

## **Regional Cooperation in Education: Issues for Developing Countries in the Asia-Pacific**

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### **Introduction**

The role of education in economic development is widely acknowledged. Hanushek and Woessmann (2008) list three mechanisms through which education impacts on economic growth:

“First, just as in the micro perspective, education increases the human capital inherent in the labor force, which increases labor productivity and thus transitional growth towards a higher equilibrium level of output.... Second, education may increase the innovative capacity of the economy, and the new knowledge on new technologies, products and processes promotes growth... Third, education may facilitate the diffusion and transmission of knowledge needed to understand and process new information and to implement successfully new technologies devised by others, which again promotes economic growth”

The second and third mechanisms highlight the importance of an adequate education system in a rapidly evolving economic environment. Continuous technological progress and the process of globalization has accelerated the pace of job destruction, creation, and churning (Paqueo, et al. 2012) and widened “skill gaps” in the Philippines (di Gropello, et al. 2010), an experience likely shared by other developing economies. These gaps are created when there is a significant difference between the type of skills demanded in the labor market and the type of skills possessed by the labor force. Education has a prominent role in shaping these skills.

Many elements characterize the nature of the education system. In general, these aspects can be categorized into one of three categories: availability, access, and quality. In turn availability, access and quality are affected by factors such as resources allocated to the education sector, the institutional framework which includes governance issues, culture which includes the environment at home, and public infrastructure. This paper looks at how regional cooperation can improve availability, access to and the quality of education.

### **Regional Cooperation in Education**

A useful reference for understanding the issues involved in regional cooperation in education, particularly for East Asia, is McKenzie, et al. (2008). They give a practical definition of regional cooperation in education:

“Educational cooperation in the broadest sense occurs whenever two or more parties work together to achieve an educational objective. In international education cooperation, two or more of the parties working together are from different countries. International partners working together towards an educational objective may be:

- a) Playing similar roles – e.g. two countries cooperating on an exchange program; or
- b) In a purchaser-provider relationship (i.e. trade in educational services); or
- c) In a donor-recipient relationship (i.e. development assistance).”

Regional cooperation in education should be guided by certain goals and objectives. These will be the basis for specific programs. The study of McKenzie, et al. proposed the following objectives for regional cooperation in East Asia:

“1. To build communities among the peoples of the East Asia Summit (EAS) countries, notably through:

- Increasing the mobility of students, teachers and researchers in the area;
- The appreciation of one another’s heritage and history; and
- The learning of other languages.

2. To create competitive advantage for the EAS region by:

- Promoting excellence at all levels of education through the exchange of information on good practice, and by bench-marking; and
- Enlarging choice in tertiary education and in the labor market through measures to facilitate the movement of students, staff and tertiary-qualified personnel across national borders, and by enlarging access for tertiary education providers to national markets.

3. To reduce disparities in educational opportunity within and between countries in order to:

- Facilitate access to basic and non-formal education and promote high standards through networking and institutional collaboration; and
- Promote tertiary education and training in home countries, especially in the fields of science and technology, as a means to economic development.”

These objectives are consistent with the elements of availability, access, and quality mentioned earlier. In particular the desire to promote tertiary education in the fields of science and technology dovetails with the issue on skill gaps and churning in the labor market. Regional cooperation can therefore complement reforms at the domestic level. The major mechanisms for regional cooperation are listed in Table 1.

[Table 1 here]

Institutional mechanisms for regional cooperation in education are fairly advanced in the Asia-Pacific region. These can be classified as regional cooperation *per se*—which is largely government-driven—and universities cooperation (Sugimara 2012). Both types of regional cooperation exist at different levels.

The main argument of this paper is that the role of regional cooperation in a particular country and the viable mechanisms will largely depend on its position in the development ladder and the status of its education sector. In the next section an attempt is made to classify selected countries in the Asia-Pacific along these two dimensions. Broad analysis will be attempted with special attention on the Philippines.

## Data

Education attainment is measured using data from Barro and Lee (2010). Four variables are examined more closely. The data are available for 146 economies for five year segments over the period 1950-2010.

1. Average years of schooling attained in population
2. Percentage of Complete Secondary Schooling Attained in Population
3. Percentage of Tertiary Schooling Attained in Population
4. Percentage of Complete Tertiary Schooling Attained in Population

The limitations of data on school attainment are recognized by experts. This is the reason why there have been efforts to measure cognitive skills (Hanushek and Woessmann, 2008). Unfortunately, there are insufficient data on cognitive skills to conduct the type of analysis required in this paper.

Processing of data was initiated by graphing the initial level of the variable in a particular year against the change in the variable for the period starting with the first year until 2010. For example, Figure 1 shows the graph for average years of schooling attained in the population, with 1975 as the initial year.

[Figure 1 here]

The graph in Figure 1 clearly indicates that there is convergence among countries in terms of average years of schooling. In other words, the higher the initial level in 1975, the lower the average growth rate over the period 1975-2010. The year 1975 was arbitrarily chosen.<sup>1</sup>

The mean for each variable is calculated and the values are used to divide the graph into four quadrants. Following Fagerberg, et al (2007), the quadrants are defined as follows:

|                                    |                          |
|------------------------------------|--------------------------|
| Quadrant 1: Losing Momentum        | Quadrant 2: Moving Ahead |
| Quadrant 3: Falling Further Behind | Quadrant 4: Catching Up  |

Figure 2 shows the same graph as Figure 1 with selected Asia-Pacific economies being highlighted. These are Australia, Canada, China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Mexico, New Zealand, the Philippines, Singapore, Taiwan, Thailand, USA, and Viet Nam. In Figure 2, the Philippines and most of the other economies are in the “Losing Momentum” quadrant.

[Figure 2 here]

Since regional cooperation in education deals more with higher education, the more important variable would be “Percentage of Complete Tertiary Schooling Attained in Population.” The graph for this variable for the selected economies is shown in Figure 3.

[Figure 3 here]

The graph in Figure 3 is then juxtaposed with per capita GDP growth (in 2005 PPP\$). The behavior of the latter variable is shown in Figure 4. Figures 3 and 4 are then consolidated to form Table 2.

[Figure 4 and Table 2 here]

Table 2 shows that since 1975, China, Indonesia, Malaysia, Thailand and Viet Nam have been catching up in terms of both per capita GDP growth and education attainment as measured by Percentage of Complete Tertiary Schooling Attained. The table also shows that the Philippines manifests the development puzzle with which it has been associated. Despite a relatively high education attainment, the Philippines has fallen further behind in terms of economic growth.

### **Opportunities for Regional Cooperation**

Economies in the Asia-Pacific apply the mechanisms listed in Table 1 in different ways. McKenzie et al (2008) conducted a survey for the EAS countries in order to determine how the various mechanisms are applied. The results for three countries are shown in the Appendix. This section discusses some of the mechanisms in the context of Table 2.

People exchange remains the primary mechanism for regional cooperation in education, especially for developing countries. The top destinations of foreign students are the US, United Kingdom, Australia, Germany, Japan and Canada. Four of these countries are in the Asia-Pacific region. More scholarships and exchange programs can be made available for developing countries as part of expanding regional cooperation. However, the share of international scholarships for academics has to be increased to improve the teaching and research abilities in developing countries.

In the past two decades or so, Singapore, Hong Kong, China and Malaysia have enhanced their roles as hubs of higher education. These economies are all described as “catching up” in terms of Percentage of Complete Tertiary Schooling Attained in Population (Table 2). Apparently efforts to establish the economies as knowledge centers contributed to the catch-up process in education attainment.

In the case of Singapore and Malaysia, their role as education hubs was accomplished by partnering with prestigious universities abroad and encouraging faculty to relocate to these countries. Meanwhile, the Hong Kong government allowed countries to provide courses in Hong Kong in order to build local capacity (Santiago, 2006). Having more hubs, particularly middle-income countries, will make education abroad more accessible and affordable for lower income countries.

In theory, the Philippines can also attract more foreign students especially with the competency of the population in the English language. The likelihood of being a hub will increase if schools focus on niche courses where the Philippines can claim excellence: nursing, dentistry, medicine, care-giving, language education, and information technology (Santiago, 2006). Unfortunately there are constraints to this prospect, the main ones being laws that limit foreign ownership and poor physical infrastructure. The latter is reflected in the poor economic growth performance (Figure 4, Table 2) where the Philippines is described as “falling further behind”. Foreign students expect good facilities in a country that for many of them should be more advanced than theirs. At present, these facilities are lacking.

Transnational education involves the other three of the four modes of trade in education services. The three modes are cross-border supply, commercial presence, and presence of natural persons. Countries usually resort to transnational education if domestic capacity is constrained. Such was the case in Malaysia which opened its doors to foreign institutions beginning in 1996 after realizing it may not be able to educate over five percent of its population on its own (Santiago, 2006 citing Lenn, 2000). The catch-up process of Malaysia in terms of economic growth which gained momentum in the 1980s allowed it to allocate resources to transnational education. In turns, this increased the access of Malaysians to tertiary education enabling economic growth to be sustained.<sup>2</sup>

Transnational education is not a relevant mechanism for the Philippines for two reasons. One, the access to tertiary education in the Philippines is relatively high although it is classified as “losing momentum” in terms of Percentage of Complete Tertiary Schooling Attained in Population (Table 2). Two, transnational education will increase the cost of education. Since economic performance in the Philippines is “falling further behind” leading to slower growth in real per capita income, the increased cost of education will reduce accessibility. An alternative is to use commercial presence of foreign schools as a channel to improve the attractiveness of the Philippines as a knowledge center. However, as pointed out earlier, laws that limit foreign ownership will discourage possible foreign partners.

What would be relevant for the Philippines is regional cooperation that would facilitate regulatory reform. Foremost among these reforms is the establishment of a credible accreditation system. Quality assurance is necessary to increase access of local students to universities abroad and employment opportunities in other countries. Paqueo, et al (2012) describe the accreditation system in the Philippines as follows:<sup>3</sup>

“The Philippine system of accreditation is voluntary, consistent with the preferred culture of self-regulation. Accreditation is done at the program rather than institutional level. Today, there are five accrediting institutions with three catering to private institutions and two to public institutions. While in theory, Higher Education Institutions can have their programs accredited by any of the agencies, in practice, the agencies usually cater to their own constituents. Despite the long history of accreditation in the country, less than 20 percent of the HEIs have accredited programs. Relative to the 20,000 registered programs documented in Tayag and Calimlim (2003), this means only 7 percent of the programs are accredited. That four-fifths of the programs are not submitted for accreditation speaks a lot about the quality of the programs.”

One reason for the lethargic economic growth despite the relatively high level of tertiary education is the poor quality of the colleges and universities in the Philippines.

The Malaysian case provides a useful counterpoint to that of the Philippines:<sup>4</sup>

“... countries like Malaysia chose to link its accreditation system with those of other Asian countries, and are aiming to fortify the function of domestic quality assurance in this international competition by referring to the standards of the Australian Universities Quality Agency, the New Zealand Qualifications Authority, the office for National Education Standards and Quality Assessment in Thailand and the University Association Quality Assurance Network in Singapore. Malaysia is also characteristic in its development of an international quality assurance network, collaborating with AQAN, the ASEAN QA network; on the one hand, while on the other hand it is beginning to

actively participate in the Association of Quality Assurance Agencies of the Islamic World (AQAAIW) since Malaysian society is an Islamic one.

Such participation in and collaboration with international networks is a new trend that emerged from the advancement of globalization in higher education, and it is a national strategy that aims to match Malaysian higher education policy to not only domestic needs but also to international standards so as to seek more versatility in its international higher education. Amidst the transnational movement of international higher education, the issue of quality assurance is an indispensable aspect for human resource development and the establishment of a solid education program for this purpose. Transnational programs are effective in attracting international students for many reasons, including economic reasonableness, efficiency, and ease of degree acquisition, and an effective method for governments to enhance their higher education. However, without guarantees for the credibility and validity of such degrees and qualifications, the incentives for these programs would soon lose their appeal.”

Malaysia’s approach resolves the “dilemma of establishing quality assurance based on international standards while maintaining national governance within the country and the autonomy of higher education agencies.” (Sugimura, 2012). In the case of the Philippines, the agency for higher education does not even impose mandatory accreditation.

The ASEAN Quality Assurance Network was organized in 2008 in order to promote collaboration among QA-related agencies in individual ASEAN countries. At present, the Philippines have not fully acceded to AQAN. One proposal is for the collaboration to be formalized into an agreement to achieve certain standards in the education sector within a prescribed time. This can be called the ASEAN Education Agreement which hopefully will have an impact similar to free trade agreements. FTAs give leverage to policy makers in implementing domestic reforms. They can readily argue that the reforms are necessary to meet international agreements.

While the ASEAN Education Agreement is being considered, the ASEAN Universities Network can be strengthened and expanded. One possible option is for the AUN to participate in the Coursera program or establish a similar system and dovetail it with an open university. However, this will likely cover only a few schools in most member countries which will not be enough to create a critical mass in order to make mandatory accreditation the norm.

Countries can also pursue bilateral mutual recognition agreement MRAs. which should include quality assurance on the part of both countries. Even if the standards are not as the same level as in higher-income countries, there will be pressure on some of the higher educational institutions in the lower income countries to improve their programs and facilities to gain accreditation.

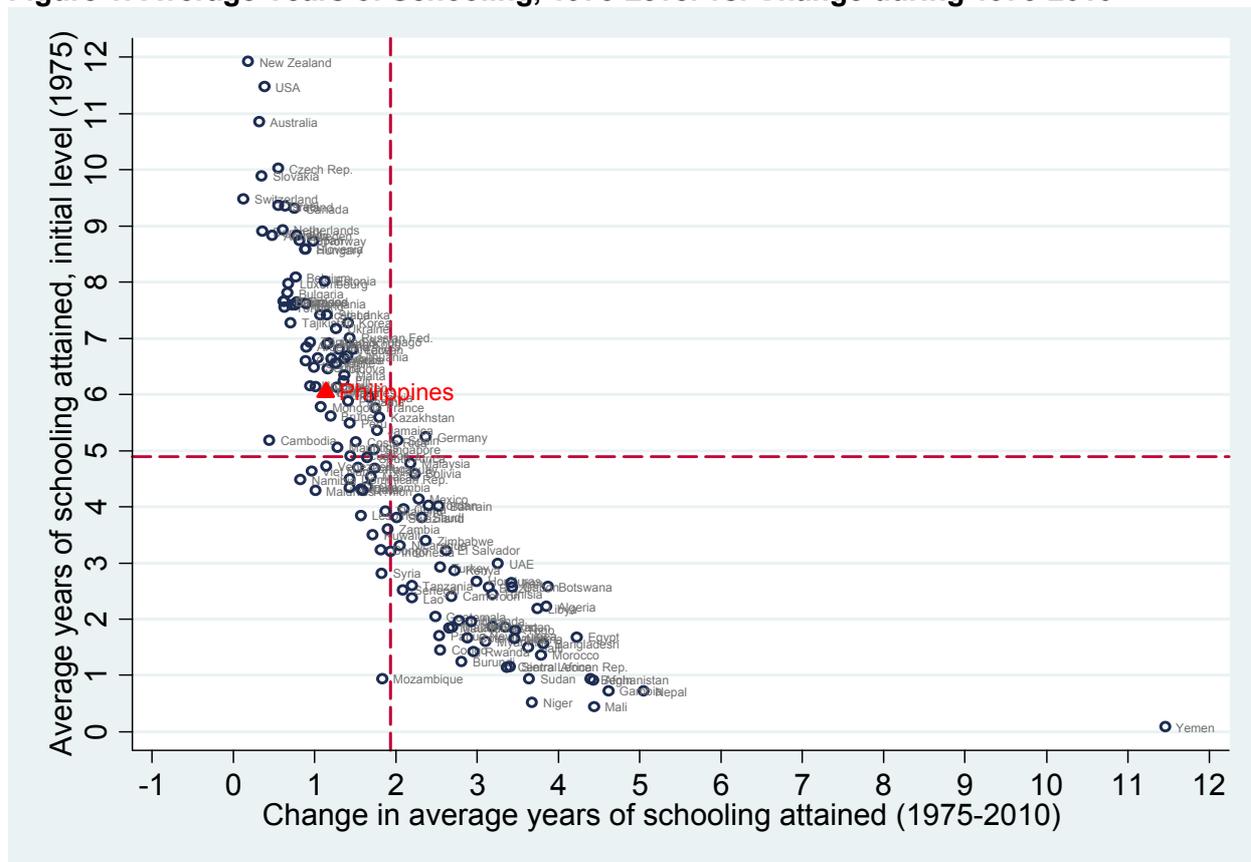
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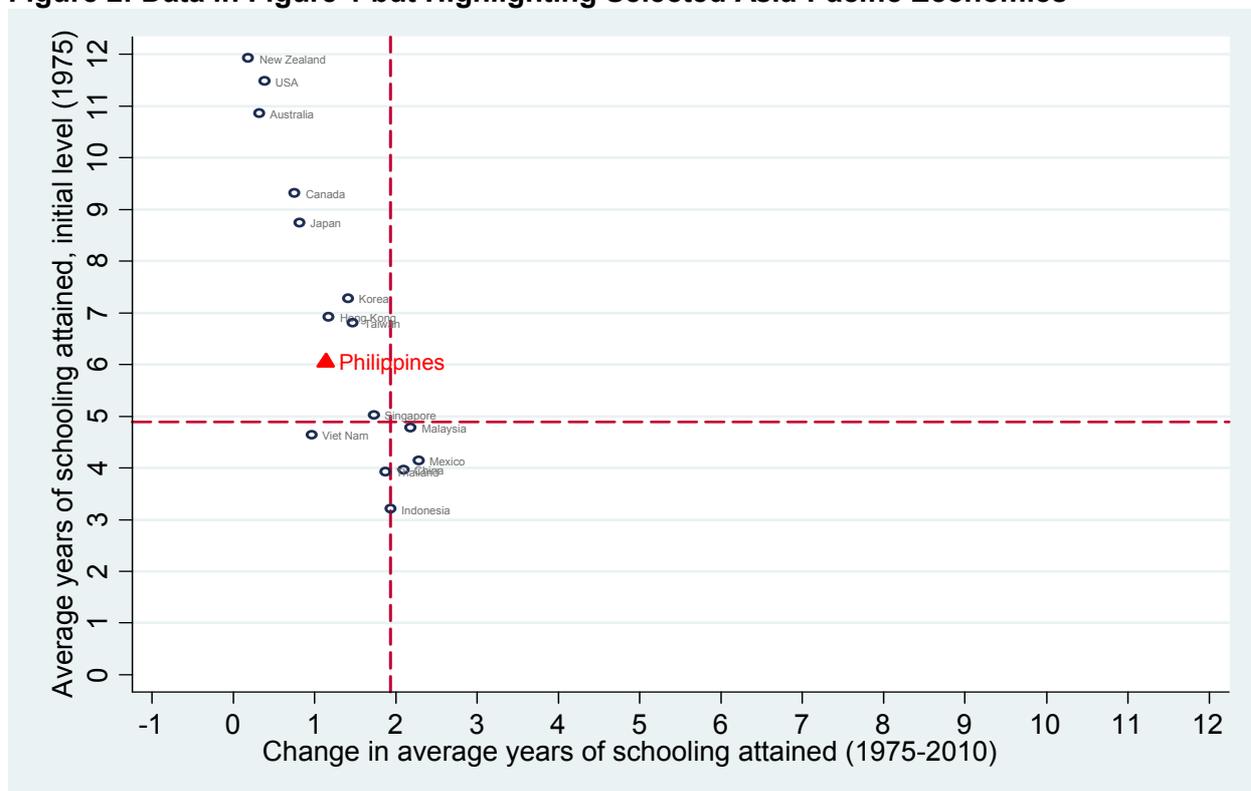
**Table 1: Types of International Education Cooperation**

|  |   |
|--|---|
| 1. People Exchange   | The oldest form of educational collaboration. It entails a direct personal exchange. It involves international exchanges of students, teachers, researchers and administrators through scholarships, study visits, curriculum projects and research collaborations. This form of cooperation includes the mechanisms and networks which facilitate people exchange as well as the exchanges themselves.   |
| 2. Transnational Education   | This can involve educational institutions or centers jointly provided and funded by several countries, or the establishment of campuses in other countries, often in association with a local partner. It also includes the supply of distance education across national borders.   |
| 3. Information Exchange  | Information exchange is a key source of successful collaboration in education, often involving the establishment of information clearing houses. Examples include the OECD's Education at a Glance, first published in 1992 and now the principal source book for comparative indicators of educational participation and performance in OECD countries, and a stimulus to ongoing international data collection efforts: and, in the EAS area the Southeast Asian Ministers of Education Organization (SEAMEO) Regional Centers and the ASEAN University Network. Other examples include IT platforms such as the European Union's Information Network on Education in Europe (EURYDICE).            |
| 4. Regulatory Reform   | The enabling, administrative framework that makes other forms of educational exchange possible. Examples include multilateral arrangements for quality assurance recognizing qualifications and allowing credit transfer (e.g., the Bologna Process, and the Lisbon Convention in Europe) and the establishment of cross-country quality assurance mechanisms (e.g., the European Network for Quality Assurance in Higher Education, or ENQA, set up in 1999). Regulatory reform can help smooth the flow of students and qualified personnel between countries. Such agreements and frameworks are essential for creating a single market for education and for qualified manpower in a given region |
| 5. Development Partnerships  | In a development partnership two or more countries enter into a systematic relationship, often within the framework of a memorandum of Understanding, to enhance education in a less developed country through the cooperation of a more developed partner. This project is mainly concerned with technical, rather than financial, assistance.   |
| Source: Table 3.1 of McKenzie, et al (2008), page 28. The table is copied in full. |   |

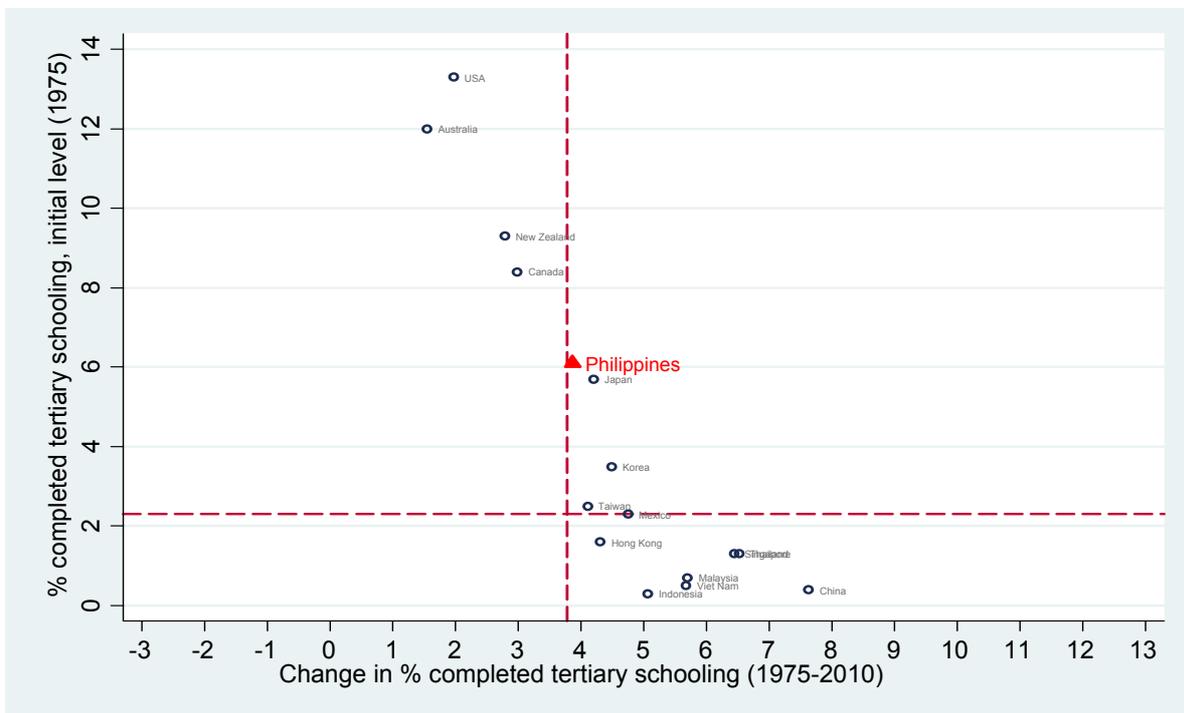
**Figure 1: Average Years of Schooling, 1975 Level vs. Change during 1975-2010**



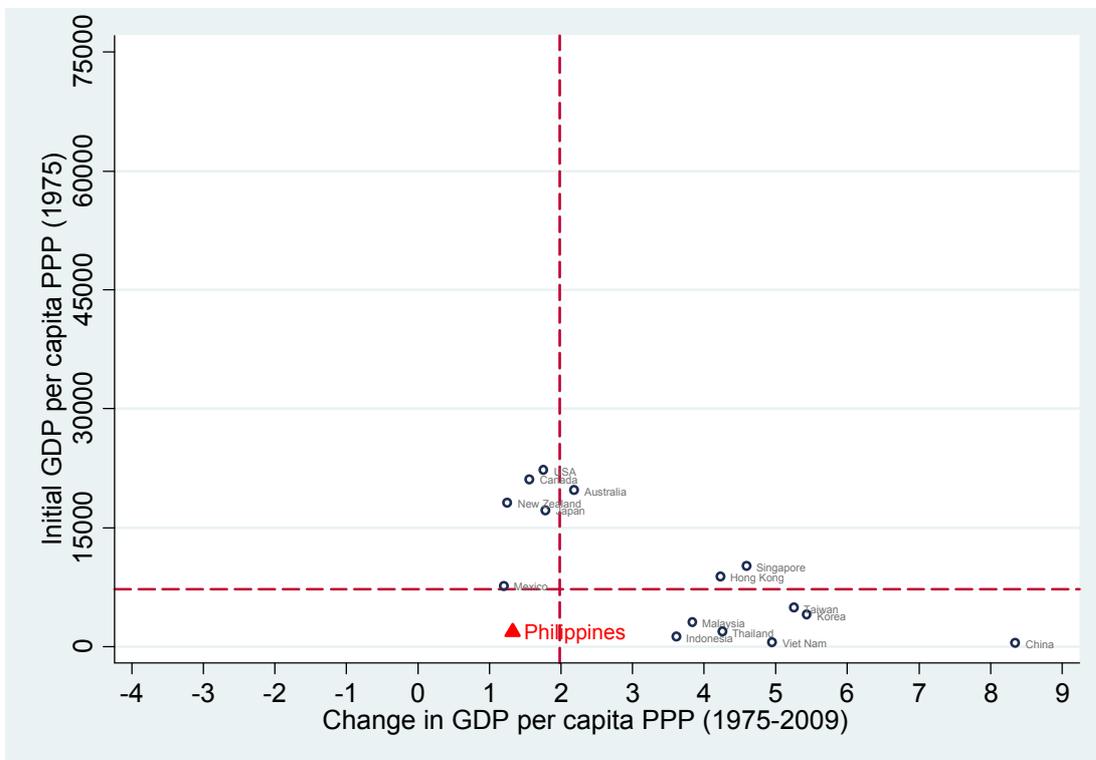
**Figure 2: Data in Figure 1 but Highlighting Selected Asia-Pacific Economies**



**Figure 3: Percentage of Complete Tertiary Schooling Attained, 1975 level vs. Change during 1975-2010**



**Figure 4: Per Capita GDP in 2005 PPP\$, 1975 Level vs. Change during 1975-2009**



| <b>Situation with respect to Education Attainment</b> | <b>Situation with Respect to Per Capita GDP Growth (2005 PPP\$)</b> |                         |                      |                               |  |
|---|---|-------------------------|----------------------|-------------------------------|--|
|   |   | <b>Losing Momentum</b>  | <b>Moving Ahead</b>  | <b>Falling Further Behind</b> | <b>Catching Up</b>                             |
|   | <b>Losing Momentum</b>  | US, New Zealand, Canada | Australia            | Philippines                   |  |
|   | <b>Moving Ahead</b>   | Japan                   |                      |                               | Korea, Taiwan                                  |
|   | <b>Falling Further Behind</b>                                       |                         |                      |                               |  |
|   | <b>Catching Up</b>  |                         | Singapore, Hong Kong | Mexico                        | China, Indonesia, Malaysia, Thailand, Viet Nam |

**Appendix: How Mechanisms of International Education Cooperation are Applied in China, Singapore and Thailand**

| <b>Types of International Education Cooperation, China</b>                         |  |   |   |
|--|--|---|---|
|  | Schools  | Technical and Vocational Education and Training (TVET)  | Higher Education  |
| 1. People exchange   | <p>Major ongoing cooperative projects between China and countries in Asia include the teacher exchange program with Japan and Korea, and the teenager exchange program with Japan.</p> <p>Student exchange agreements with all 16 EAS countries.</p> <p>Large numbers of Chinese students complete their schooling abroad on a self-funded basis</p> | No VET specific data obtained.  | China had 358,000 students doing tertiary studies abroad in 2005, and hosted 78,000 foreign students in 2003, over 80% of them from Asia. China plans to triple provision for foreign students by 2020, including from ASEAN. China offers 5000 scholarships at doctoral level. |
| 2. Transnational Education   | A number of international schools, notably in development zones.   | China has initiated some joint provision with foreign vocational education institutions to promote the development of Chinese vocational education. | By June 2004 there were 164 joint HE programs entitled to award foreign or Hong Kong degrees. Full – fledged international campuses exist, but are not common.  |
| 3. Information Exchange  | <p>China participates in many multilateral and bilateral forums, and maintains a large, cross-sectoral Institute of Educational Research.</p> <p>Mutual study visits are seen as an important way to learn about foreign education and training systems, and provide information about China's.</p>  |   |   |
| 4. Regulatory Reform   | The MoE said that for the time being they preferred to approach mutual recognition on a bilateral basis, through free trade agreements. Agreements are in place or in negotiation with Japan, Korea, Thailand, Malaysia and the Philippines.   |   |   |
| 5. Development Partnerships  | <p>China as a donor for basic education in the CLMV counties.</p> <p>Expanding scholarship program.</p> <p>ASEAN is an area of focus for China's drive to recruit more foreign students.</p>   |   |   |
| Source: Table 6.3 of McKenzie, et al (2008), page 60. The table is copied in full. |  |   |   |

| <b>Types of International Education Cooperation, Singapore</b>                     |  |   |  |
|--|--|---|--|
|  | Schools  | Technical and Vocational Education and Training (TVET)  | Higher Education   |
| 1. People exchange   | <p>Extensive range of school twinning programs and student and staff exchanges with schools in ASEAN and other EAS countries.</p> <p>About 80,000 international students are currently studying in Singapore (all sectors)</p>   | VTE institutions in Singapore host regular study visits and sharing sessions with their counterparts from ASEAN and EAS countries | <p>Growing number of overseas students studying in Singapore, and Singapore students studying abroad</p> <p>Singapore universities have ongoing and regular exchanges with universities in other countries, including through MoUs</p> |
| 2. Transnational Education   | Not part of survey   | Not part of survey  | Joint programs with foreign universities in the EAS region.  |
| 3. Information Exchange  | <p>Participates in a wide range of international research studies e.g. IEA, UNESCO</p> <p>Holds regular bilateral meetings and professional forums with education ministries from ASEAN and EAS countries.</p>   | Participation in ASEAN and APEC working groups on skill development and qualification frameworks                                  | <p>Conduct regular sharing, joint research and information exchanges with universities in ASEAN and other EAS countries</p> <p>Active participation in ASEAN Universities Network (AUN)</p>  |
| 4. Regulatory Reform   | Not part of survey   |   |  |
| 5. Development Partnerships  | <p>Provision of ASEAN Scholarships Training teachers from countries like Viet Nam and Philippines, including in English language teaching</p> <p>School leadership attachments for principals from developing countries</p> <p>Expertise sharing in the learning and teaching of English and other languages through the SEAMEO Regional English Language.</p> | Provision of VTE training programs for trainers and officials from developing countries   | <p>ASEAN scholarships for university study in Singapore</p> <p>Institutional support through AUN and other higher education networks</p>   |
| Source: Table 6.3 of McKenzie, et al (2008), page 70. The table is copied in full. |  |   |  |

| <b>Types of International Education Cooperation, Thailand</b> |   |   |  |
|---|---|---|--|
|   | Schools   | Technical and Vocational Education and Training (TVET)  | Higher Education   |
| 1. People exchange  | <p>Current national economic and social development plan emphasizes preparation of Thai students for global engagement</p> <p>MoUs on educational cooperation, including exchanges of students, staff and officials with Australia, Cambodia, India, Lao PDR, NZ, Singapore &amp; Viet Nam</p> <p>Increasing use of ICT to facilitate staff and student dialogue across countries</p> <p>Seeking to strengthen language teaching including through expertise from other Countries</p> | <p>Increasing number of bilateral arrangements to strengthen TVET, including by exchanging expertise with industries investing in Thailand and countries with which Thailand has FTAs</p> <p>Developing joint programs in training for tourism and hospitality industries with Philippines and CLMV countries to ensure consistency with international standards and to facilitate labor mobility</p> | <p>Thousands of Thai university students study abroad (including 4000 on Thai government scholarships), and there is an emphasis on attracting more foreign students to study in Thailand</p> <p>Over 700 programs offered in public and private universities using English as medium of instruction</p> <p>Large number of MoUs governing staff and student exchange and joint research projects between Thai and overseas universities</p> |
| 2. Transnational Education                                    | Not part of survey  | Not part of survey  | Support for foreign universities wishing to establish campuses and partnerships in Thailand  |
| 3. Information Exchange                                       | <p>Thailand is an active participant in international research studies e.g. by IEA and OECD</p> <p>Hosts a large number of International conferences and study visits on school priority issues</p>   | Strengthening networking arrangements in the region through staff exchanges, joint research projects, and knowledge and management systems  | Active participation in ASEAN University Network and other university networks   |
| 4. Regulatory   | Developing a competency-based training and qualifications systems with  |   |  |

|  |  |
|--|--|
| Reform   | assistance from donor countries and multilateral organizations, and seeking to ensure that standards and qualifications are internationally comparable   |
| 5. Development Partnerships  | <p>Extensive range of development partnerships with ADB, WB and donor countries aimed at building Thai capacity, improving access to education and lifting quality</p> <p>Provides technical assistance and teacher training to developing countries in the region</p> <p>Shares expertise in language training, and in non-formal education with both Thai government and donor support</p> |
| Source: Table 6.3 of McKenzie, et al (2008), page 71. The table is copied in full. |  |

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### Endnotes

<sup>1</sup> Using the years 1960 and 1985 as the initial period does not change the pattern.

<sup>2</sup> The four different measures of education attainment were each used as an explanatory variable in an economic growth model. Only the variable 'Percentage of Complete Secondary Schooling Attained in Population' turned out to have a significant positive coefficient. The empirical model and results are discussed in the version of this paper that appears as PIDS Discussion Paper 2012-15 (<http://publication.pids.gov.ph/details.php?pid=5078>). The implication is that basic education, particularly at the secondary level is more important to generate higher economic growth. Resources then can be channeled to tertiary education to sustain this growth.

<sup>3</sup> Paqueo, et al. (2012), page 59.

<sup>4</sup> Sugimura (2012), page 93. Compared to the Philippines, it was easier and natural for Malaysia to pursue a more 'globalized' strategy in higher education because it shares the same educational culture, tradition and governance system inherent among its major partners, which are members of the Commonwealth of Nations. This facilitates mobility of students, faculty, and systems.