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tion to the funds used, is incomparably higher, and it is precisely these which merit to be considered in the first instance. If we wish to salvage at least something from the notions which were discussed here, we will need to reshape them from top to bottom. It will be necessary to prevent funds from being poured away into a bottomless barrel, and genuine self-aid will be needed to be

set in motion. It is useless to preserve a given structure — adaptation to the changing conditions of world markets is what is required. It is therefore preferable to give credits instead of making gifts, because this will ultimately result in the setting-up of something akin to a price stabilisation fund. But this is vastly different from what was intended at the beginning.

Import Substitution and Industrialisation

by Maurice Scott, Oxford *

For many developing countries that have wished to industrialise, it has seemed best to do this by starting to produce for themselves manufactures which would otherwise be imported. This has been achieved by restricting imports by a variety of means: tariffs, multiple exchange rates, import quotas or outright prohibitions. At a single stroke, these measures provide an assured market for the new industries, make them highly profitable and so attractive to both domestic and foreign capital, and, by reducing imports of the finished goods, provide the foreign exchange necessary to pay for required imports of machinery and materials. Furthermore, as the new industries grow, some of their high profits will be ploughed back into further investments, thus ensuring continuation of the process. All this is achieved, apparently, at no cost to the government. It is hardly surprising, then, that countries wishing to industrialise have sought to do so through protection.

Disenchanted Consumers

Nevertheless, as time has passed, disenchantment has set in. The first stage of import substitution involves the replacement of imports of manufactured consumer goods by home production. Apart from some consumer durables (notably motor cars), economies of scale are not very important here, and it is possible to produce clothing, leather goods, manufactured foodstuffs,

toys, cigarettes, matches, soft drinks, beer, etc., in factories of a reasonably economical size for the home market in quite a number of developing countries. In any case, it is the consumer who suffers from higher prices and poorer quality, and one can appeal to his patriotic sense to persuade him to suffer in silence. Once these industries have been set up, however, a whole new range of imports has been created, consisting of the semi-finished manufactures and materials required to supply them, as well as the machinery needed for replacements and further extensions. As home production moves into these fields (and also as it moves into the remainder of the consumer goods field) more cases arise where economies of scale are very important (motor cars, chemicals, basic metals). Furthermore, the users of these products are other producers, who do not wish to be compelled to buy from high-cost domestic sources, especially if quality is poor and delivery uncertain. Import substitution thus begins to look increasingly difficult.

Effect on Income Distribution and Employment

Another aspect of the policy which leads to increasing dissatisfaction is the effect on income distribution and employment. The high profits of domestic manufacturers permit them to pay wages which are often two, three or four times as much in real terms as workers can earn in the countryside. Governments have sometimes encouraged the payment of high wages through minimum wage legislation, support for trade unions, or other legislation protecting urban workers. This has had two effects. First, it has encouraged an influx of job-seekers from the countryside to the

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towns and, secondly, it has made it less profitable to employ labour in the towns. Productivity in manufacturing has sometimes grown rapidly through the replacement of traditional, small-scale, industries by modern factories, with the result that employment opportunities in industry have not increased very much (in some countries they have even fallen). There has therefore been a growing problem of urban unemployment, and some cities have become surrounded by shanty towns which are indescribably wretched. The social tensions which can arise from this situation have been lessened by the willingness of the favoured urban workers to support their friends or relatives from the countryside, but, human nature being what it is, strains and stresses inevitably appear.

The redistribution of income has not just been in favour of urban workers. Urban employers have also benefited, and it has been made clear for all to see that the way to fortune lies, not in producing something at less cost or of better quality than anyone else, but at higher cost or of worse quality – so long as sufficient protection can be secured, especially when this can be combined with domestic monopoly. It is difficult for governments, even if they wished it, to prevent monopolistic agreements amongst domestic producers. Once imports are cut off, so is the only real source of competition for domestic producers. The local market is too small to support more than a few of them. Some governments have, indeed, through investment licensing, kept down their size so as to increase their number and thus tried to create a competitive situation. However, this has usually only meant that costs have been higher because of the failure to realise economies of scale and because of excess capacity. Investment licensing itself tends to prevent competition, since the low-cost producer cannot expand and swallow-up his rivals.

Large profits for domestic industrialists are not popular, but large profits for foreign industrialists are even less so. It may be true that protection brings in some foreign capital that would not otherwise come, but it is an uneasy situation, and the more uneasy it is, the higher the profits required to attract the foreign capital. Investors want to recoup their money in a shorter time as the risks of exchange control, penal taxation, or perhaps expropriation become greater.

Measurement of Protection

In recent years, the attempt has been made to measure effective protection for manufacturing industries in some developing countries¹. One has, thereby, a summary measure of those aspects

of import substitution which have been discussed above: of the incentive given to produce for sale on the domestic market, and of the extent to which income has been shifted in favour of the manufacturing sector so that its claim on domestic expenditure has sometimes greatly exceeded its contribution to satisfying that expenditure through the output it produces. These points require some explanation and discussion.

The measure of effective protection which is most widely used is the ratio of value added in an industry (i.e. gross output less cost of materials and services purchased from other industries, which in turn equals the sum of profits and wages in the industry) at domestic prices to what it would be if measured at "world" prices. Let us call value added at domestic prices (the actual value added) V . To calculate value added at world prices we must multiply the quantities of the various goods produced by an industry, not by their actual prices, but by their import prices c.i.f. or (if they are exported) by their export prices f.o.b. This is what we mean by "world" prices. Similarly, we must multiply the quantities of inputs by their world prices before subtracting them from total output to arrive at value added². Let us call the resulting value added at world prices V^* . Then a measure of the incentive given to set up the industry concerned is $\frac{V}{V^*}$. The greater this is, the higher is actual value added above the level it would have been under free trade. Table 1 gives measures of $\frac{V}{V^*}$ for manu-

Table 1
Average Effective Protection for Manufacturing, $\frac{V}{V^*}$

Country	Year	$\frac{V}{V^*}$
Argentina	1958	2.74
Brazil	1966	1.98
Mexico	1960	1.27
India	1961	4.13 ¹
Pakistan	1963/4	22.00 ²
Philippines	1965	1.50
Taiwan	1965	1.38

¹ One-sixth of large-scale manufacturing only. 'Corden' method used for non-tradable inputs which biases the estimate downwards compared with the others in the table.

² Large-scale manufacturing only.

Note: $\frac{V}{V^*} = 1$ would correspond to free trade. Prices of non-tradable inputs assumed to rise in same proportion as 'f' in col. (3) of Table 2 as a result of protection, which gives estimates in between the 'Balassa' and 'Corden' methods.

¹ Bela Balassa has directed a project concerned with this for the World Bank. Some of the estimates quoted here are derived from that project, and some from the OECD project already mentioned.

² This very brief explanation ignores the treatment of non-tradable outputs or inputs. Two methods have been proposed in the literature to value these, known as the 'Balassa' and 'Corden' methods. In Table 1 an intermediate method has been used which is described briefly in the note to the table.

facturing industry as a whole in seven developing countries. Since agriculture in these countries has received very little protection on average (so that $\frac{V}{V^*}$ for agriculture has been approximately one), these measures show, albeit very roughly, the incentive given to industrialise relatively to developing agriculture in these countries. It is clear that in some countries the incentive has been very strong, and a study of the available data suggests that it has been much stronger than in Western Europe or Japan in the early days of their industrialisation.

Great Variability of Protection

As well as being high on average in some countries, $\frac{V}{V^*}$ has been extremely variable between different manufacturing industries. For some (often exports) it has been less than one, indicating that these industries have been severely penalised by having the costs of their inputs raised as a result of protection given to other industries, while the prices they have received have not been raised in the same proportion (perhaps not at all, e.g. for exports which receive no subsidy). For others, it has been close to infinity, indicating that value added at "world" prices has been very small indeed. In fact, cases have been found in which in value added at world prices has apparently been negative: the foreign exchange value of inputs has been greater than the foreign exchange value of outputs. There are various explanations for this, and it is not necessarily true that it implies economic inefficiency and a waste of resources. Nevertheless, in some cases it undoubtedly does imply that.

The great variability of protection seems to have no economic logic behind it. Indeed, before these measures of effective protection were made, no one really knew how much protection a particular industry was receiving. Attention was often focused on the extent to which the prices of an industry's output were raised by protection, to the neglect of the effect on the prices of the industry's inputs. Where protection was given by quota, information on even the first of these was difficult to obtain. It is not the case, therefore, that protection has been given to this or that industry in accordance with some carefully worked out plan designed to help, for example, those infant industries with good prospects of eventually growing up and dispensing with the need for protection. The particular levels of protection given to particular industries cannot be explained by any economic rationale.

If total domestic expenditure is E , $\frac{V_i}{E}$ measures the claim of industry i on domestic expenditure. But does it also measure its contribution to that expenditure through the output it produces? In the case of a highly protected manufacturing industry, one can argue that it does not. The output of such an industry has, as we have seen, led to a reduction in imports of manufactures. Many of its inputs have been imported. Some (e.g. Pakistan's raw cotton or raw jute) have come out of exports. Hence one could say that, to a great extent, the contribution of manufacturing has been as a saver of foreign exchange, and that the net amount of foreign exchange saved is given by V^* , its value added at world prices. However, we cannot use V^* as a measure of manufacturing's contribution to domestic expenditure without allowing for the fact that most of the countries we are concerned with have overvalued currencies. The internal value of foreign exchange is more than is indicated by the official exchange rate. Hence we must multiply V^* by some factor, f , which allows for the extent of overvaluation of the currency (or undervaluation of foreign exchange). We thus arrive at a measure of the industry's contribution to domestic expenditure, which is $\frac{f \cdot V_i}{E}$.

Factors for Various Countries

Table 2 shows for some countries the claim of manufacturing on domestic expenditure compared with its contribution measured on the assumption that this is equal to its net saving or earning of foreign exchange (V^*) multiplied by the factor shown in the last column of the table. The factors for the various countries are intended to be a rough measure of the overvaluation of their currencies, and were obtained by averaging the effective protection given to manufacturing in each country with that given to agriculture (assumed to be none). If protection were uniform so that, for example, there was a tariff of 100 p.c.

Table 2
Claim of Manufacturing on Domestic Expenditure and Contribution to it
(Years as for Table 1)

Country	Claim $\frac{V}{E}$ (1)	Contribution $\frac{f \cdot V^*}{E}$ (2)	Overvaluation factor f (3)
Argentina	31.3	22.5	2.0
Brazil	27.9	21.3	1.5
Mexico	19.0	17.2	1.15
Pakistan ¹	7.0	0.4	1.25
Philippines	19.0	15.2	1.2
Taiwan	18.7	16.0	1.2

¹ Large-scale manufacturing only.

ad valorem on every import and a subsidy of 100 p.c. on every export, the internal price of every good would be double what it would be under free trade (assuming that there was no difference in the exchange rate or the balance of payments, and no other restriction on trade). In this simple case the correct factor to use would be 2, for any industry which earned or saved a given amount of foreign exchange, when converted at the official exchange rate, would earn or save twice as much measured at internal prices. In practice, of course, tariffs and export subsidies are not uniform, and one is uncertain how far protection has permitted the internal price level to be raised. The factors shown in Table 2 are only a rough attempt at providing an answer.

It can be seen that manufacturing industry's contribution to domestic expenditure has been less, sometimes very much less, than its share in that expenditure. The most striking divergence between the two is for Pakistan, where it seems that there were some important industries with negative value added at world prices. These offset the positive contributions of other industries and so reduced the total contribution of (large-scale) manufacturing. Although one must bear in mind the many uncertainties attached to these estimates, they do prompt the question as to whether high levels of protection have achieved worthwhile results.

Emphasis on Encouraging Exports

Disenchantment with import substitution, and the pressing needs of the balance of payments, have led some countries to place increasing emphasis on encouraging exports of manufactures. Initially there was much pessimism about the ability of developing countries to increase their exports of manufactures enough to make a substantial contribution to total earnings of foreign exchange. Exports of manufactures were very small, and were subject to many restrictions in both developed and developing countries. However, Hong Kong, India, Pakistan, South Korea and Taiwan

have all shown that, if suitable inducements are given, exports of manufactures can be increased very rapidly indeed. For countries with high levels of protection, the pull of the home market and the high level of domestic costs need to be offset by export subsidies, rebates of import duties, or similar measures. Devaluation, if combined with the relaxation of import restrictions, can also greatly stimulate exports. There is a danger, however, that export subsidies can be pushed to such lengths that manufacturing for export adds as little value, at world prices, as manufacturing for sale on the home market, as appears to have happened in Pakistan. In exporting, just as in any other activity, costs must be weighed against benefits.

More Open Trade

Despite this qualification, there can be little doubt that the moves towards a more open economy, and away from autarky, which have been made in several developing countries in recent years have been in the right direction. The developed countries must see to it that further moves of this kind are encouraged, and this requires a readiness on their part to accept a much larger volume of imports of manufactures from developing countries. An important conclusion which emerges from the OECD study already referred to is that it is most unlikely that a larger volume of imports of manufactures would cause severe market disruption in the developed countries, and that, in any case, there are well-tried procedures for dealing with any disruption which may occur. Just as the mutual freeing of trade in manufactures between developed countries has benefited all concerned, so can the mutual freeing of trade between developed and developing countries. But it is the developed countries that must take the initiative, since the developing countries are too heterogeneous and weak to bargain with them. A bargain is, in any case, unnecessary. If the developed countries buy more from them, there is no doubt the developing countries will use the foreign exchange to import more from the developed countries.

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