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**A Theory of Trade Evolution:  
Applying the *Flying Geese* and *Investment Frontier* Models of industry development to  
international higher education**

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## **A Theory of Trade Evolution: Applying the *Flying Geese* and *Investment Frontier* Models of industry development to international higher**

Historically, institutions of higher education (HEIs) are rooted in the provision of a public good, namely, laying and safeguarding the moral and intellectual foundations of human society. This interpretation communicates a sense of inviolability: the institution decreed as a bastion of intellectual freedom, the unhindered pursuit of knowledge its sole charge. However, HEIs also play a role in the social and economic development of our societies and are thus subject to a degree of economic calculus. Some would argue that the slightest exposure of higher education systems to economic rationales can pervert the tenor of open intellectual discourse. This could consequently lead to misguided research and a waning commitment to the fundamental mission to train and cultivate inquiring minds. However, HEIs suffer from an internal contradiction that vitiates a more liberal and arguably nobler agenda to educate for education's sake. To be sure, HEIs have changed a great deal in the course of the past century: they have transgressed national boundaries and ultimately reinvented themselves and their methods of delivery within and across borders and this for a number of reasons. This paper will seek to describe the evolution of cross-border education in terms of a commodity that is internationally purchased and sold, welcomed and eschewed by governments. Education proves to be a commodity that is perpetually being reinvented to remain efficient and palatable to an ever changing sea of consumers. The history of this evolution is most succinctly captured by the *Flying Geese* and *Investment Frontier* models.

### **(a) Education as a Tradeable Commodity**

In 1995, the tripartite fusion of the General Agreement on Trade and Tariffs (GATT), the General Agreement on Trade in Services (GATS) and the Trade-Related Aspects of Intellectual Property Rights (TRIPS) culminated in the establishment of the World Trade Organization (WTO). Under the GATS education services are earmarked as a service sector to be liberalized, whereby each member country “shall enter into successive rounds of negotiations, beginning not

later than five years from the date of entry into force of the WTO Agreement and periodically thereafter, with a view to achieving a progressively higher level of liberalization” (WTO 1994). Consequently, academics (Knight 2006; Vlk 2006; Robertson 2006; among others), politicians and civil society representatives have struggled with the redefinition of education as a tradeable service commodity.

The debate is particularly relevant in the Asia-Pacific region, where intra-regional student flows and consumption of higher education services have increased significantly. These increases are not a chance happening; rather, they are the result of carefully directed strategies seeking to internationalize higher education institutions (HEIs). Often, these new strategies are disproportionately focused on the financial gain and institutional prestige associated with a large international student body, and are hence presented as antithetical to education’s original function. Nevertheless, globalization, increased human migratory flows and rapid advances in the information communication industry have made the promulgation of higher education services a lucrative industry. Vlk notes that “during the last years cultural, political, and academic approaches to international higher education have been increasingly replaced by an economic rationale” (Vlk 2006, 31).

The GATS has been the *de jure* framework used to define the international trade in education services since 1995, at the multilateral level. The supply of a service, as defined under the GATS, can be undertaken in one of four modes of delivery. In figure 1, we find that Jane Knight (2006) clearly illustrates not only the four modes of service delivery, but also their relevance to the education service industry. Briefly overviewed, Mode 1 service delivery entails providing a service across national borders, whereby both the provider and the consumer do not move to consume the service; Mode 2 service delivery entails the consumer moving to the provider’s country to consume the service; Mode 3 service delivery entails a provider establishing a

physical presence in the consumer’s country, for the purposes of providing a service; and Mode 4 service delivery entails the temporary mobility of natural persons in the provision of a service in the consumer’s country. For the purposes of this paper, we will be specifically highlighting the industry developments as they pertain to Mode 1, Mode 2 and Mode 3 service delivery.

The increasing attractiveness of Bilateral Free Trade Agreements (BFTAs) has permeated the rationale of policy makers and politicians overlooking the internationalization of their higher education industries, as well. A more recent example of this is the Singapore Agreement Free Trade Agreement (SAFTA). Therein, both Australia and Singapore have made commitments to liberalize their higher education industries. This is significant for a number of reasons.

<b>Mode of Supply</b>	<b>Explanation</b>	<b>Examples</b>	<b>Potential Market</b>
<b>1. Cross-border Supply</b>	The provision of a service where the service crosses the border (excludes the physical movement of the consumer)	<ul style="list-style-type: none"> <li>– distance learning</li> <li>– e-learning</li> <li>– virtual universities</li> </ul>	<ul style="list-style-type: none"> <li>– currently a relatively small market</li> <li>– seen to have great potential through the use of new information and communication technologies (ICTs) and especially the Internet, but difficult to monitor quality</li> </ul>
<b>2. Consumption Abroad</b>	The provision of a service where the consumer moves to the country of the supplier	<ul style="list-style-type: none"> <li>– students who go to another country to study</li> </ul>	<ul style="list-style-type: none"> <li>– currently represents the largest share of the global market for education services and is growing</li> </ul>
<b>3. Commercial Presence</b>	The provision of a service where the provider establishes, or has presence in, commercial facilities in another country in order to render service	<ul style="list-style-type: none"> <li>– local branch or satellite campuses</li> <li>– twinning partnerships</li> <li>– franchising arrangements with local institutions</li> </ul>	<ul style="list-style-type: none"> <li>– increasing interest and strong potential for future growth</li> <li>– most controversial because it appears to set international rules on foreign investment</li> </ul>
<b>4. Presence of Natural Persons</b>	The provision of a service where people travel to another country on a temporary basis to provide the service	<ul style="list-style-type: none"> <li>– professors, teachers, researchers working abroad</li> </ul>	<ul style="list-style-type: none"> <li>– potentially a strong market, given the emphasis on mobility of professionals</li> </ul>

Figure 1. Four modes of service delivery under the GATS from Knight (2006).<sup>1</sup>

<sup>1</sup> Source: (Knight 2006, 32).

Firstly, the SAFTA agreement is a negative list agreement, meaning that service sectors included in the agreement are fully subject to liberalization, except where specific reservations have been made. This is in contrast to the WTO/GATS positive list-style agreements, whereby countries remained unbound from any liberalizing sector of trade until they specifically propose a schedule of commitments. Negative-list BFTAs assume both a greater degree of flexibility and liberalization between the partner countries – operating as ‘GATS-plus’ agreements. Secondly, the SAFTA represents one instance when higher education has been included as part of a BFTA. This signals a shift in the approach to internationalizing higher education and industry development strategies. This is consistent with the goal of refining the competitiveness of higher education offerings, in line with diversification and export-led strategies in other sectors of trade.

Broadly overviewed, completed bilateral FTAs in the Asia region, which include education as a service sub-sector, as of 2005 include: Singapore-New Zealand (2001), Japan-Singapore (2002), Singapore-Australia (2003), China-Hong Kong (2003) (Lee 2005, 12). However, as Aggarwal suggests, “from both a political and an economic standpoint, efforts to explain the origin, evolution, and impact of bilateralism are in their infancy” (Aggarwal and Urata 2006, 8). While increasing in number, these types are largely new and it is difficult to assess their impact on the trade in educational services in the region. Instead, this paper shall focus on more accessible data and explain developments in the education service industry using models put forth first by Akamatsu, later redefined and expanded upon by Kojima (2000).

### **(b) “Flying Geese” and the Kojima Models of Industry Development**

First Akamatsu (1930) and subsequently Kojima (1994, 1995, 2000), offered captivating explanations for the rapid development of industry and the concomitant rise in capital which was witnessed in Asia throughout the last half-century, specifically since the 1980s in East and

Southeast Asia. The strategic modernization of the higher education industry, combined with the changes in international student mobility and program delivery, can be understood as signs of a maturing service industry. With this in mind, this paper looks into the applicability of Akamatsu's 'Flying Geese' (FG) model of industry development and whether it can capture the pattern of development in higher education service industries in Asia.

Originally introduced under the name "*Ganko-Keitai*" by Professor Emeritus Akamatsu Kaname in his 1935 and 1937 studies, the FG development model captured in a succinct fashion the growth of the manufacturing industries in developing countries (Kojima 2000, 377). Based on a catch-up pattern of industrialization spurred on by Foreign Direct Investment (FDI) from capital-rich developed countries and export-led trade policies, domestic production and export sectors in targeted developing countries flourished. The sequential pattern of development is explained as follows: (i) developing countries enter the world economy as primary commodity exporters and importers of manufactured goods; (ii) after an initial set-up time lag, the importing country begins to reproduce, on a small scale, a product similar to that which is being imported, and sells it primarily in its domestic market for home consumption; (iii) eventually, the need to import the product diminishes – the import substitution stage - and in its wake a shift in industrial priorities necessitates the import of heavy machinery from developed nations as the production levels increase with a concomitant rise in domestic consumer demand; (iv) an economy of scale emerges from the within the developing country as it specializes and refines the production of the manufactured good; (v) as production output increases, export-led growth of the newly manufactured good replaces the primary commodity export market in part or in whole. When this final shift occurs, the developing country aims to export its product in one of two ways: (i) as a refined and value-added product back to the initial developed country (reverse-export); or (ii) to new markets in lesser developed countries. The process of propagating

technology, know-how and manufactured goods creates a pattern not dissimilar to a flock of geese flying in a V-formation (see Figure 2).

Based on Kojima's (2000) succinct description of the above schematic, we observe the following four stages of sequential development in the FG model: (i) beginning from point  $t_1$  to point  $t_2$  the  $m$  curve indicates the rise in imports of manufactured goods from developed country A to the developing country; (ii) subsequently, curve  $p$  indicates that domestic demand reaches a point whereby profitable production of the good is viable and desirable, outpacing levels of import; (iii) at this stage,  $t_3$ , it becomes possible to not only provide the domestic market with the good through mass manufacturing, but an export-led policy approach,

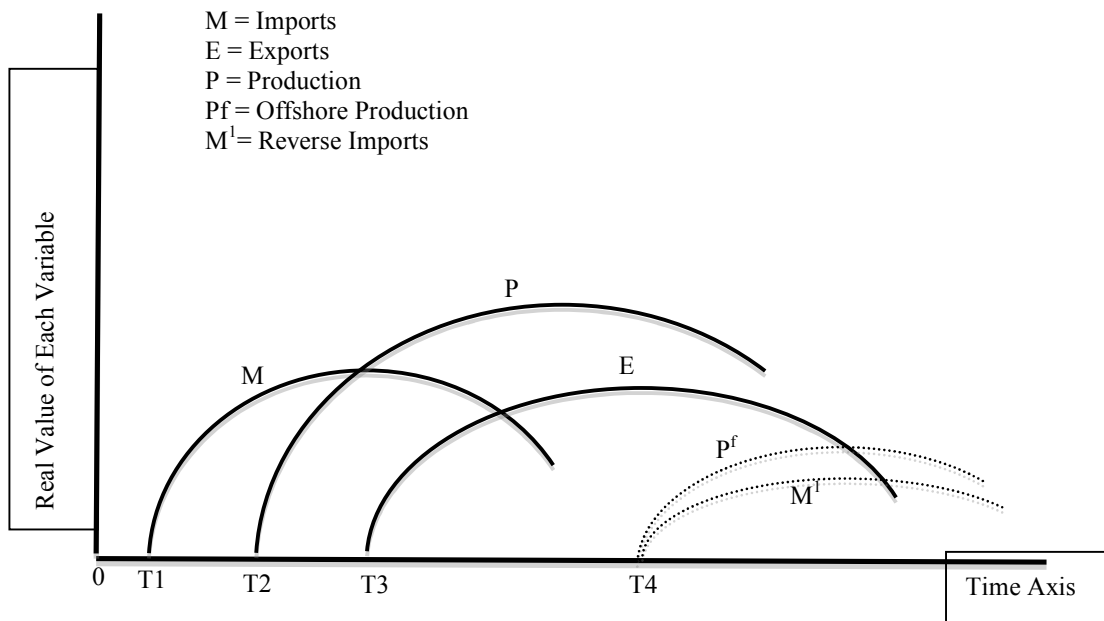


Figure 2. Adapted from Akamatsu (1950) schematic of the FG development model.<sup>2</sup>

curve E, can now be adopted; (iv) at  $t_4$ , the process is repeated in a foreign export market, where country A now acts as the exporter of the manufactured good and the new developing

<sup>2</sup> In Kojima 2000, 378.

country begins the process from again from point  $t_4$  (Kojima 2000, 379). The FG model describes the development from an economy reliant on the import of manufactured goods, to one that can develop its own manufacturing industry, becoming an eventual supplier of these very same goods by way of capital and technological transfers.

Kojima makes several additions to this model in such a way that the FDI aspects of technological and capital transfer, product specialization and reverse export – called the ‘boomerang effect’ by Hitotsubashi University Professor Emeritus Shinohara Miyohei (Kojima 2000, 391) - are better elucidated.

Kojima puts forth a model known as the “Investment Frontier” (IF) (Kojima 2000, 385) to explain the horizontal shifts (time) and vertical shifts (country) in FDI export and influence. Building on the FG model, this model captures the elements of capital and technological transfers as well as the boomerang effect of reverse-exports. Figure 3, shows how a lead country will develop its industry horizontally over time. During this development it influences a second ‘following-country’ by way of exports and FDI – in this case the NIE countries (Newly Industrializing Economies). Over time, the lead country will continue to exert some amount of influence throughout the chain, while following-countries take the role of lead geese influencing countries that are trailing them – see diagram ASEAN 4 and China. As the more rapidly developing countries refine their products and industries by way of specialization, they begin to compete in new segments of industry, arising from their newly acquired comparative advantage.

The pattern of reverse export is also observable in Kojima’s IF schematic. Eventually, the following-countries began to specialize and move toward an export-led industry, as well. As they do, they too begin to encroach on the incipient markets established by lead-countries.



This model will be particularly pertinent in the analysis of institutional mobility and education internationalization rationales not only in Asia, but globally as well.

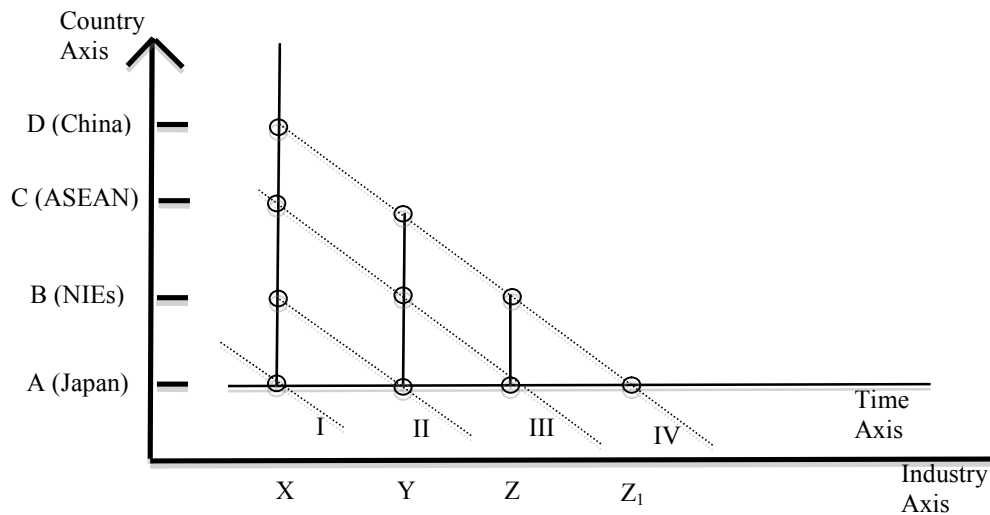


Figure 3. Kojima's Investment Frontier Model<sup>3</sup>

While the potential for competition, friction and dispute is clear in the elaboration of such frameworks, Kojima suggests that countries would be best off if they pursued a policy of 'agreed specialization'; he notes,

There are a number of ways in which such agreed specialization can emerge, either explicitly or de facto within a regionally integrated group, because the integration assures mutual liberalization of trade and investment. (Kojima 2000, 387)

The pursuit of agreed specialization echoes the approach of classical economics to balancing terms of trade. Both countries in this scenario would benefit by maximizing the use of local factor endowments in response to global demand, thereby reducing unit costs and increasing profits. As we shall soon see, in the education service industry, this agreed specialization takes the form of collaborative ventures and joint-institutional offerings.

### (c) The Asian and World Markets

<sup>3</sup> Source: (Kojima 2000, 382).

For the purposes of this analysis, contrasts and comparisons of data and industry evolution in Singapore, Malaysia, Japan, Australia, the United Kingdom and the United States are used. Of particular interest, is the sequential industry development which we observe beginning in the West, developing and consolidating in the East (Asia), and shifting slowly towards Africa.

It is necessary to highlight the internationalization policies of the aforementioned countries and their current positioning in the global education services market. Singapore, has declared in any number of statements that it is focused and determined to become Asia's leading edu-hub – as have many other countries. Government officials from Singapore estimate that education services will come to generate about 5 per cent of gross domestic product in the next decade, a rise of 1.4 per cent from its current value (Reuters 2003). Former Singapore Trade Minister, George Yeo, has stated that the 'growing education market in Asia is a major economic opportunity [for us]'; leading to the creation of an estimated 22,000 new jobs (Reuters 2003). In the Singaporean case, it is the Trade Minister, and not the Education Minister, that is taking the crucial decisions about market expansion and strategic directions. This is indicative of their conceptualization of the education services industry – primarily a source of revenue with real potential to grow. This is, arguably, a justified approach: UNESCO's Institute for Statistics has noted that the "largest group of mobile students come from East Asia and the Pacific (701,000 or 29% of the world total) and Western Europe (407, 000 or 17%)" (UNESCO 2006, 38). This leap in student mobility can become an important source of capital influx for the country able to make the greatest advances in the education market. In another speech, the Minister of State for Education, Dr. Ng Eng Hen, stated:

Reports tell us that there are nearly two million tertiary-level students who now study outside their home countries. It's a given that foreign students bring revenue – universities do not survive on ideas and aspirations; they too need to balance their budgets. (...) It is not surprising therefore that many countries consider education services an important growth sector that should be exploited much further. (MOE 2005)

Just kilometres away, Malaysia has adopted a similar tone with regards to its education industry. Not oblivious to the tremendous boost to GDP a healthy internationalized education sector could represent, they too have adopted an aggressive export-led market strategy. The Malaysian government noted that Malaysia's higher education system is "poised as the centre of educational excellence in the Asia-Pacific region," and as such they aspire to a doubling of foreign international students, from 50,000 to 100,000 by 2010 (Financial Express 2007). Just as Singapore has done, Malaysia has reformed its trade and domestic policies to allow foreign institutions to set-up campuses on their soil, showing remarkable trade flexibility in Modes 2 and 3 service delivery. This represents, not only a legitimizing boost to the claim of a regional edu-hub, but more importantly, signals an openness in the education services trade and a willingness to internationalize, liberalize and dominate the education service market.

The United States, Australia and the United Kingdom have long dominated the international education market, attracting the majority of internationally-mobile students among OECD countries. With regards to their own domestic education markets, international students make up 17 per cent of the total students enrolled in higher education in Australia, 14 per cent of the total enrolled in the United Kingdom, and 4 per cent of the total enrolled in the United States (OECD 2007, 298). All three countries have been very active in global higher education markets, leading in Mode 2 and Mode 3 service delivery. As one would suspect, because the ratio of foreign students to national students in Australian higher education is the highest, they have been the most active and progressive with regards to program delivery, institutional partnerships and FDI in transnational education markets. Ziguras et al. (2007) note:

During the past decade, Australian universities' transnational programmes have grown rapidly, particularly in South East Asia, where British, Australian and US universities have been delivering innovative collaborative programmes through local partner organisations such as private colleges, universities and professional associations. (Ziguras et al. 2007, 360)

It is estimated that 80 per cent of jobs in Australia are in services, which accounts for two-thirds of GDP and a quarter of total exports (Ziguras et al. 2007, 361). Should the Australian share of the international student market significantly decrease, there are real fears that this would create an obstacle to providing higher education at home. Hence, it is very much in the national interest to continue to stimulate growth in this industry and continuously ‘upgrade their product offerings’, delivery and strategies to maintain their comparative and competitive advantages. Summarizing the Australian government’s position on the issue, Ziguras et al. quote the Australian Department of Foreign Affairs and Trade:

Australia’s basic objective for the GATS negotiations is to improve market access conditions for Australian services exporters. Australia has very significant interests in increasing the export opportunities in this sector, which is a high growth area and offers significant prospects for further growth and employment for all Australians. (Ziguras et al. 2007, 366)

As the traditional leader in service exports, the United States has a very real and vested interest in liberalizing the higher education service industry, maintaining its share of the global market. Global distribution of international students indicate that the United States remains the leading destination for international students – having captured 44 per cent of the Asian student market – closely followed by Australia and the United Kingdom, each capturing 12.5 and 11.3 of the Asian student market respectively (Marginson and McBurnie 2007). Together with Australia and the United Kingdom, the United States has been a key promoter of liberalization of the education service sector.

#### **(d) Synthesis: “Flying Geese” in an Education Services Industry?**

Many have attempted to conceptualize the impact the promulgation of bilateral and multilateral trade agreements has had in the education industry. Approaches to internationalization have been surveyed from a number of different policy rationales, including: (i) internationalization for cooperation and mutual understanding; (ii) internationalization and student mobility for modernization; and, (ii) the wealth-generating or profit maximization

rationale. This paper argues that while international cooperation, mutual understanding and modernization are definitely potential outcomes of the internationalization process, they are not the primary rationale which motivated global developments in the higher education service industry. At both the governmental level and the university level, potential financial gains stemming from an internationalized education system has played a significant role in policy-making.

Data in this field of research is meager. Hence, the following arguments will be based on extrapolations from the available data in both the field of economic trade and education. Fundamental to the FG model of industry development is the flow of capital, FDI and knowledge to the developing countries and their industries. METI data offers a glimpse of the regional inward balance of trade for Asia.<sup>4</sup> Since, roughly the 1980s, and more acutely around 1995, regional trade has expanded at a tremendous rate. This is the very foundation of the FG model, as it would require that after a product is introduced into a new market – in this case higher education services – greater FDI is invested in those markets while they in turn attempt to mimic and reproduce the product introduced. Concretely, this signifies that the means for rapid development of the education industry by way of collaborative programs and government-led sectoral investment has, and continues to have, a foundation in Asia. The three big education exporters, the US, Australia and the UK have elaborated their network of linkages and program delivery schemes over the past few decades. Their services and end-products have become varied over time: beginning with simple recruitment offices to attract foreign students, to more elaborate ICT-based e-learning initiatives in the region.

Additionally, if we scrutinize recent figures pertaining to student mobility, we realize that a FG-type pattern may be on the verge of emerging. Figures 5, 6, 7 and 8 show international

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<sup>4</sup> (METI 2006, 9)

student mobility patterns between 1997 and 2006. We begin to observe a consistent downward trend in students going to study in traditional host countries – US, UK and Australia. This downward trend corresponds to a concurrent upward trend in Malaysia, a country that has successfully managed to attract an increasing number of students in higher education.<sup>5</sup>

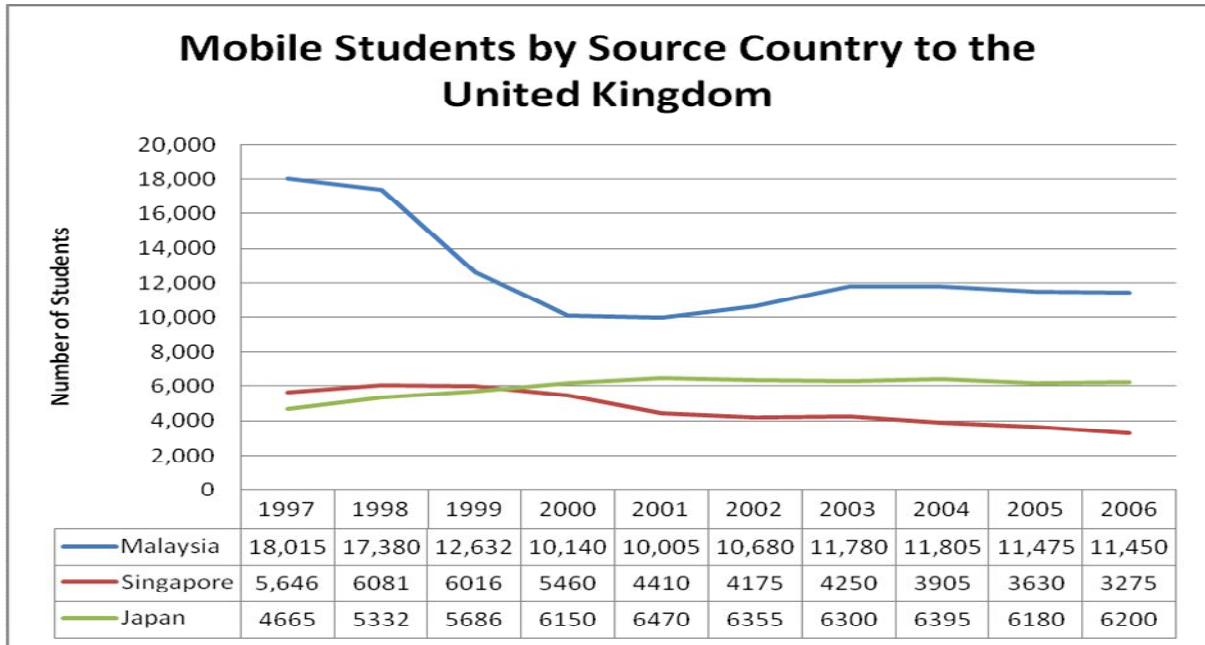


Figure 5. International student mobility to the United Kingdom 1997-2006<sup>6</sup>

<sup>5</sup> NB. Statistics for a time-range of international student inflows to Singapore were not yet available at the time of writing.

<sup>6</sup> Data source: (Lasanowski and Verbik 2007, 7).

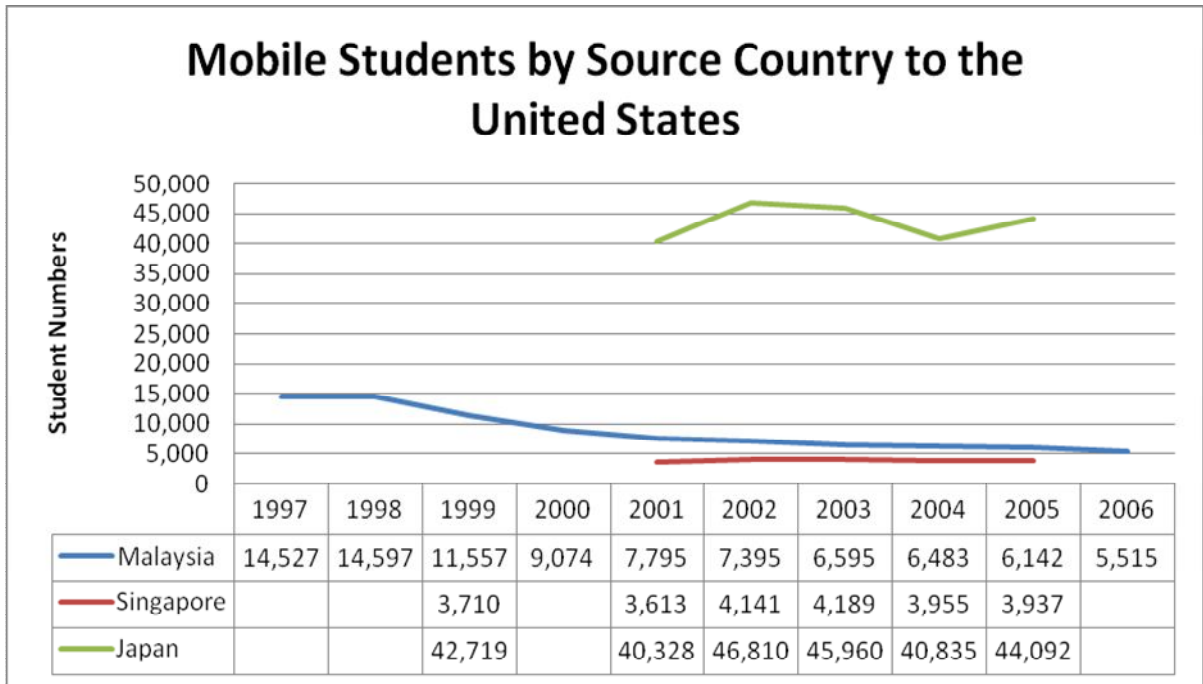


Figure 6. International student mobility to the United States 1997-2006<sup>7</sup>

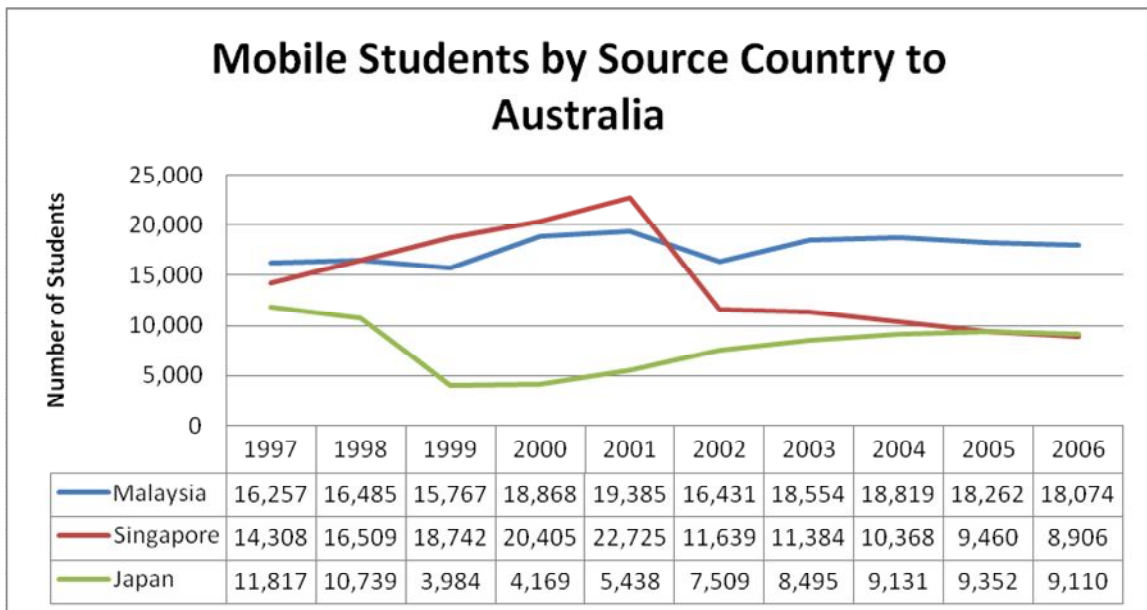


Figure 7. International student mobility to Australia 1997-2006<sup>8</sup>

<sup>7</sup> Data source: (Lasanowski and Verbik 2007, 6).

<sup>8</sup> Data source: (Lasanowski and Verbik 2007, 9).

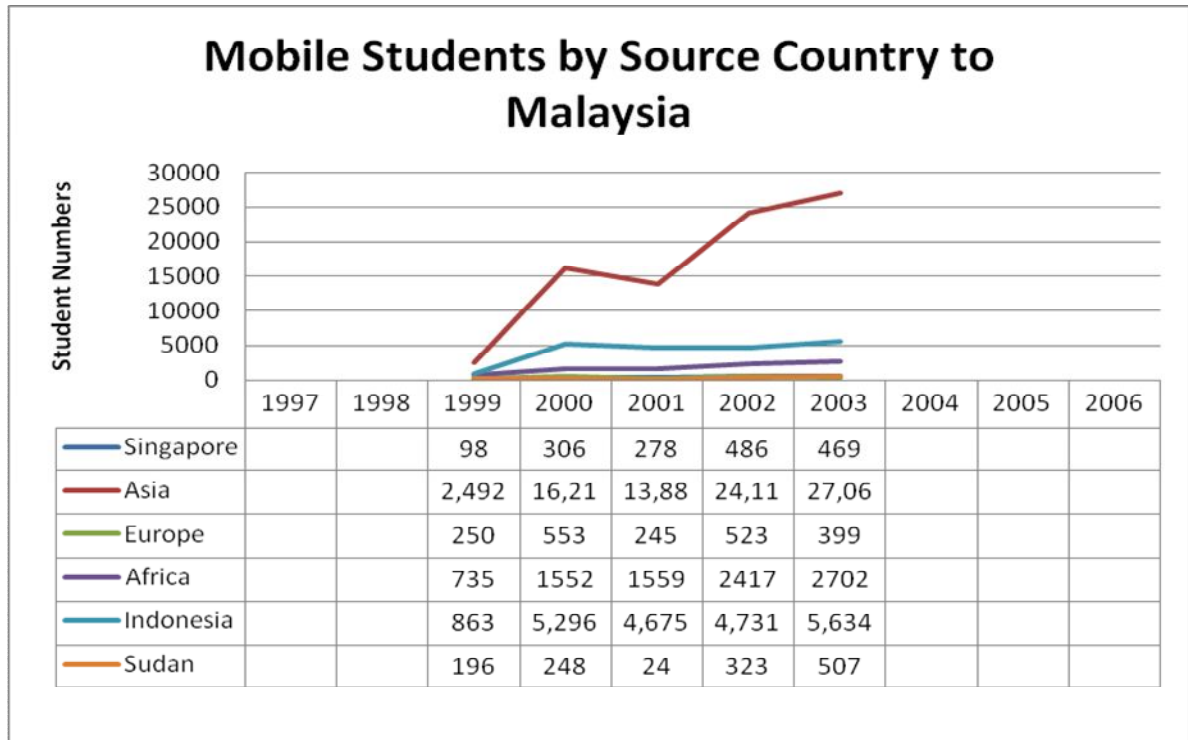


Figure 8. International student mobility to Malaysia 1999-2003<sup>9</sup>

Figure 6 shows an increase in student flows from Singapore to the US. One explanation can be that innovative liberalization policies adopted by Singapore has led to the establishment of multiple joint-degree programs, or twinning ventures. Rather than disprove the FG model, this simply reconfirms that an originating industry will re-specialize and move into new industries to maintain a competitive and comparative advantage.

Similarly, education industries in these developing or high-growth countries are mimicking and adopting patterns of service delivery from developed countries at a much quicker rate. It took approximately two decades for Singapore and Malaysia to put forth their own internationalization agendas. Now, the stepping stone in terms of industry development time and product re-specialization is greatly reduced at every stage: student recruitment, institutional partnerships, dual-degree programs or twinning and the establishment of overseas campuses.

<sup>9</sup> Data source: UNESCO Institute for Statistics - Online Database



Statistical data accumulated in the next five years will confirm whether the growth in the education service sector is following the FG model of industry development. Thus far, exports – inwardly-mobile international students to the US, Australia and the UK - have begun to decrease slightly in traditional host countries, while exports – inwardly-mobile international students - to countries like Malaysia have been on the rise.. Similarly, the Government of Singapore has noted a dramatic rise in student numbers and hence, education exports. Finally, we need to establish whether a trend of reverse-exports is indeed underway, in order to satisfy Akamatsu’s FG model.

Concretely, Singapore and Malaysia have been at the forefront of developments in the education industry; encouraging both forward and backward-led export strategies. The rationale is similar and consistent with Singapore’s: gross domestic product growth. Elaine Yong of the Western Australian Trade Office in Kuala Lumpur noted that,

International students contribute RM50 million in direct earnings for the country [Malaysia] each year. The Government expects the international student market to contribute RM2.8 billion per annum to the Gross Domestic Product if it attracts 50,000 international students per year over the next five years. (Yong 2008)

Both Malaysia and Singapore have begun to aggressively invest abroad as they begin to refine their export product, discovering as they go where their comparative advantages lie. In 2007, for example, Malaysia oversaw campus openings in both the United Kingdom and Botswana – the Limkokwing University of Creative Technology campuses. What is more, this dual strategy of aiming for niche markets with a refined product is precisely what Akamatsu had envisioned, albeit in regard to the manufacturing industry.

Finally, building on the FG model and Kojima’s IF model, I believe a model can be arrived at which accurately captures the sequential developments and transitions in the higher education industries in the US, UK, Australia, Japan, Malaysia and Singapore – see Figure 10. Consistent with Kojima’s interpretation of investment frontiers, each country has successively borrowed from a lead country, and in turn specialized, prior to developing a niche export market of its own. Here we see the influence of the United States, Australia and the UK in leading the

education service industry in all markets. However, it should be noted that all following-countries have quickly responded by developing their own ‘refined export’.

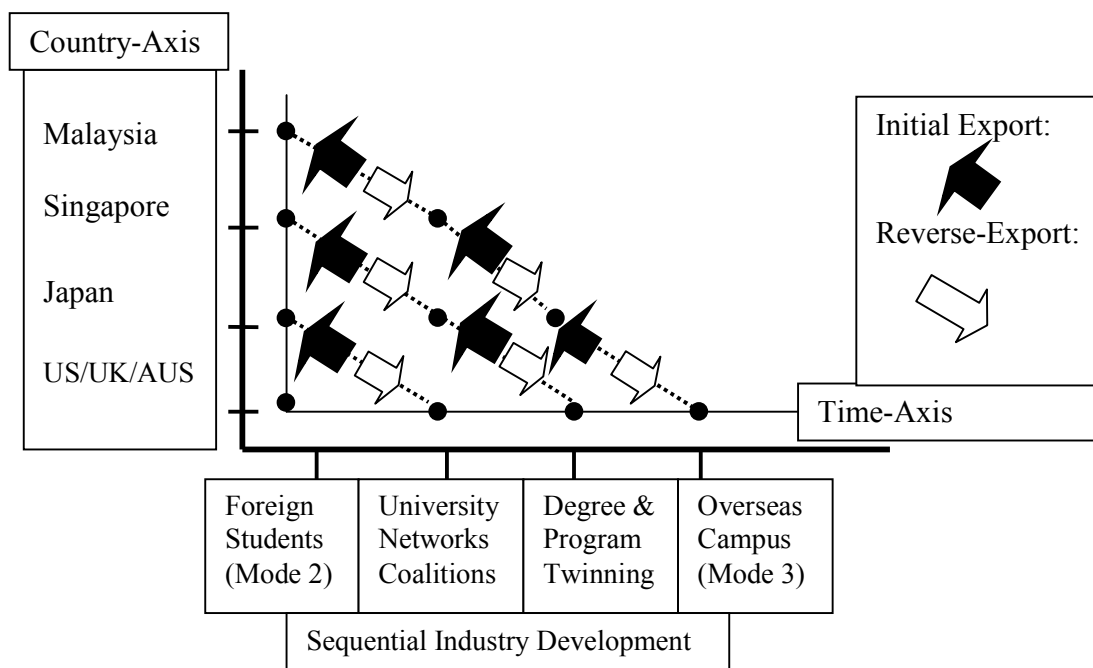


Figure 10. An interpretation of the Kojima Investment Frontier Model adapted to the Evolution of the Asia-Pacific Education Services Industry

This model is consistent with both the FG model of industry development and furthermore captures Kojima’s interpretation of vertical and horizontal industry development, specialization and export.

**(e) Conclusion**

The global education industry has been growing for some time. The countries leading the development and which command the largest market shares are the United States, Australia and the United Kingdom. Since the mid-1980s, however, a tremendous increase in FDI to the Asia-Pacific region has allowed certain countries to invest heavily in their tertiary education sectors. Recognizing the importance of the emerging ‘knowledge economies,’ certain countries in the Asia-Pacific region have been keen on become key players in this industry. Notably, Malaysia and Singapore have both declared themselves the new regional hubs of higher education and have adopted fittingly aggressive liberalization strategies.

In an attempt to capture the developments in this industry, Akamatsu's Flying Geese Model of industry development and Kojima's Investment Frontier Model are applied to the education industry in an original interpretation of two economic models. The FG model of industry development captures the process of industry development based on the import of a finished good from a developed country, to the eventual production, specialization and export of a very similar, locally produced good. This model of industry development has been applied to the growth of the trade in education services. Similarly, Kojima's IF model is used to describe the transfer of knowledge and expertise between a lead-country and following-countries in the Asia region over a period of time. This model predicts the development of a variety of niche markets.

The data provided points to industry shifts, similar to those found in the Akamatsu and Kojima models. Indeed, declines in education exports from traditional leading countries coincide with a steady rise in exports from certain countries in Asia. Market-specific innovation is used to break into new markets: Malaysia's Limkokwing University of Creative Technology's, with operations in the UK, serves as a case in point. Higher education providers in both Malaysia and Singapore have developed their service industries in a manner predicted in both the Akamatsu FG model and Kojima's IF model.

## Bibliography

- "Education at a Glance 2007." In *OECD Indicators*. Paris: OECD, 2007.
- "General Agreement on Trade in Services." World Trade Organization,  
[http://docsonline.wto.org/GEN\\_searchResult.asp?RN=0&searchtype=browse&q1=%28@meta\\_Symbol+LT%FCUR%FCA-1B%FCS%FC1%29+%26+%28@meta\\_Types+Legal+text%29](http://docsonline.wto.org/GEN_searchResult.asp?RN=0&searchtype=browse&q1=%28@meta_Symbol+LT%FCUR%FCA-1B%FCS%FC1%29+%26+%28@meta_Types+Legal+text%29).
- "Global Economic Strategy - Summary." Tokyo: Ministry of Economy, Trade and Industry (METI), Japan, 2006.
- "Global Education Digest 2006: Comparing Education Statistics across the World." Montreal: UNESCO Institute for Statistics, 2006.
- "Strategies Towards a Global Education Hub." *The Financial Express*, August 31, 2007.  
Aggarwal, Vinod K. and Shujiro Urata, ed. *Bilateral Trade Agreements in the Asia-Pacific*. New York: Routledge, 2006.
- Knight, Jane. "Higher Education Crossing Borders: A Guide to the Implications of the General Agreement on Trade in Services (Gats) for Cross-Border Education." Paris: UNESCO and Commonwealth of Learning, 2006.
- Kojima, Kiyoshi. "The 'Flying Geese' Model of Asian Economic Development: Origin, Theoretical Extensions, and Regional Policy Implications." *Journal of Asian Economics* 11 (2000): pp. 375-401.
- Lasanowski, Veronica and Line Verbik. "International Student Mobility: Patterns and Trends." London: The Observatory on Borderless Higher Education, 2007.
- Lee, Hyun-chong. "Unesco's Role in the Development of Higher Education of Asia and the Pacific Region in the 21st Century." In *Implications of Wto/Gats on Higher Education in Asia & the Pacific*. Seoul: UNESCO, 2005.
- Marginson, Simon and Grant McBurnie. "Asia: The Region and International Education." Institute for International Education,  
[http://www.iienetwork.org/?p=Marginson\\_McBurnie](http://www.iienetwork.org/?p=Marginson_McBurnie).
- Ministry of Education (MOE), Singapore. "Speech by Dr Ng Eng Hen, Acting Minister for Manpower and Minister of State for Education at the Opening Session of the 2nd General Meeting on the ASEM Education Hub." edited by Ministry of Education - Singapore, 2005.
- Reuters. "Singapore Hopes to Become Global Education Hub." *CNN.com*, October 13 2003.
- Robertson, Susan L. "Globalisation, Gats and Trading in Education Services." In *Supranational*

*Regimes and National Education Policies: Encountering Challenge*, edited by J. Kallo and R. Rinne. Helsinki: Finnish Education Research Association, 2006.

Tung, An-Chi. "Beyond Flying Geese: The Expansion of East Asia's Electronics Trade." *German Economic Review* 4, no. 1 (2003): pp. 35-51.

Vlk, Ales. "Higher Education and Gats: Regulatory Consequences and Stakeholders' Responses." Twente University 2006.

Yong, Elaine. "Malaysia's Plan to Be the Regional Education Hub and Its Implications on Western Australian Institutions." Australia-Malaysia Business Council, [www.ambcwa.org/articles](http://www.ambcwa.org/articles).

Ziguras, Christopher, Leanne Reinke and Grant Mcburnie. "'Hardly Neutral Players': Australia's Role in Liberalising Trade in Education Services." *Globalisation, Societies and Education* 1, no. 3 (2007): 359-74.

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