

Depreciation of the Rupee and the Tea Industry

B. Sivaram

Consultant, Programme Support Group

A depreciation or devaluation of the rupee has far-reaching implications on the Sri Lankan tea industry in the following respects:

- ① Auction Prices
- ② Cost of Production
- ③ Producer Returns
- ④ Estate Households
- ⑤ World / Regional Trade

minimal in a tight market situation, whereas an opposite situation will arise in an over-supplied market. In any event, it is too much to expect the export buyer to totally discount the currency factor in his bidding or to allow the domestic seller to retain the full gains accruing from devaluation. In actual practice, a trade off takes place somewhere in between, although one can never be sure where that point will be. This phenomenon is illustrated in Table 1.

Table 1: Likely Post-devaluation Scenario on Auction Prices

Situation	Exchange Rate	Importer's Price Guideline (kg)	Auction Price (kg)
Pre-devaluation	\$1 = Rs 83	\$1.80	Rs 149
Devaluation	\$1 = Rs 90	\$1.80	Rs 162
Post-devaluation	\$1 = Rs 90	around \$1.75	Rs 157

In other words, it is unlikely that the buyer (or importer) can continue to pay Rs 149

per kg (by dropping the bid to \$ 1.66 per kg; that is, old price/new rate or 149/90) after devaluation has taken place. Nor will it be possible for the producer (or seller) to reap the full benefit of the depreciated currency by obtaining a realisation of Rs 162 per kg (that is, \$1.80 per kg). It is not that the post-devaluation price of Rs 157 per kg indicated above will effectively be in force. This depends, as noted earlier, on the dynamics of the world tea market that encompasses various other complex factors.

For the local industry to gain totally from devaluation, one of the following situations must exist:

- ① The auction has to be in, for example, dollars, on the Kenya model (this reference should be taken as a suggestion for changing the existing system; needless to say, it has several other implications)
- ② Exports are on the basis of 'C.I.F contracts' to U.K. (as is the practice with some of the large producers in Assam, where remittance is linked to pound sterling)

Impact on Auction Prices

A well-known feature of global commodity trading that the exporting country is unable to take full advantage of devaluation. This is because when a depreciation of the local currency takes place, the importer is invariably known to drop his pre-determined offer (as conveyed to his local buying agent) in terms of the foreign currency such as dollar, pound etc. By doing so, he endeavours to seek an added benefit from the new situation. The extent to which this discounting takes place depends mainly on the world supply-demand factor, the general rule being that the erosion in terms of the convertible currency will be

Table 2: Foreign Exchange Content in Tea Production - 2000

Cost Component*	Made Tea (Rs/kg)	Estimated Foreign Exchange Content**	Foreign Exchange Cost (Rs/kg)
Cultivation Costs			
• Fertilizer	9.00	65%	5.85
• Agro-chemicals	2.25	80%	1.80
• Estate Transport	1.00	70%	0.70
• Estate Sundries	0.25	10%	0.02
Manufacturing Costs			
• Fuel for Power Generation	2.00	70%	1.40
• Electricity	4.00	35%	1.40
• Oil for Drier	6.50	70%	4.55
• Machinery Upkeep	1.50	50%	0.75
• Packing Material	4.00	60%	2.40
• Factory Sundries	0.25	15%	0.04
• Transport to Colombo	1.25	60%	0.75
• Marketing (handling, brokerage & head office component)	2.50	15%	0.37
Foreign Exchange			Rs 20.03 /kg
COP (estimated)			Rs 112.00 /kg
Foreign Exchange as proportion of COP			17.9%

* Pertaining to representative up-country estates

** Updated from a FAO Technical Report (1980s) on Diversification of Uneconomic Tea Lands

- Exports are in value-added form (where the contract is invariably in a nominated foreign currency; in the situation that largely exists in Sri Lanka, such direct sales are done by the trade, not producers).

Impact on Cost of Production

Table 2 lists the components of tea production, the average cost of the component, the estimated foreign exchange component and the calculated foreign exchange costs.

Table 3: Relative Impact on Prices, Costs and Returns

Impact	2000	2001	2001	2001
Exchange Rate: Average for the year (Rs per \$)	76.92	90.00 Scenario I	92.50 Scenario II	95.00 Scenario III
Depreciation over previous year (%)	9.3	17.0	20.2	23.5
Auction Prices (Rs/kg)	136.00 (\$1.77)			
• Likely Scenario				
- Scenario I: 80% gain (Strong Market)		154.50 (\$1.72)	157.98 (\$1.71)	161.57 (\$1.70)
- Scenario II: 60% gain (Above Average Market)		149.87 (\$1.66)	152.48 (\$1.65)	155.18 (\$1.63)
- Scenario III: 40% gain (Below Average Market)		145.24 (\$1.61)	146.99 (\$1.59)	148.78 (\$1.57)
- Scenario IV: 20% gain (Weak Market)		140.62 (\$1.56)	141.49 (\$1.53)	142.39 (\$1.50)
Production Costs Estimated (Rs/kg)	112.00 (\$1.46)	115.40 (\$1.28)	116.04 (\$1.25)	118.70 (\$1.23)
Producer Margin (Rs/kg)	24.00 (\$0.31)			
• Likely Scenario				
- Scenario I: 80% price gain		39.10 (\$0.44)	41.94 (\$0.46)	44.87 (\$0.47)
- Scenario II: 60% price gain		34.47 (\$0.38)	36.44 (\$0.40)	38.48 (\$0.40)
- Scenario III: 40% price gain		29.84 (\$0.33)	30.95 (\$0.34)	32.08 (\$0.34)
- Scenario IV: 20% price gain		25.22 (\$0.28)	25.45 (\$0.28)	25.69 (\$0.27)

It is necessary to stress that what took place on 23rd January 2001 was not a devaluation or depreciation of the rupee — it was a float. The implication is that since the value of the dollar is determined by the market, it can change on a day to day basis. That brings in much volatility during the lag between the date of sale and settlement. The uncertainty could be more in respect of forward contracts where the rupee equivalent is hardly known at the time the sale takes place. Depending on the timing of the contract, the producers could stand to lose or gain. This could cause difficulties in financial planning.

The following inferences may be drawn from the above tabulation and related features:

Table 4:

Estimated Average Per Capita Expenditure in Estates — per month during 2000*

Item	Rs	%
Food	1,350	67
Non-durables	600	30
Consumer Durables	60	3
Total	2,010	100

*tentative estimate, updated from a Central Bank survey for 1996/97

- An estimated 18 per cent of production costs is accounted for by the foreign exchange component, of which the cost of fertilizer imports at 29 per cent (Rs 5.85 per kg) is the highest, followed by fuel for drier at 23 per cent (Rs 4.55 per kg) and imported tea chest material at 12 per cent (Rs 2.40 per kg),

- The share of foreign exchange costs as between cultivation and manufacture is in the ratio of 42:58, which points to a somewhat higher burden being placed on the latter segment of the industry (notably, private factory owners) as a consequence of the depreciation of the rupee,

- The currency-induced rise in input costs suggests the possibility of a revised approach — within marginal limits, of course — as between materials per se (e.g. recourse to organic manure in part substitution of imported chemical fertilizers) and between materials and labour (e.g. additional round of manual weeding in lieu of chemical weeding),

- In terms of erosion of competitive edge on the cost factor, depreciation of the rupee puts the Sri Lankan industry at a considerable disability vis-à-vis, for instance, India where the import content in the COP of tea is as low as about 2 per cent,

- The increase in the unit production costs does not reflect the true resource cost and foreign exchange picture of the tea industry; this is due to the existence of subsidies (e.g. fertilizer subsidy) and if these are added in the calculations, the macro-level impact on the COP will be even higher; at present, insufficient data is available to estimate this element.

Impact on Producer Earnings

Two points clearly emerge from the foregoing analysis: first, that while de-

valuation does have a beneficial impact on local auction prices, the extent of the gain is uncertain; and, second, that the cost increase resulting from this measure is more certain and even quantifiable. These two elements are juxtaposed in Table 3. In the absence of a well-defined model on the interrelationship between currency changes and market behavior, a sensitivity analysis has been attempted on the likely price scenario, but it would appear to be in order to proceed on the basis of a straightforward increase in the cost of production. It needs to be reiterated that the tabulation on the likely trend in prices has been captured only in the context of the currency factor (that is, "other things remaining the same" – something that seldom happens in tea!) and has no bearing whatsoever on the volatility of the tea market that is so well known for its high "price instability index". In other words, while a cost increase of about Rs 3.40 per kg or 4.05 per kg or Rs 4.70 per kg, as the case may be, can be taken as a certainty, the price gain indicated is merely a matter of conjecture.

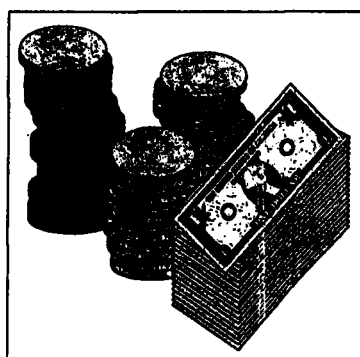
The above tabulation has also to be viewed in the context of the operating cycle of a tea estate. This relates to the incurring of expenditure on wide-ranging imported items such as fertilisers and chemical several months before cropping takes place, and processing the harvest thereafter (again, by recourse to imported fuel etc.) into a marketable produce. Under a free float, the value of the dollar applicable to the producer at the time of procurement could be vastly different than at the time of sale.

Impact on Estate Households

In a manner somewhat analogous to production costs, the accelerated erosion of the rupee has a detrimental effect on the cost of living of estate workers. This impact comes on top of the liberalisation of the economy which has already placed an additional burden on the lower (and fixed) income groups that were earlier protected through interventionist policies.

The expenditure pattern in estate households is indicated in Table 4.

Among the food items, the large share of rice (22 per cent), wheat flour (11 per cent) and sugar and pulses (4 per cent each) all have an import content. Given the fact that the demand for these items is relatively inelastic to an upward movement in prices, it is only to be expected that a rise in the share of expenditure on food will inevitably take place. When that happens, the resources available for non-durables (especially, clothing) get automatically curtailed. Another casualty could be the savings factor. As it is, an overall situation of dis-



savings exists in estate households and wherever the limited surplus had been put aside for consumer durables and household items (notably, TV which is now available in one-quarter of estate households), a reduction in such purchases becomes inevitable. A further possibility is that even the much-desired thrust on new and upgraded housing could receive a set back.

In terms of sectoral comparison, however, the overall impact of depreciation of the rupee would appear to be less pronounced in estate households than in urban areas. This is principally because an average city dweller has to incur about four times the expenditure on non-durables than an estate worker and twice that of his or her rural counterpart. As is well known, large proportion of expenditure on this account in the urban sector is on housing, medical care, transport, fuel, education etc to which the resident estate community, in particular, is relatively insulated.

Impact on Export / Import Trade

The classical economic theory is that devaluation will, by making exports more

attractive, enable a higher volume of shipments. In so far as the tea industry in Sri Lanka is concerned, this argument does not hold good for the following reasons:

- About 95 per cent of the island's production already finds its way into the export trade and it would be neither possible nor desirable to have the minimal balance share to follow suit; this situation is in sharp contrast to that prevailing in, for instance, India where devaluation can be used as a vehicle to divert supplies from the domestic market to exports,
- With respect to leaf crops like tea, supplies are neutral to liberalised export policies, especially in the short- and medium-term; yet, higher input costs which devaluation entails could have a detrimental effect on production,
- Sri Lanka's exports are overwhelmingly of the niche orthodox variety, the demand for which may have reached near-saturation levels; with almost 60 per cent of world imports being now CTCs, it is most unlikely that a favourable currency factor will in itself cause importers to shift to orthodox purchases or for local producers to diversify into CTC manufacture,
- Even after much depreciation of the Sri Lankan rupee, the price of comparable Nilgiri (above average quality) and Indonesian (filler) orthodox teas remains cheaper; to that extent, it is too much to expect a wholesale shift to Sri Lankan purchases.

On the positive side however are two features. First, since devaluation puts up import costs, it is possible that the vexed issue of tea imports may receive a back seat for the present. The other aspect is that tea export to South Asian countries, notably Pakistan and India, which has encountered bottlenecks could receive some impetus in the face of the floating rupee at higher levels of depreciation ■