The Dynamics of Multinational Corporation-Impacted Comparative Advantage: Relevancy to Ricardo’s View on Cross-border Investment and Samuelson’s Skepticism about Globalization

Terutomo Ozawa
April 10, 2013

The Dynamics of Multinational Corporation-Impacted Comparative Advantage: Relevancy to Ricardo’s View on Cross-border Investment and Samuelson’s Skepticism about Globalization *

By

Terutomo Ozawa

Professor Emeritus of Economics
Colorado State University

ABSTRACT

The notion of “pro-trade” vs. “anti-trade” foreign direct investment (FDI) was conceptualized by Professor Kiyoshi Kojima (1921-2010) of Hitotsubashi University and theoretically formalized in an article in The Hitotsubashi Journal of Economics (Kojima and Ozawa, 1984; reproduced in the United Nations Library on Transnational Corporations, Vol. 8). The core idea is that multinational corporations’ (MNCs’) overseas investments in emerging markets have two opposing effects on the basis for trade; one is to expand comparative advantage (i.e., a pro-trade effect), and the other is to reduce comparative advantage (i.e., an anti-trade effect). This paper shows how the above theoretical distinction helps clarify both David Ricardo’s pessimism about the welfare effect of cross-border investment on the home country and Paul Samuelson’s skepticism of the long-term benefit of free trade to the United States in an age of globalization.

*An earlier version of this paper was presented at a seminar at the Graduate School of Economics, Kyoto University, Japan, organized by Professor Takafumi Kurosawa, March 4, 2013. I am grateful to him and his graduate students who were kind enough to be a sounding board for my ideas. This paper forms part of a book manuscript (in progress), The Evolution of the World Economy: The “Flying-Geese” Theory of Multinational Corporations and Structural Transformation, Elgar (forthcoming)--the third volume in a trilogy on the reformulated flying-geese theory of economic development.
1. Introduction

Professor Kiyoshi Kojima (1921-2010) of Hitotsubashi University, Japan, made an important conceptual distinction between the “pro-trade oriented” and the “anti-trade oriented” foreign direct investment (FDI) (in two articles, “Reorganisation of North-South Trade: Japan’s Foreign Economic Policy for the 1970s,” 1973a, and “A Macroeconomic Theory of Foreign Direct Investment,” 1973b). He also called the former the Japanese type of FDI, while the latter the American type. Although Kojima was not aware at the time when he presented the above distinction, Ozawa (in a report to the U.N. on Japan’s technology transfers, 1971) had earlier pointed out the comparative advantage-enhancing characteristic of Japan’s technology transfer to its neighboring emerging economies in the 1950s and 1960s. Ozawa argued (i) that Japan was transferring the industrial knowledge of labor-intensive, small-scale manufacturing (such as textiles) in which Japan was fast losing a comparative advantage as a result of rapid catch-up growth—and (ii) that Japan’s such technology transfer (via FDI, licensing, and other means) was enhancing the comparative advantage of developing host countries (i.e., of the pro-trade nature) for a number of reasons: the intermediate overall level of Japanese technology (i.e., not too advanced to absorb), the dominance of small-sized firms in Japan’s light industries (i.e., equally suitable for developing economies’ markets), Japan’s newly acquired catch-up experiences/know-how (i.e., immediately shareable/reusable). Also, in 1972 Ozawa used the same framework of analysis in a World Bank working paper, Labor-Resource-Oriented Migration of Japanese Industries to Taiwan, South Korea and Singapore (Ozawa, 1972).

Subsequently, Kojima (in “Transfer of Technology to Developing Countries—Japanese type versus American Type,” 1977) expanded on the topic of how differently technology flows would affect the host countries’ basis for comparative advantage, citing Ozawa’s 1971 work extensively. In the meantime, Ozawa elaborated on Kojima’s pro-trade model of FDI in an article, “International Investment and Industrial Structure: New Theoretical Implications from the Japanese Experience,” in the Oxford Economic Papers (1979a) and a book, Multinationalism, Japanese-Style (1979b). These coincidental interactions and meeting of minds quickly led to a close friendship, frequent exchanges of ideas, and a number of collaborative research works between Kojima and Ozawa for many subsequent years. And one significant outcome of collaboration was a more theoretically refined and formalized version of the “pro-trade vs. anti-trade” paradigm of FDI published in the Hitotsubashi Journal of Economics (Kojima and Ozawa, 1984), which also later came to be reproduced in Volume 8 of United Nations Library on Transnational Corporations (Gray & Dunning, 1993).

The first section that follows reviews the dynamics of multinational corporation (MNC)-impacted comparative advantage (in either a pro-trade or an anti-trade manner), the second section examines how it is related to, and helps clarify, David Ricardo’s view on overseas investment and Paul Samuelson’s skepticism about the long-term benefit of free trade for the United States in the context of globalization (especially in the form of knowledge flows), and the final section presents a summary.
2. The Dynamics of MNC-impacted Comparative Advantage

Kojima (1973b) initially categorized Japanese overseas investment as pro-trade oriented and American overseas investment as anti-trade oriented in such a clear-cut fashion that inevitably exposed himself to criticisms for oversimplification and overgeneralization—despite the usefulness of the conceptual distinction as an analytic (as will be made clear below). Such a reaction quickly came, for example, from Arndt (1975). In fact, as will be seen below in our interpretation of Samuelson’s analysis, American overseas investments have been characterized by both pro-trade and anti-trade types.

As far as Japan’s postwar overseas investment (which was identified as pro-trade) is concerned, Japan was seeking two types of overseas assets: natural resources and labor. In the late 1950s and throughout the 1960s Japan was in the midst of reconstructing and modernizing heavy and chemical industries and in dire need of raw materials and energy fuels. Being resource-indigent, Japan had to depend on overseas supplies. At the same time, Japan was then losing a comparative advantage in labor-intensive low-end manufacturing due to rapidly rising wages. Most output from the natural-resource-seeking type of Japanese FDI was shipped back to Japan, while the manufactures from the labor-seeking type were exported to third-country markets (mostly the advanced world) or back to Japan. Hence, Japanese FDI was clearly of the pro-trade type in those days.

In sharp contrast, American manufacturing investments abroad and technology transfers at that time were designed largely to produce for local markets relatively sophisticated, technology-based, and capital-intensive products in which the United States enjoyed a comparative advantage. Consequently, this characteristic was reflected in—and in fact gave empirical support to—the so-called “monopolistic theories of FDI” (Hymer, 1966/1976; Kindleberger, 1969; Caves, 1971; Galbraith, 1973; Williamson, 1985) and the product-cycle theory (Vernon, 1966; Hirsch, 1967). Therefore, Kojima’s classification of the Japanese type and the American type of FDI was on the whole correct for the early postwar decades.

On a pure theoretical front, in the meantime, the relations between international trade (commodity flows) and cross-border investment (capital flows) were originally conceptualized as perfect substitutes within the Heckscher-Ohlin (HO) theoretical framework by Mundell (1957)—that is an anti-trade situation. The HO trade theory (Ohlin, 1933) explains a pattern of trade in those goods produced with different factor intensities between those countries that are differently endowed with three basic factors of production (i.e., capital, labor, and land). Rybczynski (1955) was the first who extended the HO model to a change in factor endowments (say, an increase in labor or capital) and the effect of that change on the relative composition of national product (e.g., labor-intensive goods vs. capital-intensive goods). This effect has come to be known as the Rybczynski theorem: When one factor (say, capital) increases, the industry that uses that increased factor relatively more intensively expands, whereas the industry that uses the factor less intensively contracts—both in absolute terms. Mundell made use of the Rybczynski theorem in constructing a model of perfect substitution between trade and a single-factor movement. Mundell’s work was soon followed up by Flatters (1972).
Krause (1974, 1976), and Ozawa (1976) in a string of articles in the *American Economic Review*, that produced a series of increasingly more elaborate versions of a two-factor-movement model as substitute for trade—each with the use of the Rybczynski theorem. These works all focused, however, on the substitution (i.e., anti-trade) case alone.

Kojima (1975) proceeded to give a theoretical underpinning to his complements (pro-trade) model, which is exactly opposite to the Mundell-originated substitution model and the Rybczynski theorem. That is to say, with the inflow of FDI capital a developing host country’s production frontier shifts outward in such a direction that the less capital-intensive (i.e., labor-intensive) industry (namely, that developing host country’s comparatively advantaged industry) expands, while the capital-intensive industry contracts, resulting in an enhancement of the basis for trade (i.e., comparative advantage augmentation). In technical terms (Figure 1), the complements case is depicted by the Rybczynski (R) line that slopes in quite an opposite direction to the one used in the Mundell model. Kojima’s R-line slopes in such a direction that with the inflow of FDI capital the labor-intensive (comparatively advantaged) industry expands and the capital-intensive (comparatively disadvantaged) industry declines—that is, in a direction contradictory to what is predicted by the Rybczynski theorem.

What causes such a stark difference between Mundell’s and Kojima’s R-lines? Mundell assumes homogeneous, fungible, and instantly movable (nonsector-specific) capital applicable to any industries in the best tradition of neoclassical economics. And such capital is supposed always to flow from locations with low marginal capital productivity to those with a higher marginal productivity in search of allocative efficiency—in accordance with the neoclassical marginal productivity theory of capital (or labor) and the “perfectly competitive” factor market for capital (or labor). This means that capital flows mostly into a developing country’s capital-intensive (comparatively disadvantaged) industries. In contrast, Kojima defined capital as “entrepreneurial capital” (such as managerial skills and technical knowledge) which is mostly sector-specific—specific to a host country’s comparatively advantaged industries.

In this regard, it should be noted that Markusen (1983), whose model is also built on the Rybczynski theorem, is normally credited and cited for theorizing the complements case. He observed; “… factor mobility must lead to an inflow of the factor used intensively in the production of the export good [in the host country]” (p. 343). This stipulation is exactly an inflow of factors into a host country’s comparatively advantaged industry, which is precisely of Kojima’s pro-trade type of factor mobility. Clearly Kojima’s model preceded Markusen’s by as many as ten years.

2.1. The Ricardo-HO hybrid model of comparative advantage

Ricardo built his doctrine of comparative advantage on the assumption that countries vary in technological levels (hence, with different labor productivities in industries) and use only one factor of production, labor. (Ricardo thus adopted the labor theory of value,
assuming that the cost/value of a good is determined solely by the amount of labor used to produce it). Therefore, the basis for comparative advantage derives from different productivity (technological) conditions. On the other hand, the HO theory assumes, on purpose, that countries have identical productivity conditions in each industry but are differently endowed with factor endowments (labor, capital, and land). It was thus intended to explain the basis for trade in terms of differences in relative factor endowments—hence, differences in relative factor prices. Actually, it is not necessary to keep separate these two versions of the theory of comparative advantage. They can be easily combined into a hybrid model—with differences in both productivity and factor endowments, since these differences are the concurrent co-determinants of trade in the real world.

Such a hybrid model was constructed in Kojima and Ozawa (1984). Because the article in which it was presented was written in such a way to sharply differentiate a macro-theoretic approach from a micro-theoretic one to explaining the behavior of MNCs, it received critical (though constructive) comments (Buckley, 1985; Gray, 1985). Nevertheless, a theoretical model itself stood unscathed—and still is instrumental in explaining the two opposing effects of the “pro-trade” and “anti-trade” types of FDI on a host country’s basis for trade. As illustrated in Figure 2, the unit isoquants of goods, X and Y, are shown. Good X is labor-intensive, while good Y is capital-intensive. The factor price ratio w/r (where w is the price of labor, and r is the price of capital) of country A (say, a relatively capital-abundant industrialized country) is indicated by line MN, to which good Y’s unit isoquant is tangent at point B and good X’s is tangent at point A, respectively. The unit costs of both goods X and Y are identical, since each is the same--OM when measured in terms of labor, or ON in terms of capital. Since country A’s overall factor-endowment ratio (K/L) line OFa is located between points A and B, it produces both goods at the existing factor price ratio.

*** FIGURE 2 ***

On the other hand, the factor price ratio of country B (say, a relatively labor-abundant developing country) is shown by line M’N’, to which the unit isoquant of good X is tangent at point a and that of good Y at point b. The fact that country B’s isoquants are both farther away from the origin than country A’s indicates less efficient production functions in country B. In other words, industrial knowledge in both industries is far superior in country A than in country B, reflecting the Ricardian basis for trade stemming from different productivity/technological levels between the two countries.

In addition, country B’s isoquant for good Y is farther out than that for good X, meaning that country B is relatively far less efficient in good Y (capital-intensive industry) relative to good X in terms of the use of industrial knowledge. This means that country B has absolute disadvantages in both goods Y and X but has a comparative advantage in good X (labor-intensive industry)—and that country A has absolute advantages in both goods but has a comparative advantage in good Y. Hence, the basis for trade exists for both countries.
If, country B’s production point of Y happens to be at b” on the same isoquant as is with country A’s industry Y, there is no difference in productivity/technological level between the countries concerned. In other words, we are thus back from the Ricardian world to the pure HO world where trade occurs because of differences in factor endowments alone.

Within the above framework for analysis, we can illustrate the pro-trade (vs. anti-trade) orientation of FDI. The pro-trade type of FDI (a knowledge inflow into a developing country’s comparatively advantaged labor-intensive industry X) will move production point a toward origin 0, say to point a’, making its X production function more efficient—as indicated by a pro-trade arrow. This will magnify/expand the basis for comparative advantage. On the other hand, the anti-trade type of FDI (a knowledge inflow into a developing country’s comparatively disadvantaged, capital-intensive industry) will move production point b toward origin 0, say to point b’, making its Y production function more efficient—as indicated by an anti-trade arrow. This will reduce the basis for trade, since comparatively disadvantaged (i.e., import-competing) industry Y becomes more productive, hence, more competitive, thereby decreasing imports.

As will be shown below in connection with Samuelson’s skepticism about free trade, pro-trade FDI that expands a host country’s export-competitive industry X may adversely affect its terms of trade, whereas anti-trade FDI may improve its terms of trade.

3. Ricardo’s View on Overseas Investment

When David Ricardo presented the doctrine of comparative advantage to explain a mutually beneficial exchange of goods between countries in his book, *Principles of Political Economy and Taxation* (1817), he also made a fascinating, though not widely known, observation about moving production across the borders. His doctrine is built on a technology (or productivity) gap, using an example of inter-industry trade in cloth and wine between England (absolutely disadvantaged in both goods) and Portugal (absolutely advantaged in both goods). Hence, the assumption of no cross-border technology transfers is crucial; otherwise the basis of trade would be destroyed. In this connection, he observed:

> It would undoubtedly be advantageous to the capitalists of England, and to the consumers in both countries, that under [the circumstances of higher labor productivity in Portugal] the wine and the cloth should both be made in Portugal, and therefore that the capital and labour of England employed in making cloth should be removed to Portugal for that purpose. (1817/1888: 77, emphasis added)

In modern economic parlance, Ricardo was saying that “the capitalists of England” should make an efficiency-seeking type of investment, since Portugal has a superior knowledge that made labor more productive than in England. Such an advantage is assumed to be not inherent in either labor or capital so that any labor and capital from any countries could equally become more productive once employed in Portugal. This is why
he reasoned: “the capital and labour of England employed in making cloth [i.e., England’s export industry] should be removed to Portugal,” as shown above.

However, this type of overseas investment and accompanying factor movement not only destroys the basis of trade (that is, there is no more cloth for England to export in exchange for wine) but also makes England languish, while Portugal alone flourish. To retain his model intact, therefore, Ricardo dismissed the possibility of overseas investment:

Experience, however, shows that the fancied or real insecurity of capital, when not under the immediate control of its owner, together with the natural disinclination which every man has to quit the country of his birth and connections and entrust himself, with all his habits fixed, in a strange government and new laws, check the emigration of capital. (pp. 77)

Here, it is worth noting that Ricardo was actually talking about the “costs of doing business abroad,” a key concept used by Hymer (1960/1976) who is credited for originating the father of the contemporary theory of FDI. Hymer specified that the firm-specific advantages must be greater than the costs of doing business abroad for an investing firm to be able to successfully operate overseas in competition with local firms.

What is most interesting here is, above all, that Ricardo’s argument is based squarely on absolute advantage, not on comparative advantage. It did not dawn on him that instead of English capitalists and workers moving to Portugal, the latter’s cloth industry should help improve productivity in the English cloth industry by investing and transferring superior technology (via FDI or licensing)—that is, through the pro-trade type of Portugal MNCs’ operations in England. In this way, the basis for comparative advantage would be reinforced, and both countries gain even more from trade (except Bhagwati’s extreme case of “immeserization” (1958) in which the worsened terms of trade was so substantial enough to make an exporting country worse off despite—or due to—its stepped-up exports.). It is thus rather surprising that Ricardo, the very originator of the doctrine of comparative advantage, failed to use the same logic to factor movement as he used for trade. When it comes to overseas investment, Ricardo’s mindset was apparently very similar to that of modern neoclassical economists (like Mundell and others) who treated overseas investment as a mere phenomenon of cross-border capital movement—that is, a case of perfect substitution (i.e., a case of anti-trade investment), as discussed above.

4. Samuelson’s Skepticism about the Long-Term Benefit of Free Trade for the United States under Globalization

Paul Samuelson (2004) questioned the long-held proposition that due to the laws of economics, the U.S. economy will benefit in the long run from free trade. It is widely believed, at least among mainstream economists, that free trade will make some gain and others suffer in the short term, but will bring a net positive benefit to the entire economy in the long run. In other words, the gains of the winners are always big enough to more
than compensate the losers. He argued, however, that “it is dead wrong about necessary surplus of winnings over losings.” (p.136)

Samuelson described a “hot issue” about globalization at the start of his article:

Most noneconomists are fearful when an emerging China or India, helped by their still low real wage rates, outsourcing and miracle export-led developments, cause layoffs from good American jobs. This is a hot issue now, and in the coming decade, it will not go away. Prominent and competent mainstream economists enter into the debate to educate and correct warm-hearted protestors who are against globalization. (p. 135)

In Samuelson’s view, those noneconomists are more discerning than the mainstream economists on this matter, and he proceeded to explain why this was so in terms of three scenarios/models: Act I (a), Act I (b), and Act II.

**Act I (a): How Free Trade Benefits Both Nations’ Real Per Capita Incomes Compared to Autarky**

Samuelson began with the assumption of an initial situation in which China has a comparative advantage in good 2 (more labor-using or labor-intensive) whereas the United States has a comparative advantage in good 1 (less labor-using), though the latter enjoys absolute advantages in both goods over China due to the United States’ superior labor productivity. Act I (a) is the pure Ricardo’s trade theory of comparative advantage with all its restrictive assumptions (including no cross-border factor movement and complete post-trade specialization in one good in each country) and illustrates how both nations’ GDP as well as per capita incomes increase from free trade—that is, a case of “the bounties from specialization and trade.” (p. 136)

Samuelson then observed that the percentage benefits for the two nations would be larger for China at the expense of a smaller U.S. gain, if China’s population declined relative to the United States’. This is simply because a decline in China’s labor force raises Chinese wages and their production cost—hence, the price of good 1 (U. S. import), while China’s demand for good 2 (U.S. export) decreases. Given the fact that China has been controlling its population growth under the one-child policy and that as a result, China’s labor force (aged 5 to 59 years old) began to drop for the first time by in 2012, Samuelson’s observation has an important implication for the U.S. economy and trade with China, since the United States has so far benefited greatly from its imports of labor-intensive manufactures from China.

**Act I (b): When China’s Technological Progress in Its Export Sector Must Raise U.S. Per Capita Real Income, But When It Might Lower China’s**

---

1 Printed in bold letters are all Samuelson’s own words.
In Act I (b), Samuelson argued that a technological progress in China’s export sector, good 2, will bring a benefit from free trade to the United States, whereas it will lower a gain for China. The reason is that such technological progress raises productivity in China’s export sector, resulting in a lower price of its export to the United States. Therefore, the latter can enjoy a much larger gain from trade, larger than the case of Act I (a). Consequently, U.S. per capital real income rises even further. On the other hand, if the price elasticity of demand for good 2 is less than one, the total export earnings will decline, thereby decreasing China’s total income, hence causing a decline in its per capita real income.

The above scenario can be better interpreted in terms of our model of pro-trade vs. anti-trade—and also what has actually happened after China’s open-door policy in 1978. Although China’s own autonomous technological progress or innovation in the export sector may occur, its phenomenal success in initiating export-driven growth owes greatly to foreign MNCs investment there. When China opened up for trade and FDI, many MNCs that were attracted by an abundance of low-wage labor invested mostly in China’s labor-intensive sector (i.e., good 2). These investments were exactly of the pro-trade type that brought in advanced management skills, modern technology, and access to export markets, thereby raising labor-productivity and expanding the output of that sector enormously.

This enabled China—or more precisely, those investing MNCs themselves—to export labor-intensive manufactures at much cheaper prices to the advanced world, especially to the United States and Europe, as China’s comparative advantage in such manufactures was reinforced by such inward FDI. The United States benefited from the cheaper imports, thereby raising its real income (i.e., a positive terms-of-trade effect). China, too, gained as its national product rose, and was able to earn and pile up foreign reserves, especially in U.S. dollars. China’s terms of trade deteriorated somewhat, but not enough to lower its real income.

**Act II: Proof that the United States Suffers Permanent Measurable Loss in Per Capita Real Income When China Enjoys Exogenous Productivity Gain in Good 1 Large Enough to Cut Some U.S. Production of It.**

According to Samuelson, Act II analysis “deals some weighty blows against economists’ oversimple complacencies about globalization” (p. 36-7), and examines a hypothetical situation in which, ceteris paribus, China’s technological progress occurs in good 1 (i.e., the U.S.’s comparatively advantaged industry). This leads to a worsening of the U.S. terms of trade, since China’s demand for U.S. exports of good 1 falls. The upshot is a decrease in U.S. real income in the wake of such an import-replacing type of technological progress in China.

China’s progress may be made autonomously but is more likely an outcome of FDI from the United States and other more advanced economies, as indicated by “exogenous productivity gain” in Samuelson’s own words. Now that China’s comparative advantage
in good 2 has begun to decline due to rising domestic wages, it strives to build up higher-productivity sectors (such as good 1) by way of import substitution. Moreover, China’s huge and rapidly growing home market puts itself in an ever-stronger bargaining position vis-à-vis foreign MNCs in forcing the latter to transfer superior technologies so long as they want to operate in higher-productivity industries. In fact, American MNCs are ever more actively making FDI in such industries in their efforts to capture China’s domestic markets by producing locally—instead of exporting from home. In other words, they are, either intentionally or unintentionally, helping China go through import substitution. Moreover, China itself has stepped up its own R&D to innovate in its still import-dependent sectors (like good 1). All this development weakens U.S. advantages in higher-productivity sectors, reduces jobs, and lowers wages at home. In other words, such FDI is, indeed, of the anti-trade type.


Samuelson’s analysis can thus be further elaborated on in terms of the pro-trade vs. anti-trade FDI model—and extended specifically to the current events involving China’s policy to make use of foreign MNCs as an instrument of industrial catch-up. China is now on the cusp of shifting away from the good-2 industry (namely, export-driven growth) and moving into higher-productivity, higher-wage industries (as illustrated by good 1)—that is, China is graduating from the phase of export-led industrialization to the next phase of domestic-consumption-led growth. And ironically, this is exactly what the United States demand China to do—ironically, because this shift means that China will double up on building consumer-oriented local industries such as automobiles, consumer electronics, and fast-food industry (which are of the good 1 type) by way of nurturing locally owned enterprises. And this new phase gives China a godsend chance to reclaim national ownership of industries by squeezing foreign MNCs in home markets, since it will no longer be so much dependent on exports (i.e., foreign markets) and now can let its own national firms take over its vast domestic markets for themselves. This new approach may be called a “foreign-brands substitution” strategy. And some early signs of this strategic refocus are already visible. The Wall Street Journal (April. 5, 2013) reported such a recent move:

Recent troubles in China for Apple Inc. and Volkswagen AG represent a growing risk for global companies, as their dependence on the booming Chinese economy leaves them exposed to Beijing’s shifting winds. In some cases, foreign companies are coming under withering attacks from state-run media. In others, they are running afoul of Chinese regulators or government policies, such as an anti-corruption campaign that limits ostentatious gifts.

… Mr. Xi [China’s new leader] also has pushed for the development of local auto brands, while a government-sponsored research organization questioned the popularity in China of smartphones that use Google Inc.’s Android mobile-operating software, saying China has become too reliant on Android phones. (P. B1, emphasis added)
It is clear that China’s recent motive to put pressure on the foreign MNCs operating there is double-faced— in the sense that its campaign for consumer protection and anti-corruption is combined with that for bolstering domestic national enterprises and brands.

Be that as it may, in order for the United States to retain the leadership it is, therefore, imperative to climb farther the ladder of growth by innovating new goods and industries. Yet these new sectors will be necessarily higher-tech and demand more skilled, higher-brain, talented workers. One serious question, then, still remains in the light of Samuelson’s observation: “…perhaps a third of Americans are not highly educated and not energetic enough to qualify for skilled professional jobs.” (Samuelson, p. 144) This required structural upgrading will consequently further widen an income gap, breed social discontents, and end up with ever-burgeoning government programs to help those left behind. In short, China’s new growth phase is likely to be a difficult one for the advanced world as well as for China itself as it pursue new development strategies.

5. Summing Up

The world structure of production and trade has vastly altered by the rise of MNCs in an era of globalization. International production (via MNCs’ overseas production) is now much larger in value and more critical in impacting the industrial structure and growth of the economies involved across the world than international trade. Most of all, MNCs are the innovators and disseminators of industrial knowledge, and nowadays they are arguably the key instrument of catch-up growth in emerging markets. Hence, MNCs’ investment activities which accompany transfers of industrial knowledge can affect the countries’ basis for, and pattern of, comparative advantage and their terms of trade—all in dynamic manners and often in unpredictable and unintended ways. In this context, the MNC-impacted model of comparative advantage explains how trade is affected—sometimes in a pro-trade fashion and other times in an anti-trade fashion, depending on whether MNCs’ investment takes place in a host country’s comparatively advantaged (both existing and potential) sector or in its comparatively disadvantaged sector.

In this regard, it is an irony that Ricardo failed to apply the same logic of comparative advantage to overseas investment as that he himself originated to show a case of mutually beneficial trade, even though one country is inferior in productivity across the tradable sector. He was probably right, however, in dismissing the importance of overseas investment, since in his day such a cross-border business activity was rather rare after all. And Samuelson’s skepticism about the long-term benefit of free trade with catching-up countries under globalization for the United States also can be clarified by the notion of anti-trade FDI.

Concerning the current U.S.-China economic relations, China is in the midst of graduating from the first phase of export-led catch-up growth (that is driven by MNCs’ pro-trade investments) to the next phase of domestic-consumption-based growth (that is facilitated by MNCs’ anti-trade investments). In fact, such a shift has lately been ironically encouraged by the United States—but without fully realizing that China’s new phase may turn out to be harmful to the United States (since more anti-trade FDI will be
induced through China’s new growth strategy in its domestic-market-focused industries, along the line of Samuelson’s Act II), even though China’s first growth phase has proved quite beneficial to the United State (since MNCs’ pro-trade FDI led to a better terms of trade for the U.S.). Furthermore, China apparently is moving to gradually squeeze out foreign MNCs’ operations in its efforts to nurture and nourish domestic brands, enterprises, and industries.

In short, as shown above, Kojima’s theory of pro-trade vs. anti-trade FDI is one of the most important contributions made by Japanese economists to the academic world of economics. And the purpose of this paper is to demonstrate how useful his theory is in explaining various economic issues, theoretical and real-world practical alike, in the global economy.
Figure 1. The Mundell vs. the Kojima model: Directions for capital flows

Comparatively advantaged, labor-intensive Y

Rybczynski-line, $R_K$
(Kojima model)

P

Rybczynski-line, $R_M$
(Mundell model)

Comparatively disadvantaged, capital-intensive X

Figure 2. A hybrid (Ricardo-HO) model of comparative advantage
References


