

THE IMPACT OF INTERNATIONAL TRADE ON ECONOMIC GROWTH

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ABSTRACT

In this paper, we examine the studies, since Adam Smith, on the impact of commercial and technological aspects, resulting from international trade, on the physical accumulation and quality of productive factors. We remark that the theory of economic growth and the theory of international trade, during the ‘classic period’, constituted two inseparable branches of economics. In this epoch, it was believed that international trade has a positive effect on the economic growth. Later, during the ‘neoclassic period’, these two theories of the economic thought became autonomous relatively to each other. Consequently, the importance of international trade was neglected in the context of economic growth, especially until the 1960’s. Recently, with the introduction of models of endogenous growth, both theories have merged again. The modelling frameworks advanced by the new models, as well as the recent developments inside the international trade theory, has allowed us to obtain a better understanding of the relation between economic growth and international trade.

5. CONCLUSION

In the present work we tried to explain the importance of commercial and technological (dynamic) aspects underlying the IT to EG. We noted that the dynamic potential afforded by IT that was pointed out by the classics [Smith (1776)] was disregarded by the ‘marginalist revolution’. This was due to the fact that the ‘marginalist revolution’ studies temporarily left out the lines of the long-term evolution of the economy. As we know, after 1870 the EG was no longer viewed as a great issue for economists due, as it seems, to the perspectives opened by IR. Nevertheless, as exceptions to the rule, authors like Marshall, Young and Schumpeter still dealt with the importance of IT to EG. On the other hand, for instance, the main development in what concerns the scope of the IT theory (the Heckscher-OhlinSamuelson model) came to the conclusion that countries benefited from the opening to IT; however, it did no more than identify static gains. But existing studies – for example, Baldwin (1984) – conclude that the static effects (gains only for the increase in the level of per capita income) are very modest.

It was in this context that, namely after WWII, occurred some reactions to the classical and neoclassical theories which ended up being put to practice in the experiments with introverted and protectionist growth, specially in Latin America. In short, the defenders of these theses maintain that the relevant products as regards IT were produced in keeping with the appeals of the DCs markets and their technologies. Thus, the LDCs were in a disadvantageous situation due to their reduced dimension and sophistication of their markets, as well as to the weak capacity for technological innovation and to the commercial intervention in what concerns the DCs consumers.

The interest for the EG reawakened, however, with the works of Solow (1956 and

1957). From then on there was a real concern in analyzing the questions belonging to growth in a quantified and systematized way (with a clear distinction between questions belonging to growth and questions belonging to development).

It should be noted, however, that Solow's (and Swan's) neoclassical growth model assumed technological progress to be exogenous, not because this was a realistic assumption, but because it was the only tractable one. This suggests that interaction with other countries may have no effect on an economy's long term rate of growth. Nevertheless, there may be some interesting effects of openness in the long term level of welfare, and in the transition to the steady state. In the open economy version of the neoclassical model, international flows of capital raise the rate of convergence to the steady state.

In the late 1950s, the seminal paper by Solow (1957) attempted to account for economic growth in the US, finding it to be not fully explained by the increase in productive inputs such as labour and capital alone. The largest part of growth was thus attributed to a residual. In subsequent research, much effort was devoted to trying to better understand the origin of productivity increases by squeezing down the residual, by introducing other variables such as accumulation of human capital, economies of scale, a better allocation of resources and new generations of more productive machines. However, even with the introduction of new variables an unexplained residual remained.

Therefore, on the one hand, the attempt to determine sources of growth in their entirety and, on the other hand, the failure of introverted growth experiences and the association of fast EG to the opening of IT and to the resulting international specialisation in several countries led to the undertaking of research on trade and growth (which adopted the neoclassical framework). We mentioned some theoretical studies – structuralist syntheses, analyses that underscore economic integration, the models of Findlay (1980 and 1984) and Feder (1982) –, empirical applications – among others, structuralist studies, Feder (1982) and Ram (1987) – and studies and/or recommendations about the external commercial policy – among others, UN recommendations, Balassa (1978, 1986 and 1987), Krueger (1985) and WB (1987) – whose defining characteristic is to view IT (above all the exporting component) as an explanatory variable of EG.

Generally, they associate that situation with a better allocation of resources (according to the comparative advantages), with a greater utilisation of the productive capacity (which makes it possible to obtain economies of scale), with the greater propensity to implement technological improvement (in answering to the greater competition that they face) and with the higher level of employment created in comparison with introverted strategies.

Although this body of literature enlarged the original framework, technology was still treated as a public good. However, on the one hand, in view of the neoclassical theory's limitations (mainly because the technological progress is exogenous but also because, in open economies, this suggests that, in practice, the increase of the convergence among countries is not verifiable) and, on the other hand, in view of the many developments and suggestions

which are afforded by Smith, Schumpeter, Knight, Arrow, Kaldor and Uzawa, among others, economists have recently started to model the process of knowledge accumulation, and the resulting literature is known as endogenous growth theory. This allows us to develop tractable and flexible models that embody the vision of economic life as an endless succession of innovation and change wrought by competition.

These growth models allow for an economy to be able to reach a balanced growth path through endogenous forces and underscore the microeconomic foundations of the growth process, identifying in detail the driving force of growth (which is knowledge, generally under the form of technological innovation), its respective dynamics as well as the driving forces which influence its accumulation. Thus, in most new models the determining factor of economic growth is endogenous innovation, and this innovation is still influenced by IT. Consequently, the modelling which these new models afford brought with it a more exact approach to the relation between EG and IT. So we can say that the dynamic potential created by IT was decisively recovered more recently with the advent of the models of endogenous growth.

Furthermore, the endogenous approach, bringing increasing returns and non-competitive market structures into the core of growth analysis, made it so that perfect competition would no longer be a *sine qua non* condition for optimal trajectories of growth to exist. The growth path may not be optimal. So, the governmental intervention may be useful in order to move the growth path towards the optimal one.

Regarding the contribution of IT to EG, in light of the new approach, we alluded to Romer's work (1990), which viewed IT as a motivating factor of growth, when integrating economies with different levels of human capital. We also saw that the assumptions as to differences among countries condition trade patterns and their effect on growth. With respect to this, Lucas (1988) and Grossman and Helpman (1991a) assume that the only differences among countries have to do with initial provision of factors, whereas Grossman and Helpman (1990) point to differences in respect to the countries' technological capacities.

The works of Grossman and Helpman (1991b and 1991c) and Rivera-Batiz and Romer (1991a) have also helped clarify why a country's participation in an integrated world economy can speed up its growth: among other reasons, it allows access to a wider base of technological knowledge, it makes technological diffusion easier, it motivates research and avoids redundancies in research. We also presented Romer's work (1993), which recommended that the LDCs open to the foreign investment with more advanced technology so that they could register increases in the rate of innovation and in the economy's rate of growth.

In this context, the abundant empirical evidence, specifically, suggests that trade openness tends to be beneficial for growth. Especially for the DCs, because they affect the domestic rates of innovation. And for the LDCs (which hardly invest in R&D) because of the dynamic effects of the economic integration with DCs, the catch-up of the

convergence, the importation of capital goods and the capacity for adaptation and implementation of innovations. Finally, let us mention that the intensity of dynamic effects depends simultaneously on the geographic structure of international trade (i. e., on the level of development of trade partners), on the composition and intensity of IT and on the capacity for internal technological adaptation, which is made possible through higher levels of human capital, as suggested, for example, by Lucas (1988) and Romer (1990).