trade and on the Ethiopian economy.

According to classical international trade theory a currency devaluation or depreciation will improve a country's trade balance while a revaluation or appreciation causes the trade balance to deteriorate. In the case of a devaluation the effect will be to decrease the prices of a country's exports in terms of the foreign currency, causing other countries to import a larger quantity from the country whose currency has been depreciated. On the import side the price of imports rises in terms of the domestic currency so that buyers will tend to decrease the quantity imported. Assuming that the Marshall-Lerner condition is met, the effect will be to improve the balance of trade.[1] Similarly a currency appreciation will decrease the price of imports in terms of the appreciating country's currency thus increasing imports and the price of its exports should increase in terms of the foreign currency and exports should decrease.

2. THE ETHIOPIAN SITUATION

In 1971 Ethiopia had a deficit in its trade balance of $154.6 million and an overall balance of payments deficit of $21.8 million.[2] Furthermore, by December of 1971 net foreign exchange and gold holdings had dropped to just over $100 million, which was equal to less than three months supply of imports. Under these conditions the normal policy would have been a currency devaluation. Instead the Ethiopian government decided to maintain the par value of the Ethiopian dollar relative to gold and SDRs. However, as mentioned earlier, the fact that most of Ethiopia's major trading partners subsequently devalued or depreciated their currencies meant that the Ethiopian dollar was appreciated relative to most other currencies with the two most notable exceptions being West Germany and the Netherlands.

Given these circumstances it would have been expected that Ethiopia's trade balance would have worsened considerably. In fact just the opposite occurred; the trade balance deficit decreased from $154.6 million in 1971 to a deficit of only $50.3 million in 1972 and in 1973 the trade balance showed a surplus of $55.5 million.

A number of reasons can be given for this phenomenon, but undoubtedly the most important reason is the fact that the prices of most of Ethiopia's major export commodities increased sharply in response to a substantial increase in worldwide demand accompanied by a simultaneous decrease in worldwide supplies. These sharp price increases are illustrated in Table 1. As indicated in Table 1 there were initially sharp increases in the prices of hides and skins as well as oilseeds and oilseed cakes. The prices of these commodities appear to have peaked in the third quarter of 1973 and by second quarter 1974 had dropped considerably from their earlier highs. In the case of hides and

skins, supplies have increased substantially so that a further drop in prices is likely. Oilseeds production prospects are reported as being very good so that further price decreases are expected.[3]

In the case of coffee, Ethiopia's most important export commodity, prices remained relatively stable until 1974, when because of decreased production, and controls on supplies by some exporting countries, prices rose sharply. Indications are that production during the 1974-75 crop year will increase substantially so that coffee prices are expected to drop during next year.[4]

The prices of pulses started to rise in the first quarter 1972 and continued to increase, except for a temporary drop in late 1972 and early 1973, until the second quarter of 1974. Even with a more than 10 percent drop in prices during the second quarter of 1974, prices were still more than twice as high as during the first quarter of 1972. Furthermore, because of worldwide shortages, the volume of Ethiopia's export of pulses more than doubled during the past two years so that export receipts from pulses have increased by three and one half times the 1971 level to over $77 million in 1973.

The situation with regard to imports has also differed from normal expectations. It was expected that the relative appreciation of the Ethiopian dollar would result in a substatial increase in imports. Actually, the opposite has occurred. In terms of value of imports, total imports declined from $469.5 million in 1971 to $435.6 million in 1972 and then rose slightly to $448.2 million in 1973 which was still over $21 million below the 1971 figure.

One possible explanation for the decrease in the value of imports might be that the Ethiopian demand for imports is extremely inelastic so that with the decrease in import prices due to the relative currency appreciation, quantities imported did not increase enough to offset the effect of lower prices. Actually, due to worldwide inflation and substantial tariff increases in mid 1973, price of import commodities rose slightly in both 1972 and 1973. The Addis Ababa Wholesale Price Index of Imported Commodities with 1968 = 100 stood at 106.9 in 1971 and increased to 110.1 in 1972 and to 115.8 in 1973. These price increases are substantially below world wide inflation rates during the period so that the relative appreciation undoubtedly resulted in lower import prices than would have prevailed otherwise. These price increases for imports at the wholesale level accompanied by a reduction in the value of imports would indicate that actual quantities imported declined. According to the quantum Index of Imports this did in fact happen, with the index declining from 94.9 in 1971 to 88.5 in 1973.

This unexpected decline in imports can in part be explained by examining the various import commodity groups. It is readily apparent that the rapid growth of certain industries has led to considerable import substitution. This is evidenced by the fact that where Ethiopian production has been increasing rapidly imports have been declining or have remained virtually stable. Examp-

les of categories where considerable import substitution appears to have taken place include, processed food products, raw cotton, soaps, rubber products, textiles and clothing. However, import substitution in underdeveloped countries does not always lead to a saving of foreign exchange. In some cases the cost of the materials used in domestic manufacturing may be greater than the imported cost of the finished product. However, for Ethiopia available evidence indicates that for the industries mentioned above, this is not likely to be the case except for a few items within the textile industry.[5] On the other hand, imports of certain other products have increased substantially as would be expected during the past two years; these commodities include; chemicals, medical and pharmaceutical products and road motor vehicles. However, the decrease in import of metal and metal manufactures, machinery and electrical materials is more difficult to explain, except that it may be related to the slowdown in the growth rate in industrial production.

3. PRICE EFFECTS

It appears, therefore, that the detrimental effects that would have been expected from Ethiopia's relative appreciation have been largely offset by dramatic changes in worldwide demand and supply conditions. Nevertheless, the price effects of the relative appreciation have been substantial. In the case of exports, a currency appreciation in the usual case has little effect on domestic export prices, but causes the price in terms of the foreign currency to rise. In the case of Ethiopia's major export commodities the price is determined by international demand and supply conditions or in the case of coffee prior to the expiration of the coffee agreement, by international agreement. In either case since Ethiopia is a relatively small producer internal conditions will have little effect on world prices. Thus the effect of the appreciation was to depress domestic export prices below what they would have been. This can be clearly seen in the case of coffee. From fourth quarter 1971 to first quarter 1974 the New York price of Jimma coffee has increased by 56.8 per cent while the Addis Ababa wholesale Price Index of coffee has risen by only 25.2 percent. To be sure a part of the large increase in The New York price is due to increased transportation charges as a result of higher fuel costs, nevertheless the fact remains that the Addis Ababa New York price differential has widened considerably and certainly at least part of the increase can be attributed to the currency appreciation. This means that although Ethiopia's coffee exports have been earning as much foreign exchange as they would have in the absence of a currency appreciation, the price to the Ethiopian grower has been substantially below what it might have been.

Market conditions for Ethiopia's other major exports such as pulses, hides and skins, oilseeds, and meat are such that Ethiopia's currency appreciation has had little effect on world prices. This means again that the Ethiopian producer is currently receiving less for his export commodities in

TABLE 1 - ADDIS ABABA WHOLESALE PRICE INDEXES OF EXPORT COMMODITIES

	1971	1972				1973				1974	
	Fourth Quarter	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	First Quarter	Second Quarter
Coffee	114.2	103.6	107.6	133.4	121.6	120.6	115.4	117.0	120.8	143.0	140.2
Oilseeds	75.3	63.8	67.1	75.2	84.7	104.9	133.8	182.9	154.2	144.8	140.0
Pulses	137.9	116.7	118.1	118.4	93.9	92.0	121.9	187.2	223.1	265.3	236.8
Hides	134.3	156.2	208.6	305.8	381.2	291.5	221.4	258.3	179.9	182.8	134.8
Goatskins	169.9	166.5	178.9	197.3	257.7	260.8	214.1	255.6	230.1	224.6	207.3
Sheepskins	79.9	97.0	118.3	156.6	210.0	208.9	216.2	231.2	182.5	179.3	166.0
Meat	93.0	104.4	104.4	104.4	104.4	104.4	104.5	104.5	104.5	106.9	108..1
Oilseed Cakes	64.9	63.7	76.1	82.9	102.7	127.8	135.5	179.8	148.4	134.6	110.8
General Index	111.4	102.9	108.3	129.8	126.9	127.8	128.0	143.1	141.2	158.2	151.4

1966 = 100

SOURCE: National Bank of Ethiopia, *Quarterly Bulletin*, March 1973 through September 1974

terms of the domestic currency than he would have in the absence of the currency appreciation.

Two recent studies of Ethiopian exports indicate that export supplies are responsive to changes in prices.[6] In the most recent of the studies, Goering and Guebreyohannes derived export elasticities as high as 2.16 for Haricot Beans, 1.39 for Lentils, 1.76 for Chick Peas, 0.76 for Cattle Hides, and 1.90 for Sheep skins. These estimates of supply elasticities would indicate that it is possible to increase the quantity of exports supplied substantially through price increases. Thus, to the extent that increased exports are desirable, and are needed to pay for the equipment and machines needed for economic growth and development, the currency appreciation has had just the opposite effect.

In the case of coffee little is known about the degree to which farmers are likely to respond to price changes. In their earlier study Goering, *et al.* derived a supply price elasticity of 0.14.[7] However, little reliance can be placed on this estimate because during the period for which data were used in the study, exports were to a large extent regulated by the coffee quotas. Furthermore, the authors used a simple one year lagged response in deriving their estimates.

Since coffee trees take from three to five years before they come into full production, it seems likely that the response time will be more than one year and that when a longer time period is considered farmers are likely to be much more responsive to changes in price than would be indicated by elasticity estimate derived by Goering, *et al.*.

It should be pointed out that coffee production for the 1973-74 crop year is down substantially due to the drought and the coffee berry disease. Even with a return to normal growing conditions, production may well drop still more due to disease. In order to combat the coffee berry disease it will be necessary to engage in large scale chemical spraying or the planting of disease resistant trees. In either case costs are likely to be substantial so that increased domestic prices may well be necessary in the future in order to expand or even maintain production.

The price effects on the import side may have been less noticeable because of worldwide inflation. Nevertheless, the currency appreciation had the effect of decreasing import prices below what they would have been. Partially in order to offset this the government in July 1973 announced considerable increases in the tariffs of large number of import categories. These new high tariffs which range as high as 125 percent, are certain to cause severe distortions in relative prices. In addition, as the Ethiopian industrial sector develops, a considerable misallocation of resources is likely to occur as factors of production are channeled into those sectors where tariffs are highest and protection from foreign competition is greatest.

In summary, it would appear that the major effects of the currency appreciation have been partly offset by drastic changes in worldwide demand

and supply conditions. Nevertheless, domestic export prices appear to have been depressed and to the extent that export supplies are price elastic this has led to a decrease in foreign exchange earnings. Imports appear not to have increased as might have been expected. This is probably due to a number of factors, first a considerable amount of import substitution has occurred. Second, the substantial tariff increases that were enacted in 1973 have partially offset the price effects of the appreciation. Finally, the slowdown in the growth of industrial production in Ethiopia undoubtedly has also led to a curtailment of imports.

4. POLICY IMPLICATIONS

Given the fact that the currency appreciation has undoubtedly had some adverse effects on the Ethiopian economy, the question needs to be raised as to whether it would be advisable for the present Ethiopian government to devalue the Ethiopian dollar at this time. In 1973 Ethiopia had a surplus in the trade balance of $55.5 million. Furthermore, there was an overall surplus in the balance of payments of $218.3 million. Thus, at first glance the indications are that the Ethiopian dollar is not overvalued at the present time. However, this surplus in the balance of payments has been achieved with the aid of extremely high tariffs, as mentioned earlier. In addition there are some restrictions on capital movements. The 1973 balance of payments also include $53.8 million in unrequited transfers, including both public and private receipts. This is up by over $13. million from 1972 and more than $31 million more than in 1971. Partly because of the drought these funds will probably continue to come in throughout 1974, but may well begin to taper off after that. It should be pointed out that a substantial part of these funds are used to import machines and equipment and in some cases include aid in kind so that the balance of payments effects of changes in this item would be relatively small.

The indications are that for 1974 export receipts will increase substantially due to a large extent to higher prices for coffee, oilseeds, and pulses, although the quantity of coffee exported will drop considerably. Imports are also expected to increase, but not as much as exports so that the balance of trade as well as the overall balance of payments is expected to show a substantial surplus It would appear therefore that at present the Ethiopian dollar is not overvalued, due mainly to the fact that international prices of many of Ethiopia's major exports have risen substantially in the past few years.

Despite the current relatively large surplus in the balance of payments, this situation is not likely to continue for more than a year or two at the most. In the first place export prices of hides and skins have already declined substantially. A return to normal growing conditions for coffee in Latin America would increase supplies of coffee substantially thus tending to reduce prices. In the case of pulses, most of world's supply comes from North America and because

of adverse growing conditions, supplies have been cut and prices have increased. Here too, better growing conditions next season would lead to increased production and sharply lower world prices.

With regard to imports it can be expected that while recent worldwide inflation rates may decline somewhat next year, the prices of most of Ethiopia's imports will nevertheless show substantial price increases during the next few years. Thus the terms of trade which improved dramatically during the past few years may deteriorate considerably during the next few years.

In addition to increased prices for imports, it also seems quite likely that substantially larger quantities will be imported during the next few years. One of the reasons for this is that with the rapid growth of the monetary sector in Ethiopia the demand for imports will increase substantially. This will be particularly true if the rate of import substitution should fall. A second reason for the expected increase in imports is that the new government will in all likelihood be interested in increasing the rate of economic growth and development in the country. In order to do this it will be necessary to import large quantities of equipment, machines, and supplies. Hopefully, a substantial part of this will be financed in the form of loans and grants from international agencies and national governments. But even so, any large scale development program will require large amounts of domestic expenditures for imports.

The above analysis suggests that within the next year or two the terms of trade will turn sharply against Ethiopia and at the same time the quantities imported are likely to increase substantially. This would mean that the current surplus in the balance of payments would quickly disappear and Ethiopia would have to cut back its development programs or else resort to financing its development programs with its reserves of international currencies which would not last very long. At that point it would appear, that rather than cut back on the development program or even contract the economy, it would be advisable to devalue the Ethiopian currency. The amount of the devaluation that would be desirable cannot be stated precisely at the present, but would to a large extent be determined by the degree to which export prices fall and the extent of price increases of imports.

In addition, if in the absence of devaluation an overvalued currency exists, this means that prices of imports are depressed below their equilibrium rates. This artificially low price of imports would tend to cause the substitution of imported capital equipment for domestic labour and in a labour surplus economy such as Ethiopia, this clearly results in a misallocation of resources.

In the case of a country like Ethiopia a number of arguments have been made against a policy of currency devaluation. The first argument is that devaluation is inflationary. Obviously the prices of imports will increase and to the extent that imports prices make up part of the overall prices index this is true. Furthermore, to the extent that imports are used in the manufacturing

process these price increases will tend to be diffused throughout the entire economy. While a currency depreciation would undoubtedly have some inflationary effect in Ethiopia, the effects would be felt mainly by the higher income groups who tend to buy imported items such as automobiles, appliances foreign made clothes and manufactured food. The large majority of Ethiopians would probably be little affected by price increases of imported articles.

The second argument against a currency devaluation is that it will increase the cost of machinery and equipment imports that are necessary for economic growth and development. However, a large share of the machinery and equipment that is imported is paid for by various forms of economic aid. The decisions concerning the amount of aid contributed by donor agencies are usually made in terms of project needs and availability of funds determined in foreign currencies, so that a devaluation of the domestic currency should have little effect on economic aid receipts.

Finally, it has been stated that a currency devaluation would increase the burden of the external debt in terms of Ethiopian dollars. However, as stated earlier an Ethiopian currency devaluation would have little effect on international commodity prices so that in real terms - i.e. the quantity of exports needed to pay for the interest and loan repayments - the burden of the debt would remain unchanged.

5. CONCLUSION

In conclusion then, it would appear that there have been some detrimental effects resulting from Ethiopia's failure to devalue its currency at the time when most of her major trading partners were depreciating their currencies. However, the worst of the effects that might have resulted did not occur because of dramatic changes in worldwide demand and supply conditions for a number of Ethiopia's major exports which meant sharp price increases for these commoodities. However, if export prices fall as expected and if import prices continue to rise, then it would appear that a currency devaluation would be clearly preferable to a curtailment of development programs or an even more restrictive trade policy. The extent of the depreciation would depend partly on the extent of the price changes and the quantity of foreign ecxhange needed to finance the development program.

FOOTNOTES

1. The Marshall - Lerner condition states that in order for a currency depreciation to improve the balance of trade and a currency appreciation to worsen the balance of trade, the sum of elasticities of the domestic demand for imports and the foreign demand for the country's exports must be greater than one. Empirical studies indicate that this condition is likely to be met in most cases.

2. All statistics cited in this paper are taken from: National Bank of Ethiopia, *Quarterly Bulletin*, various issues from September 1973 to September 1974.
3. National Bank of Ethiopia, *Quarterly Bulletin*, September 1974 p. 39.
4. National Bank of Ethiopia, *Quarterly Bulletin*, September 1974, pp. 43-44.
5. Stephen Guisinger, "Tariffs and Trade Policies for the Ethiopian Manufacturing Sector", Mimeographed Paper, Ministry of Commerce and Industry and Tourism, Aug. 1972.
6. T.J. Goering, Aklilu Afework and Abete Temesgen, "The response of Ethiopian Farmers to Changes in Product Prices," *Ethiopian Observer*, Vol. XV, No. 3, 1972, pp. 151-158. And T.J. Goering and Guebreyohannes Keleta, "Agricultural Export Supply Elasticities Revisited". Unpublished paper, Harvard University Development Advisory Service, Ethiopia Project, March, 1974.
7. Goering *et. al.*