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The terms-of trade myth and development strategy

"An excessive pre-occupation with the terms of trade is a sign of economic hypochondria" (Kindelberger)

One of the commonest and most durable of economic myths is that there is a secular deterioration in the terms of trade of countries which export primary products. Any paper or speech on the foreign exchange difficulties of these countries, or on the increasing inequalities in the world economy, makes a ritual reference to this alleged trend, and a good deal of energy has gone into attempts to explain why it occurs. It reappears frequently, for instance at the recent United Nations Conference on Trade and Development in Geneva.[1/]

So far as the really long-term trend is concerned, the proponents of this thesis apparently overlook the detailed analysis made by Theodore Morgan.[2/] Professor Morgan demonstrated that the available data were conflicting; that the unit value indices for the trade of the United Kingdom, which were the main source for earlier studies,[3/] show a different story if taken still

1/ See for example "Towards a New Trade Policy for Development", Report by the Secretary-General of the Conference.

2/ "The Long-run Terms of Trade between Agriculture and Manufacturing" in Economic Development and Cultural Change, October 1959

3/ "Industrialization and Foreign Trade" (League of Nations, 1945) and "Relative Prices of Exports and Imports of Under-Developed Countries" (United Nations, 1949).

further back to the beginning of the nineteenth century; and that these indices are in any case subject to two major biases, both of which work in the same direction. These are (i) that qualitative improvements have been more important in manufactures than in primary products; and (ii) that, because of falling transportation costs, the actual terms of trade facing countries exporting primary products have moved more favourably than would be shown by indices concocted from prices at United Kingdom ports.

The meaning of series covering a century or so is in any case not entirely clear. The structure of the world economy has changed so much since the 19th century that the balance of forces today may well be quite different from what was to be found then. No single theoretical explanation can be expected to cover the whole period. Besides, any series going back so far links together index numbers with various weighting systems, so that its interpretation is not easy; and, broadly speaking, the further one goes back the worse the quality of the data.

The deterioration in the 1950's and early 1960's gave new life to the terms-of-trade thesis. Yet one can hardly build a theory on the experience during this particular period. In 1950, wartime shortages of primary products still lingered; they persisted in fact well into this decade, because, although the supply of primary products was improving, this was a period of a fast upward trend in incomes in Western Europe. Mo eover, on top of this basically favourable situation for commodities came the Korean War, which caused a speculative boom in the second half of 1950 and for most of 1951.

In the early 1960's, on the other hand, the terms of trade of primary producers were unusually poor. The growth of Western Europe had slowed down; excess capacity created in the earlier boom had depressed some commodity markets; the prices of cereals were affected by the huge United States farm inventories and by the United States Government policy of subsidising exports of farm products.

What has been happening is that many economists have been mistaking a medium-term for a long-term tendency and have focussed their attention on the downward phase of a cycle[1]. We can get the experience of the post-war years into better perspective by looking at data for the period from 1928 to 1962, a period long enough ago to provide some idea of the trends at work in the middle of the twentieth century, but not so long that great conceptual or statistical difficulties are raised.

Table

Terms of trade of non-industrial countries 1928 to 1962

(1928 = 100)

	Export unit values (X)	Import unit values (M)	Terms of trade (X)/(M)
1928	100	100	100
1937-38	69	80	86
1950	188	168	112
1962	176	184	95

1/ Thus the series in the Geneva conference document "Handbook of International Trade Statistics" all start in 1950

Sources: Data for 1962 to 1957, from "Trends in International Trade" (GATT, 1958), were linked to data for 1950 to 1962 from "Handbook of International Trade Statistics" (UNCTAD, 1964), by equating averages for the period 1955-57. There have been some slight changes in coverage: "non-industrial countries" in GATT data include Finland and Spain, whereas "primary commodity exporters" in the UN data do not. (Both series include Australia and New Zealand, and exclude Japan and Turkey).

All the figures in the table refer to years when the level of activity was high in industrial countries. A partial exception was 1937-38, when the world economy had not fully recovered from the great depression.

The table shows that between 1928 and 1962, there was no significant change in the terms of trade - a 5% decline is not statistically significant, especially if one allows for quality improvement in manufactures (a car of 1964 is generally considered an improvement on one of 1928). There has been a rise in commodity prices since 1962, and the terms of trade are in 1964 if anything, better than three and a half decades ago. It could be argued that there were some abnormal factors in the recent rise in commodity prices1/, but it is normal for commodity markets to be subject to abnormal influences.

1/ Judging from the United Kingdom indices, they are also about where they were in the second quarter of the nineteenth century.

2/ It may be argued that what are really relevant are the terms at which primary products exchange for manufactures, rather than the terms of trade of countries which sell mainly primary products. This can only be checked for agricultural products. Linking together series in various issues of the State of Food and Agriculture (FAO), it seems that in 1962, the terms of trade in this sense were about 10% higher than in 1928, a figure somewhat larger than obtained from the other method of calculation. However recently, prices of agricultural products rose particularly fast, and in 1964 the terms of trade in this sense are probably also about the same as in 1928.

If something has to be explained it is why the terms of trade show no noticeable trend over a period covering a world slump, a world war and a series of drastic political changes, including the winding up of the British and French colonial empires and the almost complete isolation from world trade of an important group of countries (the Soviet Union and Eastern Europe).

The reason why economists seem to accept the terms of trade thesis so uncritically lies probably in the powerful intellectual support this thesis gives to the case for the industrialization of underdeveloped countries (and more recently to the case for their special treatment in the aid and trade). After all, it would obviously be foolish to commit much resources to sectors producing goods with a chronically falling real price. This looks like a good answer to the naiveties of the static doctrine of comparative costs.

Yet to abandon the terms-of-trade thesis as a myth is by no means the same thing as abandoning the case for industrialization. To get rid of a myth is to strengthen, not weaken, an argument. We can find some clues in the historical evidence on how to rebuild this case, but we have to look at the trends in <u>volumes</u>, not in <u>prices</u>.

The total world consumption of manufactures (excluding the Communist countries) rose by 193% in volume between 1928 and 1960, whereas the total consumption of primary products rose by 70%

(or 59% if petroleum is excluded)[1]. These rises are equivalent to annual average increases of 3.4% and 1.7% (or 1.4% excluding petroleum). World population rose by about 1.5% in the same period, so the increase *per capita* in consumption of primary products was very slow (possibly negative if petroleum is excluded). In fact calculating income-elasticities of demand in the usual way, we would obtain about 1.5 for manufactures and less than 0.2 for primary products.[2]

The gap between these figures looks rather large; income elasticities of demand are known to be much higher for (say) consumer durables than food, but we would expect a smaller figure for manufactures as a whole and a much larger one for primary products. In the first place, however, we are not referring here to consumers' purchases of food, but to total consumption of primary products. The trend in this is affected by two additional influences, the rising amount of processing done on each quantum of physical inputs.[3] Moreover, income has become much more unequally distributed in the world during this period, and such a development

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1/ See the Report of the Secretary-General to the Geneva Conference (op.cit.) p. 19. These data actually refer to production, but since the changes are substantial, inventory movements can be ignored, and since the non-Communist world is virtually a closed system, so can foreign trade.

2/ Taking the rise in the total production of primary and secondary products (2.7% a year) as representative of the trend in income in the non-Communist world. Actually, services probably rise faster than goods (because of the expansion of professional, military and civil services in the developed countries), so the elasticity shown here for manufactures, may be a little too high. (The figure for primary products, being so small, is not very sensitive to errors in the estimated growth of income).

3/ Basically these tendencies are the same; so-called "synthetics" are simply materials in which primary products have already been highly processed.

tends to raise the demand for manufactures and reduce that for primary products.1/

These demand tendencies have been reflected in three shifts: (i) in the structure of national economies, towards manufacturing, (ii) in the structure of world trade, towards manufactures, and (iii) in the structure of world income, against countries which have not succeeded in industrializing their economies to any significant extent.2/

Whatever the historical evidence, past trends are only relevant for policy to the extent that they provide a clue to future prospects. The terms-of-trade thesis is really a forecast, when it is used to buttress the case for industrialization. Yet here it seems particularly doubtful. There will naturally be recessions as in the past, and one thing which experience does indicate is that the terms of trade of primary producers do deteriorate whenever there is a general decline in activity. (This is in fact one perfectly good reason for weighting one's decision in favour of industry in development planning). Unless a sensible system of international liquidity is established, which looks unlikely, a serious recession can reasonably be anticipated in the next few years.

1/ This is because income elasticity for food and other primary products are apparently not constant but falling with respect to income. In passing we should note that the forces producing greater inequality reinforce each other. The greater the change in the structure of world demand in favour of the manufacturing countries, the more their income rises, and since their income elasticities of demand for manufacturing are particularly high, the more the structure of world demand changes in their favour. I have tried to demonstrate the inherent tendency to inequality more rigorously in "Comparative rates of growth in the world Economy" (Economic Journal, March 1962)

2/ Since the protection of farmers in industrial countries inhibited the full modification of their economic structures, the changes in the structures of world trade and world income were greater than they would have otherwise been.

But it is the trend, not the cyclical fluctuation, which is really significant for long-term development policy. Are the underlying long-term forces such as to turn the trend in the terms of trade of primary producers downward at last? One's answer can be better than a hunch, and mine is that they will be better at the end of the century than they are now.[1]

In answering such a question, one has to ask one's self what new influence can be expected. Tendencies on the demand side will no doubt continue as before - the income elasticities seems fairly fundamental. Technical progress will also continue to material-saving in its implications. So the consumption of manufactures will continue to outrun that of primary products.

There are two new influences on the supply side. The first is the emphasis in development plans on investment in industry, an emphasis partly attributable to the terms-of-trade thesis itself. (Paradoxically, the more people believe this thesis, the less likely that it will prove correct). This does not only increase the supply of manufactures, it also discourages agricultural production. People are drawn into the towns and unemployment in the rural areas shrinks, so that wages in agriculture rise above subsistence levels.[2]

1/ Naturally in practice this has to be done for each country separately. I amtalking here of general tendencies.

2/ The effect of a change in relative wages could be offset by a faster rise in productivity in agriculture than in manufacturing. This seems unlikely however, especially for tropical foods.

There is in fact some evidence to support this hunch. One can look at the experience of the Communist countries, as a sort of pilot scheme of forced industrialization. Taking as a group, they have been converted into net importers of primary products and net exporters of manufactures, a development which will itself be of increasing importance in the world economy.

It may be argued that industrialization is not a new factor, but until recently the structural changes in Communist countries did not greatly affect commodity markets, because their trade with the rest of the world was small. Elsewhere the effect of attempted industrialization on world trade has so far been limited. The demand for certain imported manufactures has of course been affected, particularly textiles, but this has been offset by the rise in the demand for capital equipment and vehicles.

The second new factor is that the long-term supply course of minerals may turn out to be rather unrealistic. One reason is that though productivity will continue to rise and new discoveries will be made, there are some ores (especially iron and copper) which will grow more expensive to mine towards the end of the century. Another reason is that foreign direct investment is now discouraged by the political uncertainties of the underdeveloped countries.

But if we were sure that the terms of trade of commodity producers would improve, it would not follow that they should eschew industrialization - or that they can manage without growing aid. The real clue for policy-makers, international and national, is that trends in the terms of trade are swamped by trends in volume. This was true, as we have seen, in the period 1928 to 1962, and will almost certainly be true in the future. It is very unlikely that the terms of trade of primary producers will improve (or for that matter deteriorate) by more than ½% a year over the long period, whereas the upward trend in the volume of consumption of manufactures is likely to continue to exceed that in the volume of consumption of primary products by something between 1% and 2% a year. Indeed if the terms of trade do change significantly in favour of primary products, this would cause a still bigger divergence between the trends in volume.

One can still salvage something of the terms-of-trade doctrine from this discussion. For the divergence in volume does set a ceiling to the possibilities of primary production. If the non-industrial countries as a whole were to attempt to extend their production for export at the same pace as they need their national incomes to grow (which is at least 5% a year), they really would turn the terms of trade against themselves. In this sense, there is something in the thesis; but this is not how it is usually put, and it is now only of theoretical interest.

The correct explanation of the growing inequality in the world economy puts policy on a much sounder footing. (One hardly wants to have one's argument upset each time commodity prices turn upwards). It also leads to more far-reaching conclusions. After all, if all that is wrong with the world economy's development is a change in relative prices, one could correct it by devices such as commodity stabilisation schemes, and production controls. But if the cause is more fundamental, then either the structure of the world economy has to be changed, or an international fiscal system is needed. Those who cling to the terms-of-trade thesis do so, no doubt sub-consciously, to avoid this conclusion.