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# Free Trade, Protection and Economic Development

by Jochen Röpke, Marburg\*

Central to the following discussion is the assertion that a foreign trade policy which maximizes the static efficiency gains from trade may result in reduced dynamic or X-efficiency and thus impair a developing country's development potential. The dominant view of the relation between international specialization and economic development is summarized. An alternative line of argument is presented in outline. Finally, the implications for development policy are sketched.

'he traditional theory of international trade expounds reasons why. given prerequisites, free trade generates a maximum of social product or Pareto-optimal allocation economic resources and why protection (divergence from laissez-faire) amounts to a wastage of resources in the sense of these criteria. In spite of all the refinements of the theory in the past decades this seems to me to represent correctly the present state of discussion, as can be easily verified by anybody who cares to consult a modern textbook on the theory of international trade or the relevant literature in the journals. Admittedly, many economists do not feel very happy about this state of the discussion<sup>1</sup>.

It is difficult, however, to articulate the theoretical unease in terms of the neoclassic paradigm. Kindleberger's assertion that "free trade may stimulate, but it may also fossilize" may be as incomprehensible to orthodox free traders as its inverse form — "protectionism may stimulate, but it may also fossilize" — to an avowed protectionist. As many a historic fact can in my opinion be adduced in support of either of these two assertions, it seems all the more important to state precisely under which theoretical conditions free trade (protection) may stimulate or impede economic development.

David Ricardo's venerable "theorem of comparative costs" is still the focal point of recent scholarly debate on the relations between protection and economic development. As Haberler has stressed, its *logic* is "unassailable", and the organization of international

trade should therefore be based on this theorem in every economy *independent* of its level of development<sup>3</sup>.

#### The Theorem of Comparative Costs

The following reasons may be brought forward to illustrate the importance of the theorem of comparative costs with respect to economic development:

(1) Differences in the level of development or "productive strength" (Friedrich List) which are reflected by differences in factor productivity or finding expression in relative price differentials are no argument against free trade from the point of view of development theory. The theorem of comparative costs proves on the contrary that no nation, however backward, can ever be overpowered by a superior economy's competition in all branches of production,

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<sup>&</sup>lt;sup>1</sup> Cf. Warren J. Samuels: Economics as a Science and Its Relation to Policy: The Example of Free Trade, in: Journal of Economic Issues, Vol. 14, No. 1, March 1980, pp. 163-185.

<sup>&</sup>lt;sup>2</sup> Charles P. Kindleberger: Economic Response, Cambridge, Mass., and London 1978, p. 45.

<sup>&</sup>lt;sup>3</sup> Gottfried Haberler: Der internationale Handel (International Trade). Reprint, Berlin, Heidelberg, New York 1970, p. 3. Frank Graham offered this classical formulation: "It is a matter of mathematics, *quite independent of environment*, that there is an inherent gain in the specialization along the lines of comparative competence which unshackled trade tends to develop. There is *no possible refutation* of this analysis. Advocates of a restrictive commercial policy must, in *logic*, accept it as a *fact*... Free trade is a ubiquitous and timeless principle" (our italics). To emphasize that this view is endorsed also by modern economists, Bhagwati wrote: "An economist writing today could not have put the *essence* of the problem better" (our italics). Cf. Frank D. Graham: Protective Tariffs, New York 1934, p. 58 f., and Jagdish Bhagwati: The Theory and Practice of Commercial Policy. Special Papers in International Economics, No. 8, January 1978, Princeton University, p. 7.

for no nation is without comparative cost advantages, even if it operates in all branches of production at an absolutely lower level of productivity. This means: The theorem affords a natural protection for certain branches of indigenous production.

(2) Free trade on the basis of the theorem maximizes the real national income in the short and long run. A nation can procure goods "more cheaply" (in the sense of surrendering less national resources) through international trade than by producing all goods for itself or by restricting free trade. While the quality and quantity of the productive forces at the disposal of an economy do not change at first on transition from restricted to free trade, the quantity of goods at its disposal does increase under free trade. These gains from trading are maximized under free trade, and it makes essentially no difference if a longer view is taken. If an economy engages at all times in specialization in accordance with the theorem, it will also maximize its trade advantages in the course of time.

#### Implications for Optimal Trade Interventions

From these theoretical conclusions follow certain rules which states should abide by when intervening in foreign trade and to which developing countries should also adhere:

- (1) In the absence of national distortions (infringement of the marginal equivalences for attainment of the Pareto-optimum, for example, if there is a divergence between marginal social costs and marginal private costs), policy interventions in international free trade (protection) reduce the national welfare.
- (2) If there are national distortions (because the conditions of perfect competition are not fulfilled in the factor or goods markets or because external effects arise), tariffs *may* increase the economic welfare. Tariffs are however in no case the "first-best" possible form of trade policy intervention because they would introduce a consumption-distortion through the rise in prices.
- (3) External effects alone are recognized in theory as justifying an intervention in a free trade-oriented allocation.
- (4) Owing to the ubiquity of external effects it is possible to present theoretical reasons for large-scale state intervention. Liberal economists (like Haberler or Johnson<sup>4</sup>) have objected that the difficulties of identifying and quantifying external effects precisely, in particular circumstances, render them virtually useless

as a basis for a practice-oriented economic policy. Thus the existence of external effects as a rule does not justify interference with the international price mechanism because these external effects are presumably Pareto-irrelevant.

#### **Arguments for Protection**

We argue with Schumpeter that the realization of new combinations (innovations) is a necessary condition for economic development. Differences between nations in the level of their development could thus be ascribed to the ability and motivation of a region's innovators to use new combinations. The lack of entrepreneurial abilities is thus for the theory of development the fundamental scarcity and hence should also be basic to a theory of international trade whose subject is the interaction between international trade and development. Free trade between countries different development potentials competition between enterprises and individuals with different entrepreneurial abilities. Assuming international immobility of the development factor "innovatory ability" this means, furthermore, that advanced countries possess a comparative advantage in the production of goods into which entrepreneurial abilities enter in relatively large quantities. Economically less developed countries, on the other hand, have necessarily a comparative disadvantage as regards the production of innovation-intensive goods.

The more a factor is concentrated on the production of the importable good, the more it stands to lose from free international competition. Because the more developed countries are relatively well endowed with capabilities for producing innovations, they will have comparative advantages in producing innovation-goods.

To ensure an orientation of international trade on the basis of the principles of free trade, international competition would have to generate a structure of incentives discouraging the production of innovation-goods by entrepreneurs in developing countries. Innovations are, however, the basic source of profits in a system of free competition. The remuneration for innovatory activities in developing countries must therefore be expected to show a tendency to decline as a result of:

<sup>&</sup>lt;sup>4</sup> Cf. Gottfried Haberler, op. cit., pp. 205 ff., and Harry G. Johnson: Commercial Policy and Industrialization, in: Economica, Vol. 39, 1972. The latter questions not only the practicability of the case for infant industry protection but also its theoretical basis: "Modern theory leaves little, if any, of this argument still standing." (p. 270).

#### **DEVELOPMENT STRATEGY**

☐ unrestricted imports of competence-intensive goods from more highly developed countries,

 $\hfill \Box$  free trade-induced substitution of competence-intensive productions by less competence-intensive ones.

Free imports of innovations from "the North" discourage innovatory activities by entrepreneurs in "the South".

What implications have these reflections for the economic theory and policy of international trade?<sup>5</sup> We shall deal here with a central aspect which is traditionally circumscribed by the concept of the production function.

The production function describes a technologicalorganizational input-output relation in the sense that a certain combination of inputs generates over a certain period of time a certain technologically determined output. The transformation of input into output is, as a rule, assumed to be allocatively and technically efficient. A given input will generate the maximum possible output.

The theory outlined here disputes this determinism. It claims that the efficiency of the input-output transformation depends on additional (X-) factors and more especially on the extent of entrepreneurial

motivation and efforts of the labour force. In consequence, the degree of motivation (effort) must be taken into consideration as an endogenous or discretionary variable if the relation between input and output is to be elucidated.

Let us consider an economy which produces two goods - good X and good Y. The maximum amounts of both goods capable of being produced with the factor endowment of this economy may be represented by the transformation curve I. Let us now examine the empirical situation already known to us: Countries differ in regard to their relative endowment with entrepreneurial abilities. Correspondingly, they have comparative advantages or disadvantages in the production of innovation-intensive goods. We assume that the factors of production are internationally immobile and, further, that the starting position is one of autarky. Goods incorporating a relatively large number of the given entrepreneurial competences are in this case produced also in the low-competence country (on national price line 1 the location of production is at P<sub>1</sub>). Entrepreneurs produce on a production possibilities curve of high effort (with the highest degree of technological efficiency) - assuming nationally unrestricted competition.

Let us now turn to a situation of free international trade — with the advanced country possessing comparative advantages in innovation-intensive Y-production: With free trade the new production point would be at  $P_2$ . In the low-competence country production is restructured in the light of comparative price signals of the world market from Y-production to X-production. The national welfare increases correspondingly.

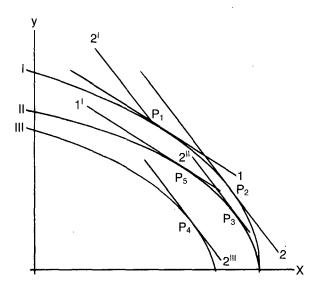
This is the dominant view of matters. However, how would this structural change from an autarkic economic system to an export-oriented one proceed if

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<sup>&</sup>lt;sup>5</sup> For the details of the following line of argument cf. Jochen R ö p k e: Der Einfluß des Weltmarktes auf die wirtschaftliche Entwicklung (The influence of the world market on economic development), in: H. G i e r s c h et al. (eds.): Weltwirtschaftsordnung und Wirtschaftswissenschaft, Stuttgart and New York 1978, pp. 30-52; by the same author: Probleme des Neuerungstransfers zwischen Ländern unterschiedlicher Entwicklungsfähigkeit (Problems of innovation transfer between countries with different development capacities), in: Ordo, Jahrbuch für die Ordnung von Wirtschaft und Gesellschaft, Vol. 29, 1978, pp. 245-279; by the same author: Weltwirtschaftliche Arbeitsteilung bei internationalem Kompetenzgefälle (International division of labour in the case of international competence differentials), in: A. S c h ü II e r , U. W a g n e r (eds.): Außenwirtschaftspolitik und Stabilisierung von Wirtschaftssystemen, Stuttgart, New York 1980, pp. 81-97.



- I Transformation curve with restricted international trade
- II With free trade
- III With free trade and mobility

entrepreneurial motivation is taken into consideration as a discretionary variable?

The move from point P<sub>1</sub> to the free trade production point P<sub>2</sub> - reflecting the opening of an economy to the world market and its fundamental transformation - is taking place in historical time. The new optimal combination of goods at point P2 - optimal as it is welfare-maximizing - has thus first to evolve, and this process does not by any means take place automatically and economically painlessly. The Yproducers, i. e. the producers of the innovationintensive good, are unable to withstand the superior world market competition. Their innovatory residual profits dwindle. The entrepreneurs face tasks which the majority of them are unable to master successfully. The challenge of the world market is too difficult for them. According to achievement motivation theory6 they should in this situation be expected to suffer motivational frustration, to resign, to reduce their efforts - to produce "X-inefficiently" as Leibenstein puts it.

In such a situation, the economy will be unable to produce at point P<sub>2</sub> on the "high effort" curve of

production possibilities. On the contrary, the transformation schedule will turn (*not* shift) to the left, indicating higher levels of X-inefficiency in the production of the innovation-good.

If we start from a historic situation of free trade, i. e. from a situation in which entrepreneurs in more highly developed countries have comparative advantages in the use of new combinations, the entrepreneurs in lowcompetence countries face an environment which impedes the use of new combinations. They may even generate motivational inhibitions to innovatory activity: "If a certain kind of activity has been punished or frustrated in the past, the environment will be the source of an inhibitory force and there will be growth in the strength of a negaction tendency, i. e., a tendency not to engage in that activity. The anticipation of a negative consequence for engaging in an activity which has the functional significance of an inhibitory force acting to increase the strength of the negaction tendency, produces resistance to engaging in an activity."7

## International Mobility of the Factor "Entrepreneurship"

These considerations assume greater practical and historic relevance if the premise of international immobility of the factors of production is discarded. From the viewpoint of development theory the mobility of the production factor "entrepreneurship" is of outstanding importance. Given international mobility of entrepreneurial competences, the theorem comparative costs loses an additional part of the "natural" protection which it provides to entrepreneurs in less developed countries under the conditions of international immobility. Foreign entrepreneurs endowed with superior abilities can establish themselves in a developing country and compete directly with the local producers of good Y which is the object of import competition and of good X which is exported. This forces more Y-entrepreneurs and increasingly also X-entrepreneurs out of the market and/or into market niches to which competing foreign goods or foreign enterprises established in the country have no access. The "natural" comparative advantages, which a low-competence country derives from its particular factor endowment (low wages, raw materials, climate, etc.) and which give entrepreneurs with inferior abilities in a situation of international

<sup>&</sup>lt;sup>6</sup> We use the achievement motivation theory (as developed by Atkinson, Heckhausen, McClelland, Weiner and others) to explain entrepreneurial (innovatory) activity. Similar results can be obtained on the basis of the X-efficiency theory of Harvey Leibenstein: Beyond Economic Man. A New Foundation for Microeconomics, Cambridge, Mass., and London 1976; General X-efficiency Theory and Economic Development, New York, London, Toronto 1978.

<sup>&</sup>lt;sup>7</sup> David Birch, John Atkinson, Kenneth Bongort: Cognitive Control of Action, in: B. Weiner (ed.): Cognitive Views of Human Motivation, New York, pp. 76-77.

immobility chances to compete in the world market, are now appropriated by foreign entrepreneurs.

The production possibilities curve built up by indigenous entrepreneurial activity does not only turn to the left. With international mobility of the factor "entrepreneurship" it may even shift to the origin because now also the entrepreneurs of good X lose their "natural" protection.

In both instances — with or without mobility — the national profit ratio (share of profits in the national income) declines in the new situation (free trade) compared with the starting situation (autarky or protection).

It can be deduced without difficulty from the graph that with variable entrepreneurial efforts free trade has smaller effects on the welfare of the low-competence country. Under protection the economy has a welfare point on the price line  $2^l$  to the left of  $P_1$ ; in free trade without "X-inefficiency" it is on the price line 2 to the left of  $P_2$  (which corresponds to a higher level of well-being than under protection). In the case of free trade with X-inefficiency the welfare possibilities are limited by the price line  $2^{ll}$  (they are thus smaller than with free trade without X-inefficiency and possibly — depending on the magnitude of the X-inefficiency effects — also smaller than under protection). In the case of free trade with X-inefficiency and international mobility the welfare limit is on the price line  $2^{lll}$ .

The same process, but with positive X-efficiency effects, can be derived if we change from free trade to a protective system in a low-competence country. The chain of cause and effect is now as follows: higher prices of imports (under tariff protection) and/or subsidies, higher entrepreneurial incomes, reduction of the high task difficulties due to free trade, increased entrepreneurial efforts, X-efficiency gains (the production function moves higher), larger investments in their own competence (shown in the graph by a turn to the right of the production possibilities curve). This leads to a greater welfare gain than assumed in the conventional model with a *given* production function (given entrepreneurial efforts) — a new production point  $P_1$  instead of  $P_5$ .

#### **Conclusions**

Our conclusions are accordingly: The development possibilities of a nation with relatively low innovative abilities are increased by constraints on free trade and reduced by a free trade integration in the world market. X-efficiency is reduced by free trade and increased by protection. Even the promotion of entrepreneurial

activity by protection through tariffs does not necessarily result in disadvantages to the consumers; hence it does not necessarily involve a "sacrifice" by the consumers for the development of the nation.

Protection improves the income distribution to the benefit of the entrepreneurs but not necessarily at the expense of the others; i. e. it does not result in lower absolute welfare. In this sense protection is even welfare-increasing in the sense of the Pareto criterion. The market failure in the sense of entrepreneurial effort reduction under free trade is corrected with a positive effect on X-efficiency without making it impossible for those who gain (the entrepreneurs) to compensate less well placed groups in society dependent on the kind of protection policy pursued.

It seems to me that these considerations permit a judicious interpretation of the ideas of Friedrich List and others. List's argument for protection is traditionally grouped with the external effects case. Investments to increase productive strength may be omitted because of an incentive failure due to external effects, i. e. to internalization difficulties, but also because of an incentive failure due to world marketinduced inadequate motivation. An interpretation of List's ideas in terms of the market failure paradigm makes them however inconsistent, for List, it will be remembered, criticized the allocation approach ("theory of values") of the classical "economic school" most fiercely. Karl Marx, on the other hand, hit the nail on the head when he interpreted<sup>8</sup> a system of protection as an efficient device to "fabricate" entrepreneurs, to "expropriate" independent workers, "capitalize" the means of production and subsistence, and to fasten the introduction of new methods of production. Entrepreneurs are "fabricated" through stronger incentives for competence building activities, means of production and subsistence are "capitalized" and workers "expropriated" through a change in the property rights, and the introduction of new technological methods is fastened by the elimination of disincentives for innovatory activity.

Alternative development policies have been mentioned here only incidentally. It should therefore be emphasized that intervention in the free international trade motivated by the above considerations can form part of a strategy of import substitution *or* export promotion: Protection need certainly not involve reduced world market integration. Its purpose is rather to improve the structure of incentives for entrepreneurial activities in developing countries.

<sup>&</sup>lt;sup>8</sup> Karl Marx: Das Kapital, First Vol., Berlin 1961, pp. 796 f.