I think we are all agreed that the issue we have been joining only arises if there is initially a free auction rate for foreign exchange substantially higher than the long-run equilibrium rate. The difference I shall call the surcharge. It is in effect a variable tax on the use of foreign exchange.

I would like to begin by posing a simple antithesis between the demand for foreign exchange in the making of consumer goods (excepting perhaps "essential" ones like food) and the "core" industries; not only because it is simpler, but because it presents your case in its strongest form.

What you propose is that the core industries should pay no surcharge and that as a consequence the consumer industries should pay a higher surcharge than they would have had the surcharge been uniform across the board.

As far as I can see, the reasoning in favor of this "shielding" of the core industries has different elements. I shall, as before, refer to the construction stage and the operating stage.

Let us first take a project about to enter the construction stage. What you want to prevent is that the project incur a cost either equal to the surcharge on its imports or, if it can find appropriate substitutes (e.g. cement for steel), a lesser cost. Whatever this additional cost, it would be built into the capital structure. When the project went into operation, it would be overcapitalized in comparison with its overseas competitors (if any) and with its later domestic ones, which didn't have to pay the surcharge.

What would this mean? It would mean that the project would earn a slightly lower rate of return by comparison with its competitors. I don't see that this matters very much, one way or the other.

Now I come to the operating stage, which I shall assume for the moment is some years in the future. As far as I understand your argument, you maintain that the managers who plan these projects have to be induced to measure the merits of alternative processes in terms of costs of inputs and prices of outputs which correspond to the long-run equilibrium rate. They must not build a surcharge into their operating forecasts, which they will not have to pay. I agree.

You further maintain that they can be so induced by offering them their correct requirements for construction without paying the surcharge. I think this is extremely far-fetched. I do not believe that anyone would draw this conclusion, unless by chance the product and the construction
material were the same (e.g., cement). People don't think in shadow prices. Just because you are raising one shadow price an actual one to them, they are not going to draw the conclusion that their operating figures have to be "shadowed" too.

The only way they are going to shadow their operating figures is by being told to or by making intelligent forecasts. They are more likely to do the latter, if in fact they have to pay high prices now.

Of course, there is also the case of the industry which is already in operation but is going to add new capacity. Here your argument is stronger. But then there is the problem of shadowing one price and not another. It is difficult to tell how prices of substitutes will move in relation to imported materials both in the short run and in the long without studying the individual supply situations and cost structures. I don't see any real substitute for doing this.

You might still say that, even if the advantages of your proposal are not great (without perhaps admitting it), there are no great disadvantages in waiving the surcharge for core industries either. All that happens is a purely temporary taxing of consumers and possibly some substitution on their part. To those in India who are sold down the river by the Ganges on investment this makes the case self-evident.

But I am not proposing to hold up investment (unnecessarily) or to inflict any real hardship. I am only suggesting that the general welfare might well be increased if the core projects were induced to think of ways of saving foreign exchange, by material substitution, by better use of existing equipment, by waiting a little where it isn't important (critical path exercises), by holding minimum verifiable stocks and so on.

By so doing they would release foreign exchange for, admittedly, consumption. But I cannot see why this in any way reduces the general welfare; rather the contrary. I am certainly reinforced in this view by the evident failure in many spheres of public investment to take advantage of possible savings and to adopt least-cost solutions. Public enterprises and projects have been prodigal of resources (private ones have also done their best to get similar privileges) and I would be very loath to give them any special favors which would give them the idea that they can continue to do so.

Once you bring in the intermediate group of industries we talked about which are non-core and non-consumer, then I think the argument begins to get much stronger against differentiated prices. Manufacturers will be induced to go for short-range import substitutes with a quick killing and less for longer-range substitutes (which might be used by the core industries), where the capital cost today is high and the selling price later is "normal". This will tend to happen anyway with a general surcharge, in ways which are not necessarily undesirable (exceptions being the u-sector consumer goods nobody likes). An artificially high surcharge greatly increases the risk of
distortion and waste of resources.

Another thing which troubles me, but which is rather horribly complicated in its implications (to me), is the fact that foreign exchange is a rather loose term. What is it and what are its equivalents? Should steel, which is imported, be treated similarly? Where do you end?

BEKing: nhh

cc: Mr. Bernard Bell
    Mr. Kenneth Bohr
    Mr. David Holland
A mathematician friend of mine once heard his professor say: "Now, it is evident that this set is directly derived from that set". My friend said: "I am very sorry, sir, I do not seem to see this offhand". The professor replied "Look, I shall show you", and he covered 200 square feet of blackboard with equations before arriving to Q.E.D. Then my friend said: "I am so sorry, sir, of course this is evident!"

This is just to say that it is often good to be forced to state explicitly what one thought to be evident. I instinctively knew that the core of my case was good. Precisely because of this instinctive feeling of evidence, I was caught off balance by your very pertinent objections which are so well grounded in welfare theory. And I am afraid I made a very bad defense of what I still think is a very good case.

It is implicit in your arguments that after devaluation of the effective rate we are back to equilibrium. I knew that your argument was based on this, and mine therefore rested on the contention that this is not true equilibrium; it is short-run only, not long-run in nature. I still think this is true, and I do not reject my past arguments; however, they are incomplete.

Your argument implies that the short-term equilibrium price of foreign exchange will leave us, on the transformation curve of foreign to domestic resources, over a portion of roughly unitary slope (in absolute value). Transformation, at that price of foreign exchange, is feasible and easy; domestic productive capacity will be fully employed, or, at least, if not, this will not be due to a shortage of foreign exchange.

My position is based on the contention that we may well be placed at a unitary-sloped part of the long-term transformation curve --in this direction I seem to be going further than Mr. Bell, in fact-- in the short run we are at a point where the curve is almost asymptotic to the "domestic resources" axis for the economy as a whole. This would mean that, if no selective measures are taken, the shortage of foreign exchange would not allow National Product to rise beyond a certain point, even if other resources were available.

1/ By the way, I never thought that managers could be "induced to measure the merits of alternative processes in terms of costs of inputs and prices of outputs which correspond to the long term equilibrium rate", simply by "offering them the correct requirements for construction without paying the surcharge". (Para.7 and 8 of your Memo) The important point is that they should be assured that the foreign exchange content of their current inputs and outputs should, now and in the future, be valued at the long term equilibrium exchange rate.
There can be no doubt about plenty of labour remaining available. As for capital, at present we have ample evidence of capital goods being underutilized for lack of imported production materials. We may hope that a devaluation would release some imports from uses where easy substitutes are immediately available. It is unlikely that so much would be released, in the short run, as to allow productive capacity in every sector to be fully utilized. What is more likely to happen is that both in production good and consumption good producing sectors some capacity would be left unutilized for lack of indispensable imported inputs. This is the macroeconomic view; on firm level, what happens is that demand is insufficient to justify the least efficient firms' (in both sectors) buying foreign exchange at its very high price; they would therefore leave their labour and capital idle. To switch back to macroeconomics, if global demand were raised, some firms would want to start producing again and bid for foreign exchange; The price of foreign exchange would go up, prices would rise, but the same underutilization of productive capacity would persist.

Over the long run, of course, new technology will be developed, adapted to the higher price of foreign exchange, which will reduce its scarcity and ultimately do away with its being a bottleneck. This is not just a pious hope; it is a guideline for action. Surely, there can be no purpose in building up productive capacity if, because of the shortage of foreign exchange, it cannot be used. But we do have such capacity now, and are still likely to have it, in the short run, after devaluation, if the level of net imports remains unchanged.

There are three conceivable sets of action we can recommend to deal with this situation. We can say that we cannot do anything about it; a wrong set of investments had been made. We ensure overall equilibrium of demand and supply of foreign exchange, and only of overall demand and supply, not of any specific ones; if this leaves some capital underemployed, wherever it be, we deplore it equally. I do not think anyone would seriously take quite this position East of the Chicago School --certainly not you, despite what I have, at times, naughtily pushed you into saying. Surely, in India, some demands for foreign exchange are more equal than others; we would ban travels to Monaco rather than deprive HMT from spares.

The second position would consist in saying that the adaptation is a temporary problem; after a while, new technologies will come into use, the shortage will subside. In the meanwhile, it should be overcome through increased aid. This argument has much to recommend itself, including its appeal to those of my instincts which whisper: "When in doubt, soak the rich". But how would the rich react? Even leaving aside the easy-to-eliminate frills of the Monaco type, would, say, the Bank not object to an increment in aid used in good part for imports of consumer goods or materials for consumer goods industries?

Opposition to this sort of imports was strong even when the need for aid was claimed to be based on a savings-gap argument. Then, of course, the
opposition was irrational. However, the argument for extra aid would now be based on the import-content argument. Then, it is only too easy to reply that certain consumer goods may well have a high and incompressible import content, but India can do without these goods for a few years.

The third position, which has been taken by Mr. Bell, and I think by David, is to recognize these objections, and propose that certain imports of final consumer goods be banned or discouraged by means of high custom duties; that imports of production materials clearly and solely destined to certain consumer goods industries be similarly banned or discouraged; and that demand for consumer goods which make heavy use of imports, should be discouraged by means of excise duties.

This latter position is, I believe, diametrically opposed to your stand, which is based on Paretian welfare grounds. What I reproach to it is that customs duties on final goods alone build up a vast, strongly protected area of intermediate goods production which is of doubtful utility and urgency within India's development strategy. This is in fact recognized when excises and customs duties on certain production materials are also urged. The latter would only displace slightly the area where intermediate industries grow up. The former would not discriminate between heavy and light users of the scarce factor. Surely, there is not much economic sense in discouraging per se the demand for a good if there is idle capacity for its production? An excise duty on cars to keep down the manufacturers' overall demand for foreign exchange would not distinguish between the make which has a low total import content and the make which has a high one. An excise on output, as compared to an excise or import content, would therefore reduce total welfare.

My three conceivable sets of proposals, are like the three Musketeers, four. The fourth one is a tax on the import content of inessential industries. In effect, I say: those industries which are known with certainty to be essential should be allowed to fully utilize their capacity; they should be given as much foreign exchange as they require for full capacity utilization. This foreign exchange should be given at its long-term equilibrium price. Only those productive capacities should be left unutilized in the essential sector whose full utilization is not remunerative at the long-term equilibrium rate of foreign exchange (considering only their short-term costs). This rate may allow the essential sectors to forego some present substitution possibilities which could be exploited without sacrificing either short-run capacity utilization or long-run technological efficiency. I am afraid this cannot be helped.

The nonessential sectors should be given whatever foreign exchange remains available at the price which would clear the market. The only remaining doubt concerns the sectors which we do not precisely know how to classify, including those which supply both the clearly essential and the clearly inessential sectors. This would partly depend on the degree of scarcity of foreign exchange. Aid givers might accept that some additional aid should be used for maintenance imports by such intermediate industries. If such additional aid is available, and cheap, it may be good to include the mixed with the essential. However, I
would on balance favor not including them, especially if this would mean pushing up extremely high the price of final goods imports, and thereby constituting a very protected, excessively profitable area of consumer goods production.

If the mixed sector is not included with the core, intermediate goods could still be given some protection by means of special "infant industry" import duties. The one remaining serious danger, that core industries would be tempted to import intermediate goods rather than buy them from the high-cost "mixed" sector, can similarly be overcome by means of import duties and subsidies.

As you see, I am still fully convinced that the multiple exchange rate system answers best to the situation where foreign exchange is scarce. Thanks to the discussion, however, I see better than formerly what is meant by this scarcity after the devaluation and institution of an equilibrium exchange rate. In the long-run, I too, like David, am on the side of unitary rates and all angles; could this be due to our being, in the long run, all dead?

cc: Mr. B. Bell
    Mr. D. Holland
    Mr. S. Please
Overwhelmed by my poetic enthusiasm, in my last note I failed to do justice to your position and in the process also did not make clear how my old arguments were connected with the new ones. Let me take it up at the point where, after devaluation and the removal of all controls, we suddenly find the "core" sectors having excess capacity because they cannot afford to buy all the imported inputs they need at the prevailing high price of foreign exchange.

You would then, I believe, provide direct subsidies to the core firms in such amounts as would be needed to enable them to operate at full capacity. I pass over the difficulty of computing and actually providing the amounts needed.

Once the subsidy has been provided, the core will raise its bid for foreign exchange; if money incomes in the economy are not left to rise in pace, at some level of subsidization the price of foreign exchange will have risen so high, and will have discouraged so many non-core buyers, that, taking into account whatever import-substitution that has been possible, enough foreign exchange is left to the core sector to allow it to fully utilize its capacity. The core sector too would therefore have to pay abnormally high price for foreign exchange, and thereby be induced to adopt a wrong technology according to an argument developed at length elsewhere.

Just a word more about the danger of taking decisions in the light of an undervalued exchange rate. Even assuming, as the Indians do at times, that the balance of payments problem is so serious that any import substitution that is physically possible should be undertaken, does not mean that a very depreciated exchange rate should be used to guide decision-making. Every import-saving may be worthwhile; but some are more worthwhile than others. An undervalued exchange rate, similar in this to the present "indigenous angle" clearance, would allow import substitution possibilities which are not among the most favorable to be chosen, and therefore more favorable opportunities to be neglected.

Stanley Please drew my attention to the fuzziness of my references to substitution curves. The attached figure will show what I mean. Line AA' shows the quantity of foreign exchange available, BB' the availability of domestic resources. LL' is the long-term transformation map; SS' the
short-term transformation curve. At time 1 we are at point $P_1$; the prevailing foreign exchange rate $SR_1$ fully determines technology by its tangency to the $L_1L'_1$ line (this is an oversimplification, of course; in reality, technology is not fully adapted to the 1:4.76 rate). Foreign exchange resources are fully utilized; there are unutilized domestic resources (both labour and capital) measured by $N_1B'$.

If we adopt the exchange rate $SR_2$, little short-term saving of foreign exchange will be achieved (none on the figure as drawn) because the short-term transformation curve is almost horizontal to the right of $P_1$ (the kink which appears on the figure is not material to the argument). In the long run, technology will adapt to the new exchange rate; the new equilibrium point on $L_1L'_1$ will be at $P_2$; domestic resources will have been substituted to foreign ones and the foreign exchange thus saved allows to move up to a higher transformation curve $L_2L'_2$. The new equilibrium point is $P'_2$; foreign exchange is fully utilized and unemployment of domestic resources has been reduced by $N_1N_2$.

As the graph stands, only an infinitely depreciated exchange rate --a horizontal line-- would achieve both equilibrium in the foreign exchange market and the full employment of domestic resources in the short run.

With this rate, the technological adaptation point would be on the far right; as adaptation proceeds, domestic resources would tend to be exhausted and the economy would tend to be pushed lower on the substitution map. Considering that domestic resources include both labor and capital this is not an absurd outcome; it would mean that total capital available now falls short of the requirements of the import-substitution program.

cc: Mr. Bell
    Mr. Please
    Mr. Holland
    JBaneth:bpn.
Mr. Jean Baneth
Benjamin B. King
Core (Anglais)

June 9, 1965

Having been exposed to the Theory of Relativity in its simplest form at an impressionable age, I have an innate distrust of absolute priorities.

I firmly believe that there has been a lot of waste in the name of core and nothing should be done to encourage its continuance.

I secondly believe, what is more controversial, that the core is not absolutely sacrosanct. Marginal substitutions are possible without prejudice to long-run technology, as I have also said before. Furthermore, a high temporary exchange rate might indicate certain postponements, even in the core. For example, the demand for electricity depends partly on rural electrification. If one reduces the pace or changes the timing of rural electrification, one may be able to save foreign exchange when it is most scarce. The judgment then depends on the relative importance of the marginal rural electrification, which in Whence it ought to depend.

I think this is my last piece of choreography.

REX: shh

cc: Messrs. Bell
     Bohr
     Holland
     Fantanali
TO: Mr. Benjamin King  
FROM: Jean Baneth  
SUBJECT: A last tour of Corecorean Gallery

Coreblimey, exclaimed-I upon receipt of your last note, let mine be the last too. Let us end this discussion with decorum. The waste in the name of core was not only India's if time is also included. Not to speak of nervous tension. If the discussion drags on, I shall have to seek succor from licore. A first draft of my segment of the report, containing a corpus of my findings and recommendations is being typed now. I put my heart in it: core meum misi in eum (St. Paul, letter to Coreinthians). We may resume our discussion when it is ready; but I hope we won't. We should all be very satisfied even with those solutions which we do not absolutely prefer; and it is for the Indians to decide upon the corese they want to follow.

JB: sb
Mr. Jean Baneth

David G. Holland

Why shouldn't I have my two bits worth?

June 9, 1965

Now that nearly all the atrocious puns have been made,
May I express the hope that, if and when agreement is reached,
no-one has the effrontery to refer to an entente cordiale?

DGH: sb

c.c. Messrs. Bell, King, Bohr
OFFICE MEMORANDUM

TO: Mr. Benjamin King
Mr. David G. Holland
Mr. Jean Baneth
Mr. Bernard Bell

FROM: 

SUBJECT: Transformation (Core to Bore)

DATE: June 10, 1965

I guess I have to get into this act: with apologies to E.E. Cummings and for haste:

Misters youse needn't be so spry
concernin' questions corey
Each has his tastes and as for I,
I tend to be a Tory

Give me Chicago's solid bless
for youse ideas I'll match yez
A single rate which fixed is
is worth a million catches

BRB: sb

c.c. Mr. K. Bohr