INTERNATIONAL TRADE AND ECONOMIC GROWTH: THE CLASSICAL RUMINATIONS IN THE ENDOGENOUS GROWTH FRAMEWORK

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ABSTRACT

This paper assesses the rumination of classical trade theories in the endogenous growth framework. There are two key verdicts: first, between the endogenous growth models that place emphasis on the development of human capital along with the productivity doctrine of Smith (1776). These similitude frameworks stress the importance of improving global trade on the verge of economic growth. Building up one's human capital. Second, models of endogenous growth place a strong emphasis on the relationship between endogenous technological advancement and the Comparative advantage theory of Heckscher (1919), Ohlin (1933), and Ricardo (1817, 1933). These similitude frameworks argue that the allocation effect can be used to explain how international trade contributes to the process of economic growth.

INTRODUCTION

Human capital accumulation and technological improvements are still at the forefront of economic literature in terms of playing a part in the process of long-run economic growth. Both classical trade and endogenous growth models invent human capital accumulation and technological improvements as an important part of their models. Explaining the contribution of trade to economic development, the classical trade models (i.e., Smith, 1776; Ricardo, 1817; Heckscher, 1919; Ohlin, 1933) emphasize the development of both human capital and technology. The classical trade models explicate the process of long-term economic growth and the significance of international commerce in two different ways. On the one hand, Smith (1776), by fostering it, stresses the importance of foreign commerce in the process of long-term economic progress and enhancement of the learning and research processes (productivity doctrine). Conversely, the comparative advantage doctrine (Ricardo, 1817; Heckscher, 1919; Ohlin, 1933) emphasizes trade's contribution to better resource allocation.

Similarly, there are two major categories for endogenous growth models. One group of models, which has a neoclassical background, promotes the development of human capital in order to speed up production. [1] This group of models can be argued to have a resemblance with the productivity doctrine of Smith (1776). The second group of models that have a Schumpeterian background stresses innovations and improvement

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[1] Romer (1986); Lucas (1988); Becker, Murphy, and Tamura (1990); Rebelo (1991); Stokey (1991); and Lucas (1993).

in technology to have an increased rate of producing output.[2] This group of models similitude to the comparative advantage doctrine of Ricardo (1817), Heckscher (1919), and Ohlin (1933). This paper addresses how the classical trade models ruminate in the endogenous growth model, explaining the part that trade plays in achieving long-term economic prosperity.

The rest of the article is organized as follows. The connection between global trade and economic growth is discussed in Section 2 using a traditional framework. The contribution of global trade to economic expansion is discussed in Section 3 of the endogenous growth framework. Section 4 of the paper's conclusion should summarize the main findings.

INTERNATIONAL TRADE AND ECONOMIC GROWTH IN THE CLASSICAL FRAMEWORK

The mercantilist view that "trade is a zero-sum game" has been disputed by classical economists, who have established that trade may be advantageous for all trading partners. For instance, one may infer two conclusions that international trade is advantageous from Smith's (1776) examination of the connection between trade and economic expansion. First, international trade expands the market's overall size. Second, as markets grow, trade between countries creates labor division, which raises labor productivity and skill levels and, therefore, raises the level of output (productivity doctrine). Similar to this, Ricardo (1817) created a model of international trade based on regional variations in worker productivity and introduced the concept of comparative advantage. According to his definition, global output is increased by international commerce if each nation sells the products in which it has a comparative advantage.

The "H-O model" has explained resource differences among trading partners to define international trade and has argued that comparative advantage is determined by relative differences in factor endowments between nations (Heckscher, 1919; Ohlin, 1933). They have demonstrated that "there can be winners and losers from international trade," in contrast to Smith (1776) and Ricardo (1817), suggesting that it may increase overall welfare. In general, these models' basic tenet was that production specialization was what led to profits from the international exchange (comparative advantage doctrine).

Although both the productivity and comparative advantage doctrines agree that international trade promotes economic growth, however interpret the consequent specialization differently. Specialization, in a comparative advantage doctrine, means moments along a static production possibility curve while assuming the resources and techniques available for production are given. Resources that were earlier employed to produce other goods are now shifted to the production of the good in which the country bears a comparative advantage. International trade, in this setting, is the way to achieve static allocative efficiency [3.]

On the other hand, the productivity doctrine (Smith, 1776) looks upon international trade as a dynamic force that splays the size of the markets for domestically produced goods, promotes the division of labor, enhances the skill and ability of workers, and consequently encourages technical innovation. Putting it alternatively, two different views prevail among classical economists regarding the way that international trade translates into economic growth. On the one hand, the productivity doctrine (Smith, 1776) emphasizes the role of trade in promoting and enhancing research and learning activities. On the other hand, the comparative advantage doctrine of Ricardo (1817), Heckscher (1919), and Ohlin (1933) stresses on the role of trade in enhancing resource allocation.

INTERNATIONAL TRADE AND ECONOMIC GROWTH IN REGARD TO ENDOGENOUS GROWTH FRAMEWORK

Romer (1987) and Lucas (1988) pioneered a school of thought regarding the growth model. The "Endogenous Growth Theories" are the names given to the revolutionary growth hypotheses proposed by this school. The

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[2] Romer (1986); Grossman and Elhanan (1990, 1991a); and Aghion and Howitt (1998)
[3] That comparative advantage leads to specialization in particular production that enhanced resource allocation.

endogenous growth models fall into two broad groups. One group of models emphasizes the accumulation of human capital to accelerate production activities. These models are said to have a neoclassical background. The second group of models stresses innovations and improvement in technology to have an increased rate of producing output. These models are thought to have a Schumpeterian background.

The first group of models can be argued to have a resemblance with the productivity doctrine of Smith (1776). For instance, Romer (1986) defines that capital formation produces human capital as a byproduct. A company's knowledge base grows as its capital stock does. The expansion of markets allows for the production of many intermediate inputs, which increases learning through experience and raises the stock of human capital, increasing labor and capital productivity. In this framework, international trade is crucial to maintaining economic growth (productivity doctrine).

Similarly, the model put forward by Lucas (1988) can be contended to bear resemblance with the productivity doctrine of Smith (1776). Lucas, in his model, identifies two different types of accumulation of human capital, both on and off the job, which has been built up over time. According to Lucas, the quantity and kind of overall human capital accumulation rate are influenced by the goods produced in an economy, which is referred to as human capital accumulated on the job. Therefore, more human capital will be accumulated in nations with a competitive advantage in the kinds of goods closely related to education. By increasing the stock of human capital through international trade, the output can be increased (productivity doctrine). Lucas (1993) further stated that "learning by doing bears diminishing returns and hence learning rates on individual production process decline over to zero". The workers must switch to different production tasks to prevent "learning by doing" from producing declining returns. According to Lucas, global trade gives workers a chance to switch to new tasks and maintain a sustainable learning process.

Considering models for endogenous growth's second group that emphasizes on endogenous technological improvements has analyzed the effect of trade internationally on economic expansion through allocation effects. For instance, Romer's (1990a) model states that knowledge growth (R&D), which is crucial for the invention and innovation process and, consequently, for long-term economic growth, comes from both "learning by doing" and the introduction of a broader range of commodities. Romer identifies three industries to create new knowledge. The R&D sector first uses human capital and the existing body of information. Second, an intermediate goods sector employs the R&D sector's designs to create producer durables that are used in the creation of final goods. Third, the final goods sector produces output using a combination of producer durables and human capital. Long-term economic growth depends on the deployment of human capital since R&D and the final goods sector compete for human capital utilization. The model suggests, among other things, that investing more human capital in R&D can increase output rates in economies with substantial stocks of human capital. According to Romer (1990b), international trade can speed up output expansion by introducing a broader range of goods, increasing the economy's knowledge base.

Grossman and Elhanan (1990) looked at a variety of ways that commerce with other countries influences long-term economic growth. They have found that the growth rate will be higher if technical knowledge is shared internationally as opposed to locally generated information. Also, they have cited a number of instances where trade can cut down on research in one of the integrating economies. They have established that there are two distinct sources of gains from global commerce. First, households in each trading nation have the chance to purchase novel goods created overseas thanks to international commerce. Second, if nations specialize in areas with a comparative advantage, international commerce increases static efficiency. Like Grossman and Elhanan (1991b, 1991c) explained global trade is the sole major factor in the diffusion of technology. Open economies have access to a larger pool of technical knowledge, which lowers the cost of innovation and speeds up the introduction of new products. Foreign commerce also makes it easier to diversify research, which leads to more intense rivalry and, in turn, more rapid innovation, creativity, and scale economies.

Rivera-Batiz and Romer (1991) have investigated the ramifications of international economic integration under an endogenous growth paradigm. They make a distinction between the free flow of ideas and trade in things. They contend that expanding trade broadens the selection of capital items (intermediate inputs), which expands the market for lone researchers. Free trade of commodities does not impact the distribution of human capital between the R&D and manufacturing sectors, though, as the change in reward for human capital (increases in return to human capital) remains the same in both rival sectors (i.e., R&D and manufacturing sector). If the trading economies have identical baseline knowledge stocks, free trade should have no impact on the economic growth of the trading economies in the first instance (free trade in products). Nevertheless, this implies that countries that are poorly endowed with human capital can devote a large proportion of human capital to R&D after opening. However, the effective stock of knowledge that can be used in research will increase if international flows of ideas are also permitted.

Like classical economists, two views prevail among the endogenous growth models regarding how international trade translates into economic growth. On the one hand, the growth models that have a neoclassical view (i.e., Romer, 1986; Lucas, 1988; Rebelo, 1991; Stokey, 1991; Lucas, 1993) emphasize the role of trade in enhancing and accumulating human capital. According to this theory, international commerce expands the market size, creating more intermediate inputs, which promotes learning through experience and raises the stock of human capital, enhancing labor and capital productivity. This endogenous growth framework bears a resemblance to the productivity doctrine of Smith (1776). On the other hand, the growth models, which have a Schumpeterian background (i.e., Romer, 1991; Aghion & Howitt, 1992), emphasize the role of trade in the view that it offers spaces for creativity, which therefore spurs advancements in technology. This endogenous growth framework is a resemblance with the comparative advantage doctrine of Ricardo (1817).

CONCLUSIONS

Classical economists explain the function of trade on a global scale of long-run economic growth in two different ways. On the one hand, Smith's productivity hypothesis (1776) advocates "how commerce between countries affects long-term economic growth through promoting and enhancing research and learning activities." The comparative advantage doctrine, on the other hand, places emphasis on the contribution that global trade makes to improving resource allocation (Ricardo, 1817; Heckscher, 1919; Ohlin, 1933). The role of international commerce in driving economic growth was also characterized differently in the two main categories of endogenous growth models. The growth models that have a neoclassical background stress the function of trade internationally in the process of economic expansion through enhancing the accumulation of human capital and resemblance with the productivity doctrine of Smith (1776), Whereas the growth models with a Schumpeterian foundation highlight the importance of international trade in that it fosters innovation and, as a result, results in technical advancements that are consistent with the idea of comparative advantage. (Ricardo, 1817; Heckscher ,1919; Ohlin, 1933).

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