

# **Markets Globalization by Firms from Emerging Markets and Small countries: an Application of the Neoclassical Trade Model**

By

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## **Abstract**

The changes in globalization and the world of international business make it necessary to rethink the basic model of the economics of international business. For most of the second part of the 20<sup>th</sup> century international business was about how large companies in the developed countries increase their value via international business activities. Not surprisingly the research in the economics of international business from Caves, Kindleberger, and Hymer to Buckley and Casson, Dunning and many others was based on models of industrial organization. The world has changed and international business has become a two-way street where firms and governments from emerging markets and small countries are as active as the developed countries MNEs and their governments. In this paper the basic international trade model is used to gain insights of the new world of international business. In particular, a dynamic model of changing factor intensity and of creating local specific competitive and comparative advantages for firms and governments from emerging markets is presented and discussed.

Key words: economics of international business, international trade models, emerging markets

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## 1. Introduction

In a paper published in JIBS in 2004 Buckley and Ghauri argue that international business research succeeded when it responds to the need to answer a series of what they call "big questions" in the world economy. They proceed to say that such a "big question" is the changing strategy of multinational enterprises (MNEs) and the way it affects globalization and its geographical expression of through the location of the activities of MNEs. Buckley and Ghauri then review the literature linking ownership and location strategies to economic geography and theories of globalization to explore new areas of research in international business.

In this paper I follow Buckley and Ghauri in the basic premise that research in the economics of international business depends on defining a "big question" and applying an economic model to gain insights into possible answers to the question. This has been the way that research in the economics of international business developed from the beginning. The research in the economics of international business in the US has begun in the late 1950's with the question why do US firms like Ford Motor Company invest in acquiring companies outside the US and setting up manufacturing operations rather than exporting from the US. In order to answer this "big question" economists like Hymer, Kindleberger, Caves, and others have applied models of industrial organization that are still the basis of the economics of international business. The well-known internalization model of Buckley and Casson (1976) is another successful attempt to deal with the "big question" of globalization. Their internalization model is a discussion of the famous "horse race" between markets and organizations (firms) as conduits of international trade in goods, services, and factors of production.

The "big question" addressed in this paper is what is in what way do the process of globalization and the strategies of MNEs affect the dynamics of comparative advantage of small countries and emerging markets in the world, and what role do governments play in this process? The current crisis that has begun in 2008 with its substantial effects on many small countries and emerging markets has made this question even more critical.

Looking at the process of globalization from the point of view of small countries and emerging markets is different than looking at globalization from a developed country's point of view. The neoclassical model of international trade with the "small country" assumption, the emphasis on the competitive advantage of the firm as the basis for the comparative advantage of the country and the balance of payments as the measuring device seems to be a natural model for an inquiry of globalization from the point of view of small countries and emerging markets. The main reason that international trade and international business went in separate ways in economic research for many years is that research in international trade was base for the most part on the twin assumptions of a complete and a perfect market, and that the research in the economics of international business was based on imperfect competition. Recent studies like those of Antras and Helpman (2004, 2006) reflect a different world, a world of incomplete market and monopolistic competition, but these Antras and Helpman continue to look at the world from North to South, from the major developed world multinational enterprise to the suppliers in the emerging markets..

International trade models look at the country as the relevant unit for measurement and for policy decisions. This is expressed by focusing on the balance of payments and its components like the balance of trade as the main measuring devices for the impacts of corporate strategies in generating and implementing competitive advantages and the implications for the comparative advantage of the country. The balance of payments is defined as a list of all the transactions between the residents of one country and the residents of the rest of the world over a given period, usually a year. The current research in the economics of international business looks at governments as constraints in the value maximization of the multinational enterprise.

Using international trade models as the basis for research in the economics of international business is not just another way of looking at the issues of globalization. It refocuses the research on the country rather than on the company. In general the world can be described as a matrix of countries and companies. All the people in the world reside in one of the countries that comprise the world. All the people in the world receive cash flows that allow them to consume from one of the companies that together are generating the world production of all goods and services. Some people receive direct payments from companies like salaries; others receive payments or goods and services from those who receive direct payments. People act as if they maximize two objective functions; one as residents in a given country, and a second one as direct or indirect stakeholders in a firm or in a number of firms. (For a description and a discussion of this model see Agmon (2003)).

The international trade model gives researchers in the economics of international business an opportunity to take a fresh look in the issues of globalization and in the persistent role of the national state in this process. The globalization of firms and small countries and emerging markets is a dynamic process. The international trade model provides insights into the dynamics of comparative advantage and its implications on future changes in international business and globalization.

The nature of the international trade model as a vehicle to analyze the economics of international business is presented and examined in the second section. It is shown that the "small country assumption" of the neoclassical international trade model provides a non-centrist view of international business. This non-centrist view is appropriate for the analysis of globalization from the point of view of small countries and emerging markets.

Comparative advantage is what drives international trade, and factor intensity is what drives the comparative advantage. The combination of MNEs strategies and government policies do change factor intensity and comparative advantage and make comparative advantage a choice variable. Two models that deal with the dynamics of factor intensity and comparative advantage are presented and discussed in the third section of the paper. The first model is by Findlay (1973), and the second model is by Deardorff, (2004). Findlay was concerned with factor proportion and the dynamics of comparative advantage in the long run. His model is applied in section three to show how directed government policy can and do change the comparative advantage of a country. The experiences of countries like South Korea, Taiwan, and China prove this to be true.

Deardorff presents and discusses the concept of a local comparative advantage. The focus is on trading cost as the determining factor in the ability of firms to export a specific good to a specific market. Many forms of relationships between a MNE and firms in smaller countries can reduce trading cost for a combination of a good and a market and thus create a competitive advantage for a firm in one country vis-à-vis that combination. One can say that firms in emerging markets and in small countries utilize MNEs as a way to reduce trading costs in servicing particular markets. This is particularly relevant to these cases where trading costs are associated with trust.

Even the most plausible economic model needs empirical validation. A preliminary look at some data is provided in section four. This is done by using two published studies on China and one on IT strategies in Taiwan and the Republic of Korea. One study (Murray, Kotabe, and Zhou, 2005) is concerned with supplier-MNE relations and it is used as a preliminary exploration of a validation of the local comparative advantage model. The second study (JY Lin 2005) is concerned with the Chinese government policy in the period 1978-1990 and it is used to demonstrate the effectiveness of government policies that are aimed at changing factor intensity and the comparative advantage. The study on Korea and Taiwan ( JY Lin, 2000) deals with a comparison of the comparative advantage and the corporate globalization policies of Korea and Taiwan in the late 1990's.

Bringing international trade model to the economics of international business opens up a new research agenda both in terms of defining "big questions", and in terms of the models applied to phrase the questions, design the empirical tests, and provide answers and insights. A first stab in such an agenda is taken in the fifth and last section of the paper.

## **2. The international trade model as a paradigm for international business and globalization**

The neoclassical model of international trade is a model of a truly global world. This is so as in the neoclassical international trade model with the twin assumptions of a perfect market and a complete market there are no barriers to trade, no transactions cost of any kind, information is equally available to all the participants in the market and all countries are small relative to the world as a whole.. In such a world trade is governed by factor intensity in such a way that the total welfare (wealth) of the world is maximized. The location of production, the distribution of goods among the different countries, and the allocation of the resulting welfare are all determined in one global market. This is really the utmost of globalization.

Smith, Ricardo, Heckscher, and Ohlin knew very well that the real world in which they were very active as economists, business people, and politicians differs from the conceptual and abstract model that they have constructed. What they wanted to show is a direction towards lower barriers to trade, less transactions cost and higher mobility of goods, services, and factors of production. The processes of trade liberalization, the removal of exchange control, and the IT revolution contributed to a world that is closer to the ideal of free trade as it is presented in the neoclassical trade model. The rise of the multinational enterprise (MNE) as an important vehicle in the process of globalization was congruent with the general direction towards free movement of goods, services, and factors of production.

Yet, the neoclassical international trade model hardly plays a role in the development of the economics of international business. In a thoughtful paper Dunning (2000) summarizes and discusses the different aspects of the main approach to the economics of international business, what is known as the Eclectic Paradigm or the OLI model. Out of more than 150 references that spans many fields of economics as well as strategy, location theory and related fields there are only three references to international trade theory, (Hirsch 1976, Krugman 1993, and Markusen 1995). This is not surprising as the research in the economics of international business has begun as a way to explain the behavior of large firms in countries like the US and the UK and globalization came into the focus of the research later on.

Globalization is often accused as a ploy of big corporations in the large developed countries to rule the world. The common objective function in most of the studies on the economics of international business to maximize the value of the MNEs who are primarily big corporations from large countries lends credence to this claim. But globalization can be viewed also as a common effort of all the countries in the world to maximize the welfare of their residents while recognizing the fact that different groups of people, residents of certain countries, may have different preferences. The preferences may affect the dynamics of comparative advantage, and the dynamics of factor intensity, in various countries, and it will affect the patterns of trade over time. Conceptually, one can think on a world where there is a dynamic globalization process that changes the location and the nature of production towards very long-term market equilibrium. (Findlay (1973) discusses such a dynamic process).

This is clearly not a description of the real situation in the world. But it is a good opening step in a discussion of a globalization process that is the outcome of an interchange among a group of countries who are equal partner to the process even if their size, wealth, and political power differ. The markets of the world are not perfect and not complete. Many countries, particularly transitional economies and developing countries, but also small countries in general may not want to practice their comparative advantage as it is today. To paraphrase Findlay (1973) for the economist one comparative advantage is as good as any other, but for those who are engaged in the work that generates the comparative advantage there is a great difference whether the comparative advantage sends them to a hard work in a sugar cane field, or to an air-conditioned office in a city.

Two relevant extensions of the neoclassical international trade model are discussed in the next section. The first extension is based on a model presented and discussed by Findlay (1973) deals with the dynamics of factor intensity and with the comparative advantage as a choice variable. The second adjustment is based on the concept of a local comparative advantage introduced by Deardorff (2004).

The two extensions deal with the difference between the abstract, conceptual globalization of the neoclassical international trade model and the real process of globalization. The difference is that whereas in the neoclassical international trade model the "invisible hand" of the market, aided by the two assumptions of a perfect and a complete market, brings globalization, in real life globalization is the outcome of the national policies of governments and the corporate strategies of firms. The first extension of the international trade model deals with macro policy that generates changes in the factor proportion of a given country. The second adjustment deals with

the role of the interface between MNEs and domestic firms in generating competitive advantages for the domestic firms in peripheral countries. The two extensions taken together make the neoclassical international trade model an appropriate paradigm for today's globalization.

### **3. Bringing the neoclassical international trade model closer to reality: the dynamics of factor intensity and the contribution of MNEs to comparative advantage of firms in small countries.**

In a book published in 1973 Findlay introduced a simple but a powerful dynamic model that deals with what he defines as the difference between the "horizontal", static comparative advantage model where countries are forever "stuck" with their comparative advantage, and the "vertical", dynamic approach where countries are trying to attain a higher level comparative advantage. It is shown in the next section that this difference between the "horizontal" and the "vertical" model stands behind much of the analysis of the viability issue and the effectiveness of the development policy in China and in the transitional economies of Russia and eastern Europe as it is presented and discussed by Lin (2005).

The way that Findlay deals with the issue is by introducing one intermediate good that as it accumulates it changes the factor intensity and therefore the comparative advantage. The country and the residents (citizens) have the choice to maximize current consumption and stay with the current factor intensity and the current comparative advantage, or to give up some current consumption, accumulate the intermediate good and change the factor intensity and the comparative advantage later.

The model discussed by Findlay can be described as follows:

Assume an economy that produces three types of goods, X, Y, and Z. X and Y are consumer goods and Z is a capital good. Each of the three goods is produced by a combination of labor which is exogenously given and capital which is the stock of good Z available in the economy at the time of production. The production function is constant return to scale and the rate of growth of labor is fixed. Capital goods do not depreciate. X and Y are globally traded at a world price. The capital good Z is not traded internationally. The normal assumptions of the neoclassical international trade model of a perfect and complete market are maintained.

It follows that the equilibrium at the country in question can be described by the following system of equations:

$$\begin{aligned} a_{11}X + a_{12}Y + a_{13}Z &= L \\ a_{21}X + a_{22}Y + a_{23}Z &= K \\ -sX - sY + (1-s)Z &= 0 \end{aligned}$$

s is the average propensity to save in the economy. At equilibrium savings equal investment and investment is the output of Z. L and K are the initial endowments of labor and capital.

Given the average propensity to save,  $s$ , it is possible to compute the rate of growth of capital  $k$ . The rate of growth of capital following the production of good  $Z$ , and the rate of growth of labor will affect factor intensity  $F = L/K$ . The Heckscher-Ohlin theory requires that the demand for the consumer goods  $X$  and  $Y$  is independent of income and depends only on the relative price  $P_x/P_y$ . Let's denote the demand for goods  $X$  and  $Y$   $D_{xy}$ . The supply of  $X$  and  $Y$  by the country under investigation depends on its factor intensity,  $F$ , on the average propensity to save,  $s$ , and on the relative price of  $X$  and  $Y$ ,  $P_{xy}$ . Let's denote the supply function  $S_{xy}$ .

Findlay shows that whether the country has a comparative advantage in  $X$  or in  $Y$  depends on whether  $D_{xy}$  is greater than or less than  $S_{xy}$ . Since  $S_{xy}$  depends on  $F$ , and  $F$  may vary over time, the comparative advantage of the country may change. (The proofs are presented and discussed in Findlay (1973), pp. 134-138).

In a closed economy without a government  $s$  the average propensity to save is determined by the aggregate decisions of the households in the economy. In real life the savings rate and therefore the accumulation of capital and the resulted changes in factor proportion is affected by the decisions of the government and by capital imports. Governments can and do affect savings decisions and the average propensity to save by direct and indirect taxes.

The Findlay's model was written against the background of the development policy implemented by governments in developing countries in Latin America and elsewhere in the 1950's and the 1960's where the goal was to attain a comparative advantage based on physical capital intensity. Therefore, Findlay is discussing investment in capital good  $Z$  that changes the factor proportion towards capital in terms of the traditional Heckscher-Ohlin model.

As was pointed out in a recent paper by Dunning (2006) the world of international business moved away from the emphasis on physical capital to a focus on human capital. The way by which countries may move up in the hierarchy of globalization is by changing the factor proportion to a higher intensity of human capital. A higher intensity of human capital may lead to a more sophisticated competitive advantage in the corporate sector and a more sophisticated comparative advantage in the country. South Korea and Israel are two countries that went through a change in the competitive advantage of firms and the comparative advantage of the country by making an investment in human capital and a complimentary import of what is called in international economics a 'sector specific capital' . (For a discussion of the term 'sector specific capital' see Wong 1995). In both cases domestic firms had to sell their products and services in the global market. To see how the process of a change in the competitive advantage of domestic firms in small countries and emerging markets works and how it relates to changes in factor intensity and the creating a supporting environment consider the following simplified example based on the models of Findlay and of Dardorff.

Let assume that the two basic factors of production are unskilled labor,  $L$ , and  $L'$ , skilled labor. Assumed further that  $X$  and  $Y$  are two consumer goods where  $X$  is unskilled labor intensive and  $Y$  is skilled labor intensive. To put it in the context of international business and globalization, assume that  $X$  is OEM components in the electronics industry, and  $Y$  is R&D based products in the electronics industry. If the

initial factor proportion favors unskilled labor the competitive advantage of the firms and the comparative advantage if the country in the global electronics industry will be in the manufacturing of OEM components for large MNEs. This is done by forming corporations that act as suppliers of components based on unskilled labor to MNEs. In a static international trade model this may be a stable equilibrium solution. However, if the government of the country that provides the manufacturing services prefers a different role in the global system it can affect a change in the factor proportion. This is done by taxing its population by the rate that is equal to a propensity to save of  $s$ , and investing this amount in  $Z$ , education that creates human capital.

Moving resources from current consumption to future consumption through savings will have serious distributional effects, particularly if the savings of the unskilled labor is used to build up skilled labor in the future, and if the process of doing so takes a long time. It may take political will and political power to do so. The Korean experience is a clear case of the ability of directed government policy to change factor proportion by forcing a high rate of savings and an investment in education that creates human capital. The results are evident in the development of Korean firms in global industries like electronics and automobile industries. Israel is another example where public expenditure on defense has supported a change in factor intensity towards high skilled labor. This high skilled labor together with sector specific high-risk capital from the US created a new comparative advantage in the innovative technology (high-tech) industry for Israel. The new comparative advantage generates substantial growth in the last 15 years, but it also has created a sharp increase in income inequality. (For an analysis of this process see Agmon and Messica, 2008).

Government induced changes in factor proportion provide the opportunity, the potential for a change, what create the changes are actions by firms. The comparative advantage of a country is comprised of the competitive advantage of many firms within the country. The growth of many firms in small countries and in emerging markets depends on their ability to sell the products and their services in the global markets. The relevant price for these firms is not the cost of production in the domestic market, but the delivered cost of the good or the service in the target market. The difference between the domestic production cost the delivered cost at the target market is defined as the trading cost. Deardorff, 2004, based his definition of a local comparative advantage on the existence and the persistence of trading cost. He defines the concept as: "...the comparative advantage that a country may have relative to countries that are close to it, either geographically or in other ways that reduce the cost of trade", (Deardorff, 2004, p.7). Deardorff is interested in trade patterns among countries. In this paper the focus is on corporate policy, and in using the concept of local comparative advantage in the context of the way by which changes in factor proportions are implemented through the corporate sector as a part of the globalization process.

Trading cost is not just transportation cost. Often the most important component in the trading cost is intangible. In a global market where there are geographical, cultural, organizational, and political distances between the producer in the small country, the distribution and service providers in the way to the market, and the ultimate buyer it is very likely that trading cost represents primarily the lack of trust. The lack of trust may relate to the quality of the product or the service, either now or

in the future, to the ability to supply the product in an agreed upon way, and to the logistics of the supply.

Trust is a process. In the perfect market world of the neoclassical international trade model firms act on an instantaneous basis in an arm-length market. Strictly speaking in the perfect market economic model firms are organized at the beginning of the day and they are dissolved at the end of the day just to reorganize again at the beginning of a new day. Gibbons, 2000, has shown using Kreps' version of the Trust Game those long-term relations, a repeated game, are necessary to create mutually beneficial trust between two partners like a supplier and a distributor. The relations between MNEs and firms in a small country who act as their suppliers provide a long-term context in which trust can be built, and trading costs are minimized.

As it is demonstrated by Deardorff reducing trading cost can create trade where trade did not exist before, and a further decrease in trading cost can shift trade from one country to another. Choosing the partner and the form of relations may determine the competitive advantage of a firm in a small country or in an emerging market in terms of both the product (service) and the target market. Aggregating the decisions of many firms in the small country will determine the combination of goods and markets of the comparative advantage of the country. For example, the aggregate business policy decisions of a number of Taiwanese firms to focus on relations with US based IT companies as OEM suppliers determines the evolvement of a Taiwanese comparative advantage in supplying the US market with components for the IT industry.

Changes in factor intensity over time and the development of trust in the target markets may generate a significant change the competitive position of firms from small countries and from emerging markets. In recent years there have been a number of cases where the traditional North-South relations between a developed country MNE and emerging markets and small countries suppliers were reversed. This process is discussed in the following section.

#### **4. Reversing Headquarters-Suppliers Relations**

Most of the recent literature in international trade on the organization and the nature of international business assume a very clear direction North to South. Multinational enterprises (MNEs) from the developed countries are seeking to lower their production costs and therefore they are looking for suppliers in emerging markets. A good summary of this approach is provided by Helpman, (2006). This is also a common approach in the literature of the economics of international business. In a recent two articles Antras and Helpman (2004, 2006) have extended this approach to a world of incomplete market and imperfect competition by discussing the decision of a North final-goods producer to engage a South supplier in a world of explicit and implicit (imperfect) contracts. They show that the make-or-buy decisions of North companies as well as the sharing of the revenues from a joint operations with South suppliers are determined by a combination of the technology intensity in headquarter services owned by the North company and the degree of contractibility both in the markets for intermediate inputs in the South and for headquarter services in the North. Antras and Helpman assume that North MNEs have proprietary headquarter services. This was the case for most of the second half of the 20<sup>th</sup> century. But as time proceeds

other organizations competed with North MNEs in providing some or all of the headquarter services. A case in point is the rapid development of private equity funds that looked for investment in emerging markets.

Since the beginning of the 21<sup>st</sup> century investments by private equity funds in emerging markets, primarily buy-out funds have increased tremendously. In 2001 total private equity funds investment amounts to about \$3B. In 2007 investment by private equity funds in emerging markets have risen to about \$70B. Some of this investment was in response to a reversal process by which suppliers of intermediate inputs from emerging markets, primarily from China and India. In order to become global competitors firms from emerging markets need to control headquarter services that were supplied in the past by the North based MNEs. One of the most well-known examples is the effort of Lenovo in China to become a global competitor in personal computers, an effort that was aided by an investment by a group of US based private equity funds. A much smaller and hardly known example is an investment by 3i, a large UK private equity fund in a Chinese chain of Mongolian Hotpot called "Little Sheep". In that case 3i provided the Chinese fast food company with tangible and intangible services that helped "Little Sheep" to become a regional competitors funded in the Hong Kong stock exchange.

Using the same basic model presented and discussed by Antras and Helpman but adding a dynamic dimension it is shown below how a supplier of intermediate inputs from an emerging market will use earlier investment and developed capability plus the financial and the intellectual resources of private equity funds to become a global competitor by acquiring the control of headquarter services owned before by developed countries firms. This reversal is an important new element in the economics of international business. It is easier to understand this process in a world of international trade where firms act on their current and expected factor intensity in generating their competitive advantage, rather than in the industrial organization world where a small group of large companies (North MNEs) control the market..

The discussion begins with the model presented in Antras and Helpman, (2006, p. 5, but the direction is reversed. The question is how a South supplier becomes an integrative final-goods producer that controls both the headquarters services and the production of intermediate inputs. Much of what has happened in the emerging markets since 2000 suggests that this is a relevant question. The process can be described as follows:

1. A supplier in the South is engaged in a contract to supply intermediate inputs to a final-goods producer in the north. The supplier receives a fraction  $B_m$  of the revenues generated by the final goods producer.
2. The position of the supplier (receiving  $B_m$ ) is threatening over time.
3. The supplier chooses whether to continue with the contract or to try and become a final goods producer, (a global competitor). To do that the supplier needs to acquire headquarter services. That is the supplier has to change its factor intensity. The change in the firm's factor intensity is made in two ways; first, the existing factors of production are upgraded by investing resources in the change process. Second, the necessary complimentary factors, (e.g. headquarter services) are acquired from the outside.

4. If the supplier decides to become a final goods producer he chooses an organizational form; the supplier can either outsource headquarters services, or it can integrate headquarters services by acquiring control of a final goods producer.
5. The decision of the supplier to become a final-goods producer of the branded goods, in addition to continue as a manufacturer of intermediate inputs, is motivated by two factors; first, as the institutional setting in the emerging market and corporate governance are improving and the share of contractible activities in the production of intermediate inputs is increasing and as a result the share of the supplier in the revenues is declining. Second, the changes in the environment attract investment and make it possible to the supplier to raise the necessary resources to outsource or otherwise acquire headquarters services. In most emerging markets such strategies are aided by the government through favorable taxation or other means. The tremendous increase in private equity investment in emerging market, from around \$3B in 2001 to around \$70B in 2007 is a testimony for the available resources for such a step. (The crisis of 2008-2009 has slowed down the process but it does not change the long term trend).
6. In the process of becoming a supplier to a producer of branded final-goods the supplier is investing in non-contractible activities (see Helpman and Antras 2006). The level and the nature of the investment is an independent decision of the supplier. In the Antras-Helpman model the investment decision of the supplier is determined by a one-period maximization of the supplier in competing for the contract offered by the final-goods producer. It is more congruent with the approach discussed here to look at the investment in non-contractible activities by the supplier as a strategic long-term investment that is motivated by a dynamic consideration by the supplier.

The above is a firm-oriented micro view of the same process discussed in section 3 above. Findlay discusses changes in factor intensity as a result of government policy. The above discussion described a similar change process but from the point of view of a company. As a change in a comparative advantage is composed of changes in the competitive advantages of many firms, and the decisions of the firms are affected by government policies in their countries it is useful to look both at the macro and the micro aspects of the problem.

## **5. Globalization strategies of governments and firms in small countries: an international trade perspective**

In a series of papers Lin (2000, 2003, 2005) have discusses development economics and international trade in China in other countries in Asia like South Korea and

Taiwan, and in transitional economies in general. In the first part of this section I use Lin's studies to demonstrate the role of the government in emerging countries and in small countries in the process of changing factor intensity as a way to promote desirable globalization. Lin's analysis is congruent with the implications of the Findlay's model of the dynamics of the comparative advantage in small countries presented in section three above.

The main argument of Lin is that countries cannot exceed in their development policy some given rate and pattern of change in their comparative advantage, and that this pattern and rate of change is determined by physical and human capital accumulation. In this regard Lin follows the model developed by Findlay. The main concept developed by Lin is that of viability. In the neoclassical international trade model with a perfect and complete market all firms are viable. Rational investors with full information will not support non-viable firms. At equilibrium all firms earn the risk adjusted market rate of return. This is not the case in many emerging markets and in small countries. To quote Lin (2005): "Many firms in transitional economies and developing countries are not viable, i.e., they cannot earn acceptable profits in an open, competitive market even though their management is normal. The non-viability of these firms arises from the fact that the sector in which the firm operates, the products it produces, and the technology the firm uses in production are inconsistent with the economy's comparative advantage as determined by the factor endowment structure, namely the relative abundances of labor, capital, and natural resources". (Lin, 2005, p. 243).

As an international trade and a development economist Lin focuses on the macro dimension and the current factor proportion and the comparative advantage of the country. Still, he begins the analysis with the viability of the firm in the small country. If one combines the dynamic process by which governments are attempting to change the factor proportion and create a more appropriate factor endowment structure given their preferences, and the business strategies of firms in the small countries vis-à-vis MNEs and other firms in the developed countries it is possible to get a dynamic process that over time will make non-viable firms into viable business organizations and will move the country from one vector of comparative advantages to another, preferred one.

To see how the macro policy of the government and the business policy of domestic firms in small country and the interface between the domestic policies and the world of international business create a strategy of globalization for small country we can examine another study by Lin (2000). This study is concerned with the way by which China may develop an IT industry, but in doing so Lin provides an interesting comparison of the IT development strategies of South Korea and of Taiwan regarding the IT industry in the late 1990's.

Lin compares the business policies of Taiwan Semiconductors Manufacturing Company (TSMC) with that of Samsung Electronics. The data for 1997 is presented in Table One below.

**Table One**  
**A Comparison between TSMC and Samsung Electronics, 1997**  
**(Billions of USD)**

	<b>TSMC</b>	<b>Samsung Electronics</b>
Turnover	1.5	15.3
Gross Profits	0.7	4.8
Net Income	0.6	0.1
Total Assets	3.6	16.1
Net Earnings/ Total Assets	16.5%	0.6%
R&D Expenditure	0	1.0

Source: Lin, 2000

The above brief comparison is illustrative and it highlights two different development (globalization) strategies. At the end of the 1990's South Korea and Taiwan were of a similar size in terms of factor endowment. Both countries are also similar in the close relationship between the government and the industrial sector. Taiwan opted for a conservative globalization policy based on accumulation of capital from the profits of its own industries, (domestic savings in terms of the Findlay's model discussed above). This macro policy was implemented by the corporate business policy of firms like TSMC. TSMC has stated in its charter that the firm will not engage in its own R&D. Moreover, to reduce trading cost it transferred most of the sales and management cost to developed countries MNEs by operating as an OEM supplier to the likes of Intel in the US. The result of this was a very small difference between the Gross Profits and Net Income, and a high Net earnings/Total Assets ratio of 16.5%.

The government of South Korea and Samsung Electronics chose a very different globalization strategy. Rather than joining the developed countries MNEs the way that Taiwan and TSMC did in the late 1990's they opted to compete in the global world by creating Korean MNEs. Such a change could not be supported by domestic investment alone. The gap between the rate of change in factor intensity that is congruent with local savings (investment) and the target rate of capital accumulation was closed by capital imports. The capital imports on the macro level as it was evident from the balance of payments data of South Korea during this period was echoed by the capital structure of Korean MNEs like Samsung Electronics. The extremely high debt/equity ratio of Samsung Electronics of 223% in 1997 was typical for Korean MNEs.

Unlike TSMC Samsung Electronics has invested 1.0 billion USD in its own R&D in 1997, as well as a substantial amount of money in sales and management expenditures. Almost all the gross profits of close to 5 billions USD were spent on R&D, interest costs, and sales and management expenditures. As was demonstrated by the Asian financial crisis at the end of the 1990's the Korean globalization policy was more risky than that of Taiwan. This in itself does not mean that the Taiwanese

globalization was better in any sense. To analyze the globalization policies of Taiwan and of South Korea it is necessary first to agree what "better" means which is an issue of income distribution and welfare and not just a question of stock market value of Taiwanese and Korean companies. Samsung Electronics' policy of a large investment in R&D and in marketing and management service may have contributed much to stakeholders of the company like skilled labor, suppliers, and others in addition to possible externalities to the Korean economy. However, this issue is not discussed in this paper. The issue here is to show that the paradigm of the neoclassical international trade model, in particular the dynamic model of changes in factor intensity and the resulting changes in comparative advantage is useful as a paradigm for globalization processes.

The comparison of the strategies of TSMC and Samsung Electronics in 1997 and the implicit macro policies of the Taiwanese and the Korean governments as it is reflected in the business strategies of these two companies illustrate this point.

Lin's studies are an example of how international trade and development economists deal with what researchers in the economics of international business see as issues of globalization. The study by Murray, Kotabe, and Zhou (2005) is an example how researchers in strategy of international business are dealing with issues of development and international trade in emerging markets.

Murray, Kotabe, and Zhou (MKZ) begins their study with the following statement: "Many firms are consolidating their supplier base and developing strategic alliances with key suppliers to achieve strategic goals that range from cost and risk reduction to new skills of knowledge acquisition....Alliances are expected to create more value than 'go-it-alone' approaches, especially when the capabilities of the partners are combined in such a way that the competitive advantage of either the alliance or one or more of the partners is improved". (MKZ, 2005, p.187).

Two points are in order here. First, one of the main features of the neoclassical international trade model is that there are two equal sides for each transaction. For every exporter there is an importer. A transaction in the trade balance is always balanced by another transaction in either the trade or the capital account. It follows that a way to rephrase the statement by MKZ that many firms, (MNEs and other corporations in developed countries), are developing alliances with firms in China is that many Chinese firms are forming alliances with MNEs and other corporations in the developed countries. It is not obvious who is choosing who, and in the context of the international trade model it does not make any difference. Second, connection between a Chinese firm and a developed country MNE, particularly where the former supplies the distribution and marketing system of the latter is an expression of the concept of local comparative advantage discussed in section three above.

MKZ study was conducted by collecting data from foreign multinational firms from the US, Japan, and Western Europe operating in China. Data collection was limited to manufacturing companies in the following industries (based on classifications used in China): ordinary machinery, special purpose equipment, transport equipment, electric equipment and electronic and telecommunications equipment, instruments and meters, cultural and office machinery. MKZ presents the problem as a choice of partners for strategic alliance in manufacturing (SA) by the MNEs from the developed country,

and this is certainly one side of the problem. But as Lin (2005) has pointed out: "The comparative advantage of Eastern China lies in manufacturing industries...since the reforms (in China) begun; the eastern region has made huge progress in the development of manufacturing industries". (Lin, op.cit. p.257). Lin looks at the progress of the Chinese SA partners of the foreign MNEs from the developed countries as an outcome of the reforms and the change process of factor endowments in China.

The Chinese reform expresses itself by forming viable Chinese manufacturing firms in the industries mentioned above, industries in which Eastern China has a comparative advantage. MKZ look at the same process as a strategy of resource complementarity and resource dependence for MNEs from developed countries. The international trade model makes it possible to see the complete picture where the interests of MNEs from developed countries, the developed countries themselves, small countries, and firms from the small countries interact. A necessary condition for the process described and discussed by MKZ was the reform implemented by the Chinese government, (the macro condition), the sufficient condition on top of this was the interface of the business strategies of MNEs from developed countries and Chinese manufacturing firms.

The MKZ study shows that a major way of interacting is through the generation of a local comparative advantage for the small country firms by SA sourcing of major components. This is also congruent with the Chinese concept of globalization which is closer to the Taiwanese TSMC model than that of ROK and Samsung Electronics. As it is clear from the international trade model equilibrium is accomplished only when both the demand for the trading cost reducing services of MNEs from developed countries is equal to the supply of such services. In the tradition of the international model the same process can be presented as the demand for SA sourcing services of domestic firms in China by MNEs from developed countries and the supply of such services by Chinese firms.

The main findings of MKZ that product differentiation, (CR (composite reliability) = 0.94 and AVE (average variance extracted) = 0.84), and market performance, (CR=0.87, and AVE=0.77), are congruent with the proposition that domestic firms in China are looking for those partners who can help them generating and maintaining local comparative advantage in the particular components that they are manufacturing and the markets that the MNEs provide for these components.

## **5. Concluding remarks and a research agenda**

International trade and international business are closely related. The transition from arm-length exports of a commodity, or a natural resource, to the more complex trade in components, technologies, and processes within and between alliances of firms in different countries is typical to many emerging markets and small countries. (For an earlier study on this issue see Aggarwal and Agmon, 1990).

One would expect to see much work within the economics of international business and globalization relating to the general framework of the neoclassical international

trade model. This did not happen much for two main reasons. First, historically the research in the economics of international business grew out of industrial organization and the focus was on large companies in large countries. The use of the term "internalization" as a key concept in international business research is an indication to the prime role of large corporations, particularly multinational enterprises as the focal point of the research. The MNE is the object and countries, particularly emerging markets and small countries are the subjects. The second reason is that even after the introduction of elements of imperfect competition to international trade by trade economists like Grossman, Helpman, and Krugman, the major thrust in the research in international trade was on countries and their patterns of trade rather than on the interface between firms and countries in the process of changes in the comparative advantage (The studies by Lin referred to above are an exception).

Yet, the interface between firms from small countries, (small in the sense of the international trade model), MNEs from developed countries, and the governments of the small and the large countries is what real globalization is all about. This paper has examined this issue in the framework of the neoclassical international trade model adjusted for changes in factor proportions introduced by governments and adopted through the interface between MNEs and domestic firms in the small countries.

The analysis presented in this paper opens up new avenues for research in globalization processes. There are two important issues. First, what are the implications of a successful implementation of a new comparative advantage in a given country on the stability over time of the relations between firms from this country and MNEs from developed countries? Does the success of Chinese firms in providing manufacturing services to foreign companies from the US, Japan, and Western Europe through outsourcing and other ways mean that they continue to do so, or does it mean that given the success the Chinese government and the Chinese firms they will move up in the hierarchy of comparative advantage and will take over the design, marketing, R&D and other high value added functions from their former partners? The second issue has to do with the nature of foreign direct investment. The process of moving the production locations away from the main markets create trade deficits in these markets, (and exports surpluses in the countries where the production takes place). The identity of the balance of payments means that trade deficit equals capital account surplus. Is this going to bring financial foreign direct investments (FFDI) as the new version of the foreign direct investment in the 21<sup>st</sup> century? Are the new developed countries MNEs going to be financial institutions? Data released by the Emerging Markets Private Equity Association (EMPEA) in April 2009 shows a continuing increase in private equity funds raised in the developed countries for investment in emerging markets, (this trend is likely to reverse itself in the crisis year of 2009). How this development changes the nature of research in international business?

These and other related issues call for conceptual as well as empirical research. In addressing these issues the research in the economics of international business can make a real contribution to our understanding of the current and future nature of globalization. As a positive side effect such research brings international trade and international business economics models together as they should be.

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