THE REGULATION OF PROFESSIONAL MIGRATION IN ASEAN

INSIGHTS FROM THE HEALTH AND IT SECTORS

Chris Manning[§] and Alexandra Sidorenko[#]
The Australian National University

ABSTRACT

This study assesses the extent of regulation of in-migration of professionals into ASEAN countries. The focus is on two selected sectors, health care and information technology (IT). Both sectors have been given special attention in regional trade negotiations which seek to increase the mobility of professionals in ASEAN. The study is set in the framework of rising demand for more skilled manpower, associated with rapid economic growth and a high income elasticity of demand for services. We develop measures to assess the extent of regulation of in-migration in recipient countries, as well as the depth of commitments to the mobility of professionals under Mode 4. The study links several indices of regulation to stages of economic development. It finds that the more advanced countries in ASEAN tend to have made more liberal commitments under Mode 4. They also had more liberal regimes for international movements of skilled manpower in both health and IT. However there was less difference between more and less developed countries regarding general visa and work permit arrangements. Finally, because of their greater social significance, regulations related to the migration of health professionals tended to be more restrictive than for IT professionals.

JEL Classification: F16, F22, I18, J44
Key Words: International Migration, Trade and Labour Markets, Professional Labour, Health Care Professionals
Email: Chris.Manning@anu.edu.au; Alexandra.Sidorenko@anu.edu.au

[§] Senior Fellow, Economics RSPAS ANU
[#]Research Fellow, National Centre for Epedemiology and Population Health (NCEPH), ANU. A. Sidorenko's contribution was supported in part by NHMRC Grant.

I. INTRODUCTION

The Group of ten ASEAN countries in Southeast Asia have developed an ambitious target for economic integration by 2020, including removal of all barriers to trade and investment in goods and services across the region. One related development has been calls for facilitation of the movement of professionals, providing for greater skill enhancement, between countries in the region.[1] Greater mobility of professionals has been increasingly viewed by member governments as a potential mechanism for increasing the returns to more open investment and trade. Thus, following the lead taken by national leaders in ASEAN (expressing the general desire for greater regional liberalisation at various regional summits), Labour/Manpower Ministers have expressed a commitment to "continue existing efforts to promote regional mobility and mutual recognition of professional credentials, talents and skills development".[2] Given recent commitments to accelerated services liberalisation, countries have agreed to draw up agreement to facilitate the mobility of skilled manpower, including professionals, by the end of 2005.[3]

This paper examines barriers to migration within ASEAN through estimates of the extent of regulation of temporary movement among professionals, and factors which underpin it, set in the context of efforts to deepen economic integration within the ASEAN region. With special reference to the health care and IT sectors, we seek to compare and contrast the regulatory regimes on

[1] Mobility in this context refers to temporary migration on a contract basis (usually one or two year visas) across national borders within the ASEAN region. Unless otherwise specified, we will use the terms (professional) migration or mobility in this sense throughout the paper.

[2] This statement was made at the ASEAN Labour Ministers Meeting in Brunei Darussalam in May 2004.

[3] The key meetings were the Bali Accord at the meeting of national leaders in 2003 and the Ministerial meeting on the integration of priority sectors at Vientiane in 2004.

international migration of professionals among ASEAN countries. This analysis is set in the broader context of the demand and supply, and international migration, of professional manpower.

Why the interest in the regulation of international movements among professionals? Three explanations are pertinent. First, several observers have drawn attention to the potentially large welfare gains to be reaped from greater international labour mobility, as the multilateral trade liberalisation agenda has become bogged down.[4] Second, increasing economic differentiation and participation of several countries in niche markets in the world economy is increasingly manifested in skill shortages and surpluses in the same occupational categories, often among neighbouring countries. This has increased the interest in facilitation of mobility both within regions, and with other countries. Within ASEAN, for example, Singapore needs more doctors, nurses, highly skilled managers, accountants and engineers,[5] while countries like the Philippines and even Indonesia would appear to have surpluses in several of these professional categories.

Finally, specifically related to services, another reason for studying the mobility of professionals relates to making progress in Mode 4, which deals with the international migration of labour on a temporary (contract) basis in both the World Trade Organization (WTO) General Agreement on Trade in Services (GATS) and its regional counterpart, the ASEAN Framework Agreement on Services (AFAS). Mode 4 has been increasingly viewed as complementary to other modes of service sector supply – cross-border supply to consumers abroad (eg. call centres), consumption abroad (eg. health tourism) and commercial presence abroad (Mattoo and Carzaniga (2003)). Gains from progress in liberalisation in all of these other 'modes' of supply depend partly on progress with Mode 4.

[4] See especially Winters et al. (2003) and the World Bank (2003).

[5] See for example, Singapore's Manpower 21 plan, http://www.mom.gov.sg

However, as might be expected, greater mobility of manpower across national borders, is not costless, either for receiving or sending countries. Displacement of local workers and downward pressure on wages in the former, and 'brain drain' resulting in productivity and public and social sector losses in the latter, are all highlighted in the literature.[6] Hence the need to regulate, in order to both facilitate migration and to seek to minimize its costs.

ASEAN is appealing as a case study for two reasons. First, it is a large regional grouping with a huge range in per capita incomes and associated economic structures. Second, ASEAN as a group have attempted to move beyond commitments made on a multilateral basis by adopting a framework of action based on the GATS (Bhatnagar and Manning(2005)).[7] Questions arise regarding the success of this approach, in this case with regard to encouraging the mobility of professionals between countries in the region.

While we are interested in the regulatory framework and it welfare implications for professionals (including highly skilled manpower) in general, the paper focuses on two sectors in particular: health care and the information (and communications) technology sector (IT). The two sectors were chosen partly because they represent close to opposite extremes in the extent of regulation. The supply of health care, much of it supported by the public sector, is typically highly regulated domestically, often with quite country-specific laws and guidelines, and overseen by powerful professional organisations. The regulations provide a powerful barrier to entry for foreign

[6] For a recent comprehensive treatment of these issues see Baldwin (2004) especially pp. 117-128, which includes a discussion of issues in the Philippines.

[7] The process has been unlike several other regional trading arrangements in the APEC region, such as NAFTA, the CER (Common Economic Relations between Australia and New Zealand) and several regional trade agreements in services in the 'Western Hemisphere', where migration arrangements have been negotiated outside the World Trade Organisation framework (Stephenson and Nikomborirak (2002)).

professionals. In contrast, employment in IT tends to almost entirely private (except for large public sector corporations and e-government), and is more atomistic. Where there is regulation of standards, it is mainly enforced by private sector organisations (such as Microsoft in the software industry) and individual entry (both domestically and from abroad) is easier over a wide range of skills and product types.

Finally, these sectors are of specific interest in the ASEAN context, bearing in mind that "e-ASEAN" and health care have been identified as two priority sectors for the completion of Mutual Recognition Agreements and/or harmonisation of technical standards. The guidelines for action include cooperation in training and skill transfer between more and less advanced ASEAN countries.[8]

The paper is based on data collected from publicly available official data sources, international, regional and country studies. Collection of data and fieldwork interviews with government, the private sector and professional bodies were conducted in six ASEAN countries by a team of researchers led by the two authors in the first two weeks of April 2005.[9]

---

[8] See the *ASEAN Framework Agreement for the Integration of Priority Sectors*, Vientiane, November 2004 (especially articles XIV and XIX in the 'Roadmap' for greater integration of ICT and health care sectors respectively).

[9] The data were initially collected for a report (*The Movement of Workers in Asean: The Health Care and IT Sectors*) completed for the ASEAN Secretariat, as part of the Australian Government funded Research on Economic Policy Support Facility (REPSF), located in Jakarta. The authors were co-team leaders in this research effort and prepared the final report. We would especially like to thank co-researchers Pradip Bhatnagar, Yongyuth Chalamwong, Philippa Dee, George Manzano and John Avila for their contribution to the study, the staff of REPSF and the ASEAN Secretariat that facilitated the study, and the many officials, professionals and academics who assisted the research. Background reports were prepared by individual researchers on the six major ASEAN economies and one report for the Lao PDR, Cambodia, Myanmar and Brunei. Much of the material for this paper was taken from these country reports. The normal disclaimers apply.

The second section of the paper examines the literature on the rationale for and impact of regulation, with special reference to the service sector. The third presents some information on economic, demographic and labour market characteristics pertinent to the migration of professionals and its regulation in the ASEAN countries. This sets the stage for the two main analytical sections which deal with the extent of regulation, both in general and among health care and IT professionals in particular. In the final concluding section, we draw some policy implications from the study.

II. WHY REGULATE MIGRATION AND HOW BEST TO DO IT?

International migration streams have increasingly consisted of temporary movements of more skilled and professional workers in recent years, principally between more developed countries that suffer shortages of skilled manpower and less developed countries (OECD (2002)). Widening wage differentials for professional workers between host and sending countries have contributed to these movements, even when sending countries suffer a comparative scarcity of skilled manpower at home. However, the effects of such movements are not unambiguously positive. This is especially true for professional workers whose basic education and training has often been funded publicly in sending countries.

The temporary movement of professionals both from Asia to more developed countries, principally to the USA, and within Asia have also grown rapidly in recent years (OECD (2003), Chalamwong (2004)). Within Asia, and especially East Asia, the movement of skilled and professional workers gathered pace in the 1990s and early 21st century, as demands for the highly skilled increased markedly in response to industrial restructuring and technological change. It has also grown in response to an increase in the share of services in GDP in the more developed countries of the region, such as in Japan, South Korea, Taiwan, Singapore and Malaysia (OECD

(2003)).[10] Both the increased demand for high quality services at home (for example, improved health care and education) and more intensive trade ('globalisation') in goods and internationally traded services have contributed to such movement (Iguchi (2002)). The imbalance between demand and supply of services has been driven partly by the ageing of populations in the more developed countries in Asia, following trends in Europe.

Regulations have multiple goals of seeking to both monitor and control number of migrants and their quality, as well as facilitating migration. Regulations are primarily enacted on a unilateral basis, although international cooperation also occurs on a bilateral, regional and multilateral basis. They include visa and work permit regimes (including the duration and cost of permits), and other quantitative restrictions on the deployment of foreign workers by firm, industry and occupation.[11] Restrictions on the out-migration of professionals are much less pervasive and the administration of migration tends to be left mainly to individuals, in contrast to the out-migration of unskilled workers, which is predominantly managed by governments and accredited recruiting agencies.

The extent of regulation varies across countries and occupations. Host countries concerns about potential labour market effects vary depending on the balance of supply and demand, and the quality, of professionals in the domestic market. Professional associations can play important roles in the regulation of both domestic and foreign supply of workers, although this role varies considerably across professions and according to the nature of services provided. Interventions tend to be less extensive for business professions. They are much more pervasive in case of health care professionals, for example, than for most other occupations and, within the health care sector, are

[10] The demand for foreign professionals has also risen quickly in China, as FDI has increased many fold over the past two decades.

[11] These include labour market tests and related restrictions, minimum standards of national language proficiency in host countries, and the requirement that foreign professionals transfer skills through training local employees.

more pronounced for doctors than for nurses. Greater regulation of the supply of foreign workers is particularly marked in areas related to national security and where the perceived social effects are high.

Regulations that seek to *facilitate* the migration of professionals focus on ensuring that individuals meet minimum standards in providing services, in accordance with host country rulings. Thus, for example, Mutual Recognition Agreements (MRAs) with respect to the educational qualifications (and sometimes professional experience), are designed to facilitate the mobility of professionals in regulated or partially regulated occupations. Medical doctors and nurses clearly belong to the first category. At the same time, IT professionals belong to the unregulated profession with no legal requirement for registration or licensing, or even a requirement to comply with professional standards set up by a corresponding professional body (as it is the case in the industry self-regulation). In this occupation, individual employees are evaluated by the market on the basis of their education and skills. Market instruments such as skill certification appear to be more appropriate, and government intervention in attempting to set up standards may be counter-productive. It can stifle innovation in the area and re-direct administrative resources to the area where labour markets are flexible and efficient. Instead, support of the industry-driven initiatives may be a preferred option. One important potential area of cooperation between developed and developing countries relates to helping the latter improve the quality of courses and educational institutions in order to meet the minimum standards required by regulation in more developed countries.

Regulation can be both generic and sector-specific (Sidorenko and Findlay (2003)). Generic forms relate to a wide variety of national administrative practices for controlling the inflow of non-nationals, and to a lesser extent the outflow of nationals. Regulation is especially important in the case of service delivery by individuals and enterprises. Thus domestic regulations seek to protect

domestic producers and consumers from market failure, resulting from market power, asymmetric information, negative externalities and other distortions. Sector-specific regulations involve assessment and maintenance of standards among professionals in receiving countries, and efforts to minimize brain drain and the losses of public sector investment in sending countries (as we shall see in the case of migration of health care professionals).

The effectiveness of regulation and strategies are likely to differ according to the stage of development. Developed countries with more functional legal systems and stronger bureaucracies could be expected to adopt less direct regulatory approaches – relying more on quasi-regulation (codes of conduct, industry group self-regulation) and efficient administration than on primary legislation.[12] In contrast, less developed countries could be expected to rely more on national laws and regulations. Since good regulation involves lower compliance costs and efficient administration, we might also expect guidelines to be more effective in developed countries. In the case of migration, this might be reflected in the proportion of illegal (unregistered) immigrants or to the low quality and poor supervision of service provision.

Heath care and IT

As noted, the heath care and IT sectors present close to extreme cases of regulation of professional standards and migration flows: health care professionals are highly regulated by governments, IT professionals are largely unregulated. One key aspect of health services makes it distinct from other service sectors: there is a direct link between the provision of health services and human health and well-being. Equity of access is an integral component of the health policy; inequalities of access to health care are particularly striking across countries. There are significant externalities, and large public investments and subsidies associated with the provision of health

[12] See Coughlan (2003): 18-19 for a typology of types of regulation, ranging from more to less intrusive.

services, especially for the poor. Professional medical services are more likely to be provided on a private basis than hospital services, except for the cases of salaried doctors employed by the government.

Despite high levels of regulation, there is considerable migration of health care professionals across national borders, both on a permanent and increasingly on a temporary, contract basis. 'Push' factors induce health care professionals to seek employment abroad: an excess supply of professionals relative to demand, inadequate remuneration, and a desire to work in a more conductive working environment, continue education and training, or to work in a better managed health system (Stilwell, et al.(2004), Hardill and MacDonald (2000)). "Pull" factors in the host countries relate to under-production of physicians/nurses relative to demand, or the low quality of services provided by nationals at the upper end of the market.[13] Remedies involve developing in-country strategies to address long-term shortages of qualified medical professionals, although there have been major problems in maintaining an adequate supply of nurses as per capita income rises in more developed countries (Martineau et al. (2004)).[14]

In the less regulated IT sector, the knowledge revolution has led to a sharp rise in work opportunities abroad for computer professionals. There has consequently been a significant movement of IT professionals across the world. Many of these movements are unregulated in terms of formal educational requirements and certification procedures in recipient countries. A large pool of engineering graduates combined with adequate English speaking skills, as well as proven

[13] Although we do not deal with regulation and costs of out-migration in this paper, it has been argued that current "brain circulation" has been asymmetrical, with developing countries losing valuable human resources and investment in human capital, both in the case of doctors and nurses (Marchal and Kegels (2003)).

[14] In the case of nursing, the problem is not merely underinvestment in building local capacity but the nature of the job – the long hours and demanding nature of the work.

competency in software services, has led to a large movement of Indian IT professionals to the West (Chanda (2003)).[15] At the same time, brain gain through knowledge networks is facilitated by the migration of highly skilled professionals (Meyer (2001)). Diaspora networks with the sending country are also common (Ouaked (2002)). Outsourcing across national borders (eg., call centres) through Mode 1 in IT services has also become a major source of employment in countries like India and the Philippines (The Economist (2004)).

III. DOMESTIC DEMAND AND SUPPLY AND MIGRATION OF PROFESSIONALS IN ASEAN

Before turning to the regulation of migration of professionals in the health and IT sectors, we first examine broad patterns of demand and supply and international migration in the ASEAN region. To simplify the discussion, the ten ASEAN countries are divided into three groups:

- Group I: high income Singapore and Brunei, and more developed Malaysia and Thailand which all have relatively open regimes with regard to the import of professional manpower, and are the major suppliers of health care through Mode 2 (consumption abroad) and to a lesser extent mode 3 (investment abroad). All of these countries have major strategies to become major exporters of IT services.
- Group II: The middle to low income countries, the Philippines, Indonesia and Vietnam which have more protective regimes with regard to professional manpower. They have largely domestic oriented IT industries which rely only to a limited extent, if at all, on the temporary in-migration of professionals. The Philippines is the major labour exporting country in the region, involving both skilled and unskilled manpower. Both

[15] Movement of generic information communication practitioners and students from India is a major subject of study in the literature on IT, including changing patterns of international deployment (Khadria (2001)).

Indonesia and Vietnam are also exporters of labour on temporary contracts, but these flows consist largely of unskilled workers All countries are heavily involved in, or seek to expand, the export of nurses.

- Group III: The low income countries of Cambodia, Lao PDR and Myanmar which import a relatively small number of professional workers. Cambodia is more open with regard to the import of professionals, mainly associated with FDI. All are exporters of unskilled manpower to neighbouring Thailand, and Myanmar exports a small number of professionals in the region, partly related to better English language skills.

The demand for service sector professionals depends to a considerable extent on the level, growth and structure of GDP. Services account for a significant share of the economy in the more developed countries of the region (Figure 1). Thus although the Singapore economy grew slowly relative to most other economies in ASEAN over 1999-2003, services accounted for about two-thirds of the economy and the sector's absolute value was roughly equivalent to that in the much more populous countries of Indonesia, the Philippines and Vietnam (Table 1). On the other hand, services made up a much smaller share of GDP (around one-third) in the more rapidly growing formerly closed socialist economies (Vietnam, Cambodia and the Lao PDR) in Groups II and III.[16] In absolute terms, the service sector in Vietnam was only around one-quarter of that in Singapore, and a tiny fraction of Singapore in the other two economies.

Other countries in ASEAN were intermediate between these extremes, although services were more prominent in terms of both output and employment in the Philippines (in both cases

[16] Growth rates are based on domestic currency data collected by the ASEAN Secretariat (www.ASEANSec.com). The data for Myanmar are indicative only.

close to 50% of the total).[17] Within the region, service sector exports were also much greater in Group I countries (Singapore, Malaysia and Thailand) and were very small in the less developed economies, Cambodia and Lao PDR (See Table 1).

Figure 1 and Table 1 about here

Demographic structure and change underpin the supply of manpower on the one hand and the demand for health care services in particular on the other (See Figure 2). Singapore and Thailand in Group I, and Vietnam in the second group of countries, are characterised by total fertility rate (TFR) of below the replacement level, and a higher share of people aged 65 and above than the rest of the region. In demographic terms, the higher income countries are following the pattern of the developed ageing societies and are likely to become net importers of labour when the population aging accelerates. The most dramatic changes have been in Singapore. The median age of Singapore's population (both residents and non-residents) had risen from 31.0 years in 1993 to 35.3 years in 2003. Malaysia is an outlier with still high fertility rates for a middle income country and the Philippines also records robust fertility rates that would allow the country to continue to supply workers to the future international labour market, if the education standards are maintained. The export potential among professionals of other high-fertility members in the lower income group, Lao and Cambodia, are limited partly because of inadequate access to education.

Figure 2 about here

The Domestic Demand and Supply of Health Care and IT Services

While most countries in the region have placed a high priority on the development of higher education to meet the growing demand for professional workers, the supply of both medical and IT

[17] Data on employment are taken from the ILO Labour Force Statistics Database, cited in the ADB *Key Development Indicators*, 2004.

professionals has not always been able to keep up with demand. On the demand side, the rise in per capita income is one long-term influence on demand especially for many discretionary health services whereas the demand for IT services has expanded dramatically among households and business in response to changing technology in the past decade.

***Health*.** In Singapore, where per capita income now exceeds that in many developed countries, the proportion of disposable income spent on health care can be expected to rise steeply over time. While all other countries are well behind Singapore on this score, the large and increasingly wealthy middle class in both Malaysia and Thailand are likely to demonstrate similar increased demand for health services in the future. There are already shortages in the medical workforce in Malaysia (of both doctors and nurses).

Expansion in the supply of medical professionals has occurred in the higher income countries in response to projected rising international demand for health services, met through response to the demand for higher quality health services by overseas consumers. In Thailand, one critical factor contributing to a sharp increase in the employment of doctors is the government policy to promote the country as a Medical Hub of Asia, whereas Malaysia promotes health care through the 'My Second Home Program', especially targeted at Middle Eastern Muslim patients. In Vietnam, and to a lesser extent Cambodia, the presence of foreign multinationals and their subsidiaries has been accompanied by an inflow of foreign skilled professionals and intra-corporate transferees.

As in many other developed countries, the shortage of nurses had emerged as a problem as demand tended to outstrip the supply in the higher income countries in ASEAN.[18] Nevertheless,

[18] For example, the output of graduates from Singapore's polytechnics with qualifications in health sciences (diplomas in nursing, physiotherapy, occupational therapy, radiography, etc) grew steadily around 10 per cent p.a. over 1998-

consistent with much higher levels of per capita incomes, Singapore and Brunei have the largest number of medical personnel per capita within the region (Figure 3). While there was not a large difference in the number of doctors per capita, there was a large gap to next two highest number of nurses per 100,000 people, which was only over 150 for Thailand and approach 150 in Malaysia. [19] In the second, middle income group, Vietnam ranks ahead of Indonesia whereas the Philippines rivals the figures recorded for Brunei and Singapore for both doctors and nurses per capita, although the picture changes when account is taken of Filipino working abroad (See Figure 3). In Group III, the socialist Lao PDR recorded a high doctor-population ratio similar to Vietnam, whereas the ratio was much lower in Cambodia; both countries recorded a higher ratios of nurses per capita than Indonesia and Myanmar.

Figure 3 about here

Information Technology. The IT sector has also expanded rapidly, as in other relatively rapidly growing countries in the Asia Pacific. Like health care, demand of IT services is closely related to levels of per capita income and ICT penetration. Figure 4 measures the dissimilarity between ASEAN countries on a set of technology and human capital parameters essential for development of knowledge economy. These selected parameters are telecommunications indicators (such as per capita penetration of fixed and mobile phones, internet users, PC users and gross tertiary enrolment rate). The cluster analysis technique allows us to group countries according to their similarities. What emerges is three or four broadly similar groups. However, there is a considerable degree of dissimilarity between the groups.

2003, less than the implied growth in demand of 20 per cent over the same period. A similar problem is evident in Malaysia

[19] In the case of doctors the figures provide only a rough picture given the greater importance that specialists tend to play in more developed countries. The full-Time Equivalent workforce measure is not available.

Figure 4 about here

In Group I, Singapore again stands out in terms of major telecommunications indicators and IT infrastructure, followed at some distance by Brunei, Malaysia, Thailand and the Philippines. The supply of IT services is much more limited among the group of lower income countries. In Malaysia, the domestic demand for IT workers is stimulated by the Multimedia Development Corporation (MDC) and its activities in the Multimedia Super Corridor (MSC). Although the Thai government has not played such a pro-active role in promoting the IT industry, it is also estimated that the demand IT professionals will increase rapidly.

Unlike high quality health care, some IT services (such as cellular phones) can be accessed by a significant share of the population at relatively low levels of income. Although far behind Malaysia and Thailand (and even the Philippines), the use of mobile phones and the internet in Indonesia and Vietnam, among Group II countries, was estimated to have increased rapidly in 2004.[20] There has been less dramatic increase in the demand for IT services and professionals among Group III countries in the region. Nevertheless there are some important developments. In Myanmar, for example, the movement of IT professionals to and from Myanmar appears to have picked up with the lifting of strict restrictions over the use of the Internet.[21]

International Migration

What patterns of international migration were accompanied by the excess demand for both health and IT professionals, especially in the more developed countries? In the four higher income countries, high levels of FDI and slower development of national talents than in some other

[20] Internet use was estimated at 38 and 43 per 1000 people in Indonesia and Vietnam, respectively, in 2003 (P3TIE, 2004:20).

[21] The Internet was hitherto available to just a privileged few in the bureaucracy, but is now available on a limited scale to anyone who asks for permission. A Software Technology Park was also set up by the government in 2002.

countries (such as Taiwan or Korea) help explain an imbalance between the domestic demand and supply of manpower in general. In contrast, in all the other countries in the region the deployment of professional manpower from abroad was small, limited partly by low demand in more capital and skill-intensive industries, and partly by stringent regulations governing the employment of foreign manpower (see below). With the exception of the Philippines, 'brain drain' has not been important, partly related to the low quality of domestic educational institutions (including English language skills). The lower income countries rely almost exclusively on domestic supply for manpower in the health sector. Several of the latter do, however, export nurses, with the Philippines being by far and away the largest supplier within ASEAN and beyond.

Group I. Singapore, Brunei, Malaysia and Thailand accept professionals from many countries, both developed and developing, in services, partly related to the diverse sources of foreign capital investment (Bhatnagar and Manning (2005)). Three of the four more developed ASEAN economies, Singapore, Malaysia and to a lesser extent Brunei, are significant importers of skilled manpower in the health sector. For example, data from the Singapore Nursing Board suggests that in 2004, 23 per cent of nurses were overseas residents, mainly from the Philippines and several private hospitals report a smaller but significant share of foreign doctors.[22] In Thailand, demand for foreign IT professionals in software and related industries was quite high whereas very few overseas professionals worked in the health care industry in Thailand. For example, there were only 31 foreign doctors and 15 foreign nurses registered as working, as opposed to 540 foreign IT professionals in 2002.

In Singapore, Malaysia and Thailand, local IT companies actively recruit foreign workers, especially from India (Manning and Bhatnagar, 2004). Currently, there are no centralised processes

[22] Two major public health care provider reported that 15 per cent of its doctors and 20-30 per cent of its nurses in 2004 were foreign-trained.

in place to recognise foreign IT qualifications — it is up to individual employers to investigate the qualifications of the foreign IT workers they hire. Migration of IT professionals to Malaysia is linked to the MSC-status operations overviewed by MDC. Similarly in Thailand it was reported that the number of foreign IT professionals is increasing, especially in Board of Investment promoted companies where foreign workers apply directly in response to job advertisements.

Group II. The middle income countries in ASEAN were mainly labour exporters, but also imported small numbers of professionals. The Philippines and Indonesia hosted a much smaller number of professional and managerial employees (a stock of approximately 10-20,000 in each country in 2002-2003), one-third or less the number working in Singapore, Malaysia and Thailand in the same years (around 50-60,000 in each of these three countries; Bhatnagar and Manning (2005): 181). Despite its large population base, Indonesia has not been a major player in the international migration of professionals in the Asia-Pacific region. A relatively small, low paid professional work force by international standards has been protected from international competition by restrictions on cross-border movements into the country, while language skills and the quality of professional education at home have limited opportunities for out-migration.

In the health care sector, the Philippines is closed to foreign doctors and nurses, and in Indonesia a miniscule number of 199 foreign doctors were recorded as employed mainly for work as administrators and managers in several foreign hospitals and teachers in overseas twinning programs for nurses in 2004.[23] While the health sector in Vietnam has traditionally been closed to

[23] A small number of foreign doctors from Singapore, Australia and other countries visit on a temporary basis ostensibly as advisers to Indonesian doctors but are reported to be engaged in specialist operations mainly in foreign hospitals.

foreign health professionals, a limited number of foreign health workers have been allowed to enter as part of FDI in health services.[24]

In IT, the Philippines has a comparative advantage compared with Indonesian and Vietnam, owing to better English language skill and general educational standards, and hence almost all of these services are provided by Filipino nationals rather than foreigners. Neither Indonesia or Vietnam supply significant numbers of IT graduates to work in other abroad, nor are there internationally oriented investments at home that provide significant opportunities for IT professionals from abroad.

Group III. In Group III countries, the movement of professional into and out of the country was reported to be even smaller than in Group II countries. Cambodia differed considerably from Lao PDR and Myanmar owing to relatively robust growth in FDI since the late 1990s. The main movement has been of foreign skilled technicians from Hong Kong, Taiwan and China into garment factories owned by nationals from these countries in Cambodia. In recent years, Myanmar has emerged as a source of semi-skilled seafarers with the government actively encouraging its citizens to go overseas as maritime workers. Foreign workers entering Myanmar comprise a tiny but growing number of managers, investors and intra-corporate transferees from Singapore, Malaysia and Thailand.

IV. REGULATION AND THE INTERNATIONAL MIGRATION OF PROFESSIONALS: GENERAL BARRIERS AND REGULATIONS

Temporary migration of skilled workers in ASEAN discussed above occurs within the regulatory framework that differs across countries. Major regulatory measures affecting

[24] The number of foreign medical personnel in these 12 foreign clinics was estimated to be around 200 in 2004.

international mobility are visa requirements and procedures, labour market tests necessary to justify the need for employment of a foreign professional, and problems arising from the lack of recognition of professional training and experience obtained in a foreign country. These are the policy impediments facing those individuals who decided to make a move and seek temporary employment in another country. Other obstacles such as language barriers, cultural difference and social disruption are dealt with by an individual contemplating foreign employment. The social costs of adaptation to a new environment are harder to internalise. They are weighted in the individual decision-making process against the benefits of higher wages, better job prospects and other life-cycle considerations that a professional with marketable skills makes when deciding to move to another country for the purpose of temporary employment.

The international market for professional labour is mediated by various intermediary firms such as recruitment agencies, overseas employment boards etc. Some of these agents may be able to gain a non-trivial degree of market power in certain segments of the market, serving as gate-keepers for foreign entry. These are largely unregulated activities, and the market power results in high fees charged to the individual foreign professionals. Private sector recruitment and intermediating practices, while important, are harder to quantify as the systemic data collection is not possible. In the remainder of the paper we will focus on government policies, regulations and institutional settings impacting the international mobility of professionals in the ASEAN region.

Government policies, manpower planning and professional training

As discussed above, domestic policies with respect to movement of professional labour by and large depend on both static and dynamic considerations in the local labour market, that is, on both current and projected supply and demand conditions. As we have noted above, temporary migration policies are a part of domestic workforce plans that include training, continuing education

of local staff and measures to attract foreign talent in some of the more developed countries in ASEAN (such as Singapore and Malaysia) but much less so in the lower income countries.

Human capital development, like technological infrastructure, also varies across the region. Countries with the developed post-secondary education sector, especially its private component, are better positioned to respond promptly to the labour market imbalances in the knowledge-based sectors. Examples are the mushrooming private IT colleges/training and nursing programs in the Philippines and Malaysia, and expansion of similar activities in Thailand. The capacity to access the international market depends, however, on the quality of education which varies by institution. Private sector involvement in medical education has also been significant in all these countries, but the standards of the MD degrees are under much stricter control of the local Medical Councils. Nursing training programs have to be accredited with national accreditation boards, with graduates having to sit for a qualifying, registration or licensure exam that assures the quality of education.

International quality differential in tertiary and professional degrees is one of the contributing factors to the limited international recognition of professional education and training. Legitimate concerns for patients safety and well-being necessitate the local language proficiency requirement often imposed on foreign medical practitioners. Language presents an important barrier for foreign-trained professionals to supply services in the recipient country even if the standards of clinical practice are not very different. We have found that in countries where English is one of the state languages and a language of instruction in tertiary system (Singapore and the Philippines), the mobility of health professionals is greatly facilitated. The future prospects of Myanmar in supplying nurses to other ASEAN countries and globally are enhanced by relatively good command of English. At the same time, lack of English language skills is a major impediment to the international mobility of Thai and Indonesian nurses. The wider mobility of ASEAN nurses is also influenced by a language factor, with non-English speaking recipient countries (such as Japan and

the Netherlands) recruiting nurses through various bilateral agreements, having to offer an appropriate language training of nurses before their deployment in the local health system.

Accreditation of degrees and recognition of previous training is of a significantly greater importance in health care services than in the IT which is mostly unregulated or self-regulated industry. The IT industry is so diverse and dynamic that the development of meaningful industry-wide standards seems to be unfeasible. Recognition of degrees is undertaken by the industry, and the third party competencies certifications (mainly through private vendors such as Microsoft, CISCO, etc) are valued increasingly by employers.

To date, very little has been achieved in developing a common set of professional standards or competencies, in both sectors in ASEAN. The area with the greatest potential for such a joint effort is nursing. The role of the governments is to create transparent regulatory conditions for cooperation between the professional regulators, educators and private sector so that the nursing training and their future employment could become internationalised. Countries like Indonesia, Vietnam, Myanmar and Cambodia are still to provide a regulatory framework and constitute a nursing board which sets up procedures for accreditation and guidelines for employment approval of foreign nurses. Joint curriculum development, language training, partnership with hospitals for clinical practice, exchange of nurse educators and trainers, development of core competencies and standards all could present a venue for cooperation within the ASEAN and beyond.

International commitments (GATS and AFAS)

The rules regulating the entry of foreign professionals are rarely imposed on a Most-Favoured Nation (MFN) basis (i.e., in a non-discriminatory fashion between the foreign nationals). Among the ASEAN members there are often preferences for labour from “traditional sources” (for example, Brunei’s preference for Singaporean and Malaysian workers). Instruments for liberalising

temporary immigration of workers are unilateral actions by the governments, bilateral agreements and regional/ multilateral agreements such as the WTO General Agreement on Trade in Services (GATS) and the ASEAN Framework Agreement on Services (AFAS). In this paper we use current level of commitments made under GATS and AFAS to construct the measure of the openness to mobility of professionals in each of the ten countries.

GATS and AFAS schedules contain horizontal (cross-sectoral) commitments on Mode 4 made for intra-corporate transferees (including managers, executives and specialists), and for business visitors.[25] Based on the horizontal commitments on Mode 4 in the current GATS schedules, we have constructed a policy index measuring the scope and the depth of commitments in Mode 4, including the committed duration of stay and additional extensions, for the ASEAN countries that are GATS members.[26] We have also calculated the index for the limitations to Article II (MFN) listed in the GATS schedule and whether these limitations extend to high-skilled foreign workers. The results are presented in Figure 5. The index ranges from 0 (most restrictive/ no commitments) to 1 (most liberal commitments within the group of ASEAN countries).[27]

Figure 5 about here

Note that the more developed countries led by Malaysia have made the most extensive horizontal commitments on Mode 4 out of all ASEAN member countries, and that Indonesia is well ahead of the Philippines and Vietnam. Malaysia has maintained its existing MFN exemptions based on regional, religious and cultural compatibility (note that these exemptions are applicable to

[25] Only Malaysia has made an additional commitment for professionals (defined as persons with necessary academic credentials, professional qualifications, experience and expertise, recognised by and registered with appropriate professional bodies in Malaysia).

[26] For the non-WTO members (Lao and Vietnam), we used the corresponding AFAS schedules to construct the index.

[27] The components of the index and weights given to each item are summarised in Appendix 1.

unskilled workers only). Less developed ASEAN members such as Myanmar, Cambodia and Lao did not schedule any MFN exemptions and scored maximum on this count.[28]

Actual in-migration rules and procedures (Business Visitors and Work Permits)

Temporary movement of professionals in the ASEAN takes two main modes: short visits that fall into the business visa category, and longer term employment contracts that require issue of a working permit or an employment pass. Short-term business visits and movement of managers, executives and employees as intra-corporate transferees associated with commercial presence (Mode 3) are the most liberalised types of Mode 4 movements, both within GATS and AFAS (Manning and Bhatnagar (2004)).

GATS commitments represent the lower bound of the actual degree of liberalisation of immigration policy, hence it is important to evaluate actual policies and procedures governing the movement of people. Using the data collected by Manning and Bhatnagar (2004) on rules and procedures for obtaining business (non-immigrant) visas and work permit regimes, we have constructed an index measuring the degree of openness in these two categories (applied to all sectors, including the two sectors considered in the current paper).

The Business Visa index takes into account factors such an average cost of a visa (single and multiple), whether the double-entry visa only is issued instead of a multiple entry, the complexity of the application procedure (including the number of pages on the form, number of entries to complete, number of supporting documents), visa processing time, an additional security deposit requirement for a sponsor, and concessions to ASEAN member countries if any.[29]

[28] In part this is because the lower income countries did not anticipate unskilled migrants, among whom religious and ethnic differences with the local work force tend to be of greater concern for host country governments.

[29] As for Figure 5, see Appendix 1 for details.

Similarly, the Work Permit regime has been evaluated for ten ASEAN countries, including the number of agencies involved in issuing the work permit, average processing time, validity, an employer to be a legal body, skills-transfer requirement, a pre-employment requirement, foreign worker levies (unskilled, skilled and highly skilled), and MFN concessions if any.

The resulting indices for business visa (BV_ind) and work permits (WP-ind) are presented in Figure 6, ranging from 0 (most restrictive) to 1 (most liberal within the group of ASEAN countries).

Figure 6 about here

The more developed countries score better, on average, with respect to the business visa index, but the pattern of cross-country differences is not so clear with regard to work permit. Perhaps surprisingly, Vietnam emerges as the country that has succeeded in liberalising their rules and procedures pertaining to the business travel and work permits applicable to other ASEAN members, followed by Malaysia, Brunei, Philippines and Singapore.[30] While Singapore scores just below an ASEAN average of 0.55 in the work permit index, its procedures and rules pertaining the employment pass procedure are among the most transparent.

However, in general the inward movement of professionals seems to be the most restricted in lower income countries, notably Indonesia, Cambodia, Laos and Myanmar. All of these countries require an employer hiring a foreigner to ensure that some capacity-building and skills transfer activities are conducted to eventually replace the foreigner with a local staff. Other barriers to the

[30] Note that the "preference for traditional sources" of labour that is in effect a restrictive condition for an inward mobility of a professional from an excluded nationality serves as a liberalising measure in calculating the within-ASEAN index (Brunei and Malaysia provide such an example).

inward mobility of professionals include the minimum salary requirement[31], levies for employment of a foreign worker, restrictions on the employment (linked to a specific company or a geographic location/office, as in Thailand), the requirement for pre-employment with the company, a minimum education/job experience requirement, lack of recognition for the education/professional training, as well as economic needs test and language requirements.

V. THE REGULATION AND THE INTERNATIONAL MIGRATION OF PROFESSIONALS: BARRIERS IN HEALTH AND IT SECTORS

The fundamental difference in practices applicable to the health and IT professionals is that of a quite highly regulated versus an unregulated occupation (Sidorenko (2003)).

HEALTH SERVICES

In case of health professionals such as doctors and nurses, a professional body such as a local Medical Council or Nursing Board (where constituted– not all countries have established nursing boards) are involved in the pre-employment confirmation of the applicant's qualifications and skills. Applicants are required to be registered with their home professional councils/boards. If the professional training and experience of the applicant are recognised, a temporary registration/ practicing certificate is issued that allows the health practitioner to practice the occupation in the receiving country.

As a rule, the Ministry of Health is involved in assessing the applications from the hospitals (employers) that sponsor the foreign professional, and in most cases the unavailability of a local specialist to fill the post should be confirmed before the approval to hire a foreigner is given.

[31] For example in Singapore, the minimum salary requirement applies to S and Q Passes, for professional and skilled/managerial manpower.

Economic needs tests are often time consuming and create an extra cost for an employer through additional advertising and administrative expenses as well as through the delays in making an offer to the foreign applicant. After the approval of the Ministry of Health is obtained, the normal immigration application procedures follow, with the length varying widely by country.

International commitments in the health sector (GATS and AFAS)

International commitments on the movement of health professionals under GATS and AFAS are scheduled under 1. Business Services – A. Professional services

- (h) medical and dental services CPC 9312
- (j) Services provided by midwives, nurses, physiotherapists and para-medical personnel CPC 93191.[32]

Based on the summary of GATS commitments in professional health services and health related (hospital) services (and the 4th package of AFAS commitments of those ASEAN members that are not in the WTO), we have constructed an index of liberalising commitments under GATS/AFAS to compare ten ASEAN members within the group. The resulting health index was calculated as an average of the horizontal index, the MFN index, and the health-specific index (measured by the degree of commitments in three sub-sectors), and the index of commitments in all professional services sectors based on Manning and Bhatnagar (2004): Table 3. The resulting index is labelled Health_ind.[33]

Actual policies, registration and licensing requirements and procedures

[32] Also relevant are commitments made in Sector 8, Health Related and Social Services (A. Hospital services, CPC 9311) for Mode 4.

[33] Note that in all cases, sectoral Mode 4 commitments were limited to horizontal sections, and the health policy index reflects the degree of liberalisation in other modes of trade in health services, rather than only through the movement of professionals.

Before discussing the findings on the health care index related to GATS and AFAS, it is useful to look at various registration and licensing arrangements. A number of restrictions apply. First, in terms of the professional registration of doctors and nurses, the language requirement (such as in Thailand) often serves as a major barrier to the recognition of the previous training, even if the standards of clinical care are similar. The language requirement is usually justified on the basis of a consumer (patient) protection argument. Second, an extreme form of discrimination includes citizenship requirement to practice an occupation (permanent residency requirement is a milder for of such a limitation). Examples are Indonesia and the Philippines[34]. In the latter case, the existing regulatory framework requires that professional practice, including health professionals, be limited to Filipinos. Third, for certain cases, the regulatory regime uses an economic needs test for foreign doctors and nurses under rules of reciprocity.

Finally, among several ASEAN members there are cross-sectoral quantitative restrictions on foreign employment. In Thailand, the number of foreign workers allowed in a company is determined by its registered capital: 2 million baht per 1 foreign worker with a maximum of 10 million baht (that is, a cap of five foreign workers). In Vietnam, the limit number of foreign workers is 3% of a firm's fulltime workforce, a significant constraint to the entry of foreign professionals into the country. Cambodia's labour regulations place a cap of 10% on the number of foreign workers in a firm. This condition is restrictive for the health sector in particular, with foreign hospital chains attempting to establish commercial presence not being able to employ doctors with the required level of expertise and specialization, if it is not available locally

[34] In the case of Indonesia, foreign doctors and nurses are not permitted to practise in local hospitals (with the exception of temporary service provision as senior medical officers or medical specialists in corporations in selected sectors such as in oil, gas and mining).

To compare policy impediments with other administrative barriers such as the complexity of the registration procedure for foreign specialists in health (here, doctors) as well as the broader policy environment with respect to attracting the foreign labour, we calculated medical practitioners' registration procedure index. The registration index (Reg_ind) is based on the set of criteria such as the requirement of registration, acceptability of English language training, the number of accepted foreign medical degrees if any, the number of accepted ASEAN degrees, whether an examination is required, what language it is conducted in, whether the temporary registration can be granted, the permanent residency or a citizenship requirement to practice medical occupation, and whether the foreign doctors are permitted to practice in public hospitals. Comparison of scores on this measure, and Health_ind discussed above is shown in Figure 7.

Figure 7 about here

Figure 7 shows that there is no clear relationship between the general index of international barriers to health professionals (Health_ind) and per capita incomes in ASEAN. One Group III country, Cambodia, has scheduled more liberalising commitments in professional medical and health services in its WTO accession schedule than the rest of the ASEAN. However, as might be anticipated, Singapore, Brunei and Malaysia all appear to have the more liberal policy towards the foreign medical professionals as reflected in their commitments and actual professional registration procedures. For most of the other ASEAN countries, professional health services have been shielded from foreign competition by stringent registration procedures (including the local language requirement such as in Thailand and citizenship requirement in Indonesia and the Philippines).

Regional progress with AFAS has been limited at most, with no additional liberalising steps undertaken in the area of professional health services to date. Bilateral discussions that include temporary movement of health professionals are undertaken by a number of ASEAN members. Malaysia has commenced bilateral free trade area (FTA) negotiations with Japan, USA, Australia,

New Zealand, India and Korea. Based on the latest publicly available information, most of the proposed agreements are likely to include an item on mobility of professionals and human capital development (including through twinning education programs and enhanced recognition of degrees), and collaboration in IT-intensive sectors (including outsourcing).[35]

ASEAN Importers of Health Professionals

Singapore has needed to recruit foreign doctors and nurses in recent years because local training institutions have not been able to meet demand. In addition to meeting the requirements for an Employment Pass or S Pass, foreign nurses must meet the requirements for registration by the Singapore Nursing Board, doctors must meet the requirements for registration by the Singapore Medical Council or Traditional Chinese Medicine Practitioners Board, and dentists must meet the requirements for registration by the Singapore Dental Council. The S Pass does not allow the migrant worker to bring in a spouse or dependant children. Depending on qualifications, it is possible for a foreign recruit to exceed the S$2,500 per month threshold to be eligible for a Q1 pass that allows the foreign worker to bring in dependents. In most cases, starting salary for the foreign-trained nurses is much lower, and the no-dependants rule applies

In Malaysia, foreign specialists can be employed in private hospitals and in public hospitals with fewer than 2 specialists, with the approval of MOH. Private GPs are not allowed, but there are foreign medical officers (MOs) in government clinics. A basic medical degree and at least 3 years (usually 5 years) of clinical experience is required. Foreign-trained nurses from the prescribed seven countries (Myanmar, Philippines, India, Pakistan, Bangladesh, Albania, and Indonesia) should obtain a Temporary Practice Certificate (TPC) from the Nursing Board Malaysia, only then are they allowed to be employed in a private hospital.

[35] Recent bilaterals concluded by the ASEAN members include the New Zealand - Singapore Closer Economic Partnership (ANZSCEP) (2000), Japan-Singapore new-age economic partnership agreement (JSEPA) (2000), the US-Singapore FTA (2003), US-Vietnam FTA (2000), Singapore-Australia FTA (SAFTA) (2003), and the Thailand-Australia FTA (2005). The New Zealand – Singapore ANZSCEP has undertaken to facilitate the establishment of dialogue between experts in the priority areas of professional health services with a view to achieve recognition of professional qualifications or registration, although no additional liberalising measures have been achieved yet.

IT SERVICES

Impediments to the mobility of IT workers are not nearly as restrictive as those in the health care sector, as there are no professional registration and licensing requirements in IT. Private market seems to be efficient in assessing the quality of the applicants based on their education and experience.

International commitments in the IT sector (GATS and AFAS)

International commitments on movement of IT professionals under GATS and AFAS are scheduled under 1. Business Services – B. Computer and Related Services:

a. Consultancy services related to the installation of computer hardware (CPC 841);

b. Software implementation services (CPC 842);

c. Data processing services (CPC 843);

d. Data base services (CPC 844), and e. Other (CPC 845+849).

Commitments made in value-added telecommunications services (CPC 7523 and 7529) were also included, as these sectors are IT-labour intensive. There has been some success in deepening the liberalisation of IT services through AFAS compared to the GATS. In the 4th package of commitments under AFAS, Indonesia, Malaysia and Thailand have offered GATS-plus measures on Mode 3, by removing or relaxing a foreign ownership limit in the Computer and Related Services sub-sector. A policy index reflecting the scope and depth of GATS/AFAS commitment and the actual telecommunications policies based on Findlay et al. (2005) was constructed (labelled IT_ind). The policy index was supplemented by the general "inward mobility" index (labelled In_ind) reflecting cross-sectoral policies towards manpower planning in the high-skills sector, policies to develop knowledge-based economy, policies to ensure continuous upgrade of skills of

workers, development of IT competencies and promotion of IT sector through technology parks etc, pro-active overseas recruitment, and policy priority attached to the high-skilled sector and R&D.

The results are presented in Figure 8. Again the more developed countries (Singapore, Brunei and Malaysia) have adopted more liberal policies towards the in-migration in general, although much less so for IT professionals in particular. Conversely, although Thailand and Indonesia scored low on the general index, both scored highest on the IT index. The Philippines score was low on both IN_ind and IT_ind, and close to the indices for Vietnam and the three lower income countries.

Figure 8 about here

Facilitation of international mobility of health professionals through Mutual Recognition Agreements (MRAs)

As noted in Section II, mutual recognition agreements seek to facilitate the mobility of professionals, and the potential contribution of these agreements is likely to be very different between health and IT professionals. Two important developments in the area of MRA are (i) the discussion of skills standardisation for general nurses, launched by Indonesia in the APEC forum and (ii) the ASEAN discussion of the MRA in nursing through the Medical Association of South East Asian Nations (MASEAN). The first draft MRA on nursing in ASEAN has been circulated for comments from ASEAN members. In the preliminary draft, the agreement leaves the decision on recognition of foreign nursing qualifications to a nursing board/council in the host countries. The foreign-trained nurse is also required to work with a local nurse in the host country. As long as the registered nurse continues to be registered in her home country she can practice as a nurse in a host country (under supervision of a local nurse) without the need to be fully registered with the host country nursing board/council. This arrangement seems to lessen the impact of the local language

requirement, in those cases where another language (such as English or Chinese) is appropriate for the actual working conditions of a foreign nurse.

These efforts within ASEAN are likely to be supported by initiatives within the wider APEC community, in which the ASEAN nationals are members. An APEC nursing skills standardisation exercise is ongoing, with the results of the report expected at the end of 2005. The project objective states that in order to implement MRA on nursing, the standards of nursing skills in a number of APEC economies have to be examined. Both supply of and demand for nurses is to be evaluated. The nursing education curriculum will also be identified and compared. The results of this APEC project should facilitate an assessment of action points in the area of nursing education in individual countries in the region. Even if the regional harmonisation of standards in nursing education is still a long way off, such an examination will provide a useful vehicle to identify deficiencies in theoretical training or in clinical practice. It would include evaluation of the syllabus, the number of contact hours and the core competencies achieved at graduation.

Recognition of professional qualifications and registration has been covered in the New Zealand-Singapore Closer Economic Partnership (ANZSCEP) signed in 2000. Parties have identified dentists, dental technicians, doctors, nurses, and midwives as the priority areas with a view to the achievement of early outcomes on recognition of professional qualifications or registration. There is also discussion on negotiating mutual recognition agreements of qualifications and registration procedures between Singapore and Australia as part of the bilateral Singapore-Australia FTA , with services of pharmacists and dentists identified as the areas of mutual interest.

In the process of development of an ASEAN approach to MRA in nursing, the experience of a Trilateral Initiative for North American Nursing implemented in 1994 could also be taken into account. In a collaboration between nursing groups from NAFTA (USA, Canada and Mexico), a

comprehensive study of nursing education and practice has been undertaken and recommendations drawn aimed at developing mutually acceptable criteria for licensing and certification.

The most successful experience in harmonisation of nursing standards to date has been demonstrated in the English-speaking Caribbean countries (Oulton (2003)). Over the past seventeen years, a system of regional examination for nurse registration has been set up, with the professional registration recognised across countries in the region. In the process, the examination procedure was improved (based on the Canadian model), a pool of qualified nurses serving as regional examiners was established, and a common set of criteria was developed and adopted to accredit regional nursing training programs. Other examples of regional cooperation in developing nursing standards are East, Central and South African College of Nursing (ECSACON) and the European experience resulting in mutual recognition for medical doctors, generalist nurses and midwives among other professionals.

VI. DISCUSSION AND CONCLUSIONS

This paper has compared and contrasted the regulatory regimes with respect to international migration of professionals among ASEAN countries with special reference to the health care and IT sectors and in the context of efforts to deepen economic integration with the ASEAN region. We outlined the intra-regional patterns of professional migration in these sectors and analysed the impact of the regulatory regimes on the actual flows.

We have found that the intensity of regulation is broadly inversely related, and intensity of migration positively related, to the level of economic development within ASEAN, although there are some important exceptions. The more developed countries (Singapore, Brunei and Malaysia) have adopted more liberal policies towards the in-migration in general (business visas and to a

lesser extent work permits, and horizontal commitments under AFAS), and with respect to registration of health professionals and general in-migration policies towards high skills sectors. In contrast, the less developed countries often made commitments allowing professional movements into their countries, through GATS or AFAS, but at the same time maintained relatively restrictive visa and work permit, and registration regimes to outsiders. Thailand, Vietnam and Indonesia tended to be intermediate on both, and the Philippines score was low. Poorer, more recent entrants to ASEAN and more recent participants in international trading arrangements (Cambodia, Vietnam and even Myanmar), are potentially more open than Indonesia and the Philippines, where nationalist 'baggage' limits potential gains. This partly related to latecomer 'learning effects' through the international commitments supporting and channelling the domestic reform in the former countries, and a greater political focus on pressing labour market problems in the latter countries.

There is substantial sectoral variation in the extent and type of regulation. Regulation is much more important for both sending and receiving countries in the sectors where social and distributional impacts are large (e.g., in health care). All countries in the region tend to have more open regimes with regard the movement of temporary migrants in the IT sector than in health care. Because of the social dimension of health care, professional bodies regulate standards of national and overseas professionals, and in several of the countries restrictions on deployment of foreign professionals severely limit their access to the domestic market. Accreditation and mutual recognition agreements are also more important in health than IT, whereas there are no professional registration and licensing requirements in IT.

The paper has sought to emphasise differences across countries in ASEAN in policies and national circumstances, which underpin migration among professionals in the region. Inevitably, many of the contrasts are related to the stage of economic development, and associated

demographic, social and institutional patterns across countries in the region. Size, openness and specific historical circumstances also play a part.

We sought to document the main restrictions to mobility of professionals in general and in the two sectors specifically. Besides restrictions related to trade policies, other barriers to the inward mobility of professionals include the minimum salary requirement (Singapore), levies for employment of a foreign worker (several countries), restrictions on the employment (linked to a specific company or a geographic location/office), the requirement for pre-employment with the company, a minimum education/job experience requirement (Indonesia), lack of recognition for the education/professional training, as well as economic needs and labour market tests applied in several countries. The language requirement is a major barrier, and the citizenship requirement is even more restrictive, for the professional registration of doctors and nurses. However, it was also found that the rules governing inflow of IT professionals in ASEAN countries are not as restrictive as those for the health care professionals, due to the unregulated nature of IT employment. At the same time, private costs associated with job search and gaining foreign employment appear to be higher in the IT sector.

Removal of the barriers to inter-regional mobility in health care and IT both have potential to bring major benefits, although appropriate policies differ between these two sectors. Recommended policy measures include standardising visa and work permit regulations for professionals across the region (including short-term entry of independent service providers); improved education and professional standards (using the recent APEC and ASEAN initiatives to examine nursing standards and develop a regional MRA in nursing); overcoming the language barrier to mobility by allowing foreign-trained doctors/nurses employed in export-oriented hospitals to be exempt from the language tests for the temporary registration purposes; promotion of industry

self-regulation and certified training programs in IT; and an improvement of data collection on international stocks, and flows of professional manpower.

REFERENCES

Baldwin, R. (2004) *International Migration and Economic Development*, Cheltenham, Edward Elgar.

Bhatnagar, P. and C. Manning (2005) 'Regional Arrangements For *Mode 4* In Services Trade: Lessons from the ASEAN Experience', *The World Trade Review*, 4(2): 171-199.

Chalamwong, Y. (2004) The Migration of Highly Skilled Asian Workers in OECD Member Countries and its Effects on Economic Development in East Asia, Unpublished paper, presented at an *Experts Seminar*, OECD, Paris, June 10-11.

Chanda R. (April 2003) "Movement of Service Suppliers and India. A Case Study of the IT and Health sectors", Working Paper No. 206, Indian Institute of Management, Bangalore.

Coghlan, P. (2003) 'The Principles of Good Regulation' in A. Sidorenko, A. and C. Findlay, Eds. (2003). *Regulation and market access*. Canberra, Asia Pacific Press, 17-39.

ESCAP (2003) Information Technology in the Greater Mekong Subregion, United Nations, Bangkok (www.unescap.org/tid/projects/gms.asp)

Findlay, C., R. C. Lee, A. Sidorenko and M. Pangestu (2005). Telecommunications, in *Competition Policy in East Asia*, E. M. Medalla (eds). London, Routledge**:** 111-144.

Hardill, I. and S. MacDonald (2000). "Skilled international migration: The experience of nurses in the UK." *Regional Studies* **34**(7): 681-692.

Iguchi, Y. (2002) 'The Movement of the Highly-Skilled in Asia: Present Situation and Future Prospects in OECD (ed.), *Migration and the Labour Market in Asia : Recent Trends and Policies*, Paris, Organisation for Economic Co operation, and Development, 29-57.

Indonesia. The Centre of Development and Application of Technology [P3TIE], BPPT (2004) *Indikator Teknologi Informasi dan Komunikasi Tahun 2004*, Jakarta.

Indonesia. Ministry of Communications and Information (2004). *Penyusunan Direktori Penyelenggaraan Pendidikan dan Pelatihan ICT/Telematika*, Jakarta.

Khadria, B. (2001). "Shifting paradigms of globalization: The twenty-first century transition towards generics in skilled migration from India." *International Migration* **39**(5 Special Issue 1): 45-71.

Manning, C. and P. Bhatnagar (2004). Liberalizing and Facilitating the Movement of Individual Service Providers under AFAS: Implications for Labour and Immigration Policies and Procedures in ASEAN, Draft Report REPSF Project 02/004, ASEAN Secretariat, Jakarta.

Marchal, B. and G. Kegels (2003). "Health workforce imbalances in times of globalization: brain drain or professional mobility?" *International Journal of Health Planning & Management* **18**(Suppl 1): S89-S101.

Martineau, T., K. Decker and P. Bundred (2004). ""Brain drain" of health professionals: from rhetoric to responsible action." *Health Policy* **70**(1): 1-10.

Mattoo, A. and A. Carzaniga (2003) (eds.). *Moving People to Deliver Services*, OUP, The World Bank.

Meyer, J. B. (2001). "Network approach versus brain drain: Lessons from the diaspora." *International Migration* **39**(5 Special Issue 1): 91-110.

OECD (2002). International mobility of the highly skilled. Paris and Washington, D.C., Organisation for Economic Co-operation and Development.

OECD (2003). Migration and the Labour Market in Asia : Recent Trends and Policies. Paris, Organisation for Economic Co operation and Development.

Ouaked, S. (2002). "Transatlantic roundtable on high-skilled migration and sending countries issues." *International Migration* **40**(4): 153-166.

Sidorenko, A. (2003). “Regulatory impediments to international trade in health services”, in A. Sidorenko and C. Findlay (eds.), *Regulation and market access*, Canberra, Asia Pacific Press: 276-323.

Sidorenko, A. and C. Findlay (2003). “Overview – Domestic regulatory reform and trade liberalisation”, in A. Sidorenko and C. Findlay (eds.), *Regulation and market access*, Canberra, Asia Pacific Press: 1-16.

Stephenson, S. M. and D. Nikomborirak (2002) ‘Regional Liberalisation in Services’, in S. Stephenson, C. Findlay and S. Yi (eds.), *Services Trade Liberalisation and Facilitation*, Canberra, Asia Pacific Press, 88-124.

Stilwell, B., K. Diallo, P. Zurn, M. Vujicic, O. Adams and M. Dal Poz (2004). "Migration of health-care workers from developing countries: strategic approaches to its management." *Bulletin of the World Health Organization* **82**(8): 595-600.

The Economist (2004) “A Survey of Outsourcing”, November 13-19,2004

Winters, A., T. L. Walmsley, Z. K. Wang and R. Grynberg (2003) ‘Liberalising Temporary Movement of Natural Persons: An Agenda for the Development Round,’ *World Economy* 26(8): 1137-1161.

World Bank (2003) *World Economic Prospects*, Washington D.C. [Chapter 4: ‘Labor Mobility and the WTO: Liberalizing Temporary Movement,’ pp. 143-176].

Appendix 1. Indicators and weights used in the calculation of indices

Index	*Indicator*	*Value*	*Weight*
Horizontal index calculation (Hor_index)			
Categories for which horizontal commitments on Mode 4 are made in GATS SC			
	Business visitors	0 or 1	0.25
	Professionals	0 or 1	0.25
	Intra-company transferees index	[0;1]	0.50
Intra-company transferees index			
Categories for which horizontal commitments on Mode 4 are made in GATS SC: Intracompany transferees			
	Manager	0 or 1	0.11
	Executive	0 or 1	0.11
	Specialist	0 or 1	0.11
	Total maximum stay (initial + extension), scaled down by 5	[0;1]	0.33
	No quota or cap applied	0 or 1	0.17
	Economic Needs Test not applied	0 or 1	0.17
MFN index calculation (MFN_index)			
Based on GATS SC	No MFN exemption on Mode 4	0 or 1	0.5
	High skilled labour excluded from MFN exemptions	0 or 1	0.5
Business visa index calculation (BV_ind)			
	One minus the following index:		
	Average cost (AUD, single entry and multiple entry), scaled down by 475	[0;1]	0.2
	Double entry only available	0 or 1	0.2
	Shortfall of permitted stay (days), scaled down by 180 days (max)	[0;1]	0.2
	No consessions to ASEAN members	0 or 1	0.2
	Processing complexity total, scaled down by 14.5 (observed max)	[0;1]	0.2

Processing complexity calculation for BV_ind			
	Processing time (business days)	[3;10]	0.33
	Security deposit required	0 or 1	0.33
	Number of pages in visa application form	[0.75; 3]	0.11
	Total number of entries in visa application form	[23;106]	0.11
	Number of additional supporting documents	[0;4]	0.11
Work permit index calculation (WP_ind)			
	One minus the following index:		
	Administrative sub-index	[0;1]	0.50
	Operating sub-index	[0;1]	0.50
Administrative sub-index for WP_ind			
	Number of agencies involved in issuing visa, scaled down by 2	[0;1]	0.33
	Processing time (days), scaled down by 63	[0;1]	0.33
	Shortfall in validity (years), scaled down by 6	[0;1]	0.33
Operating sub-index for WP_ind			
	Only firms are allowed to hire foreigners	0 or 1	0.125
	Skills transfer requirement	0 or 1	0.125
	Temporary employment requirement	0 or 1	0.125
	Foreign worker levy unskilled	0 or 1	0.125
	Foreign worker levy skilled	0 or 1	0.125
	Foreign worker levy high-skilled	0 or 1	0.125
	Security bond required	0 or 1	0.125
	MFN concessions	0 or 1	0.125
Inward mobility index calculation (In_ind)			
	Public policies sub-index	[0;1]	0.6667
	Private facilitation sub-index	[0;1]	0.3333
Public policy sub-index for In_ind			
	National manpower planning strategy	0 or 1	0.125
	Knowledge based economy strategy	0 or 1	0.125
	Continuing learning plans	0 or 1	0.125
	IT competencies	[0;1]	0.125
	IT promotion	0 or 1	0.125
	Overseas recruitment (government initiatives)	[0;1]	0.125
	High-skilled sector priority	0 or 1	0.125

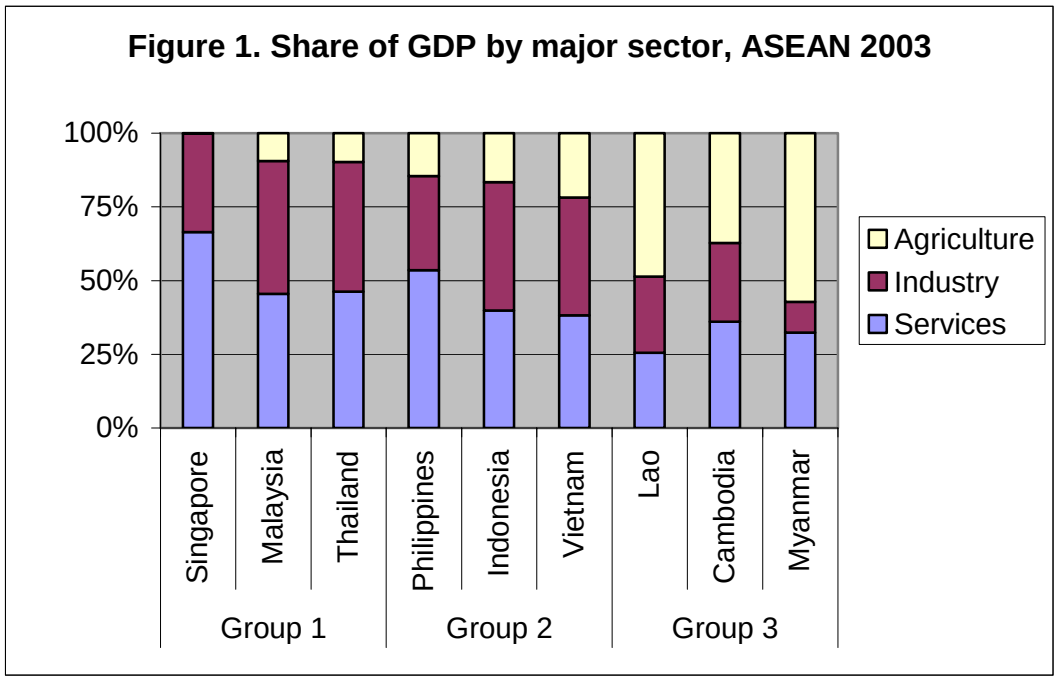
	Support of R&D	0 or 1	0.125
Private facilitation sub-index for In_ind			
	Overseas recruitment (private sector)	0 or 1	0.5
	No upfront fees	0 or 1	0.5
Registration index calucaltion, health professionals (Reg_ind)			
	One minus the following index:		
	Recognition of medical degrees sub-index	[0;1]	0.5
	Registration of doctors sub-index	[0;1]	0.5
Recognition of medical degrees sub-index for Reg_ind			
	Shortfall of recognised medical degrees (max 280)	[0;1]	0.5
	Shortfall of recognised ASEAN medical degrees (max 18)	[0;1]	0.5
Registration of doctors sub-index for Reg_ind			
	Registration examination necessary	0 or 1	0.06
	Language other than English	0 or 1	0.17
	Permanent residency requirement	0 or 1	0.33
	Citizenship requirement	0 or 1	0.33
	Temporary registration not available	0 or 1	0.06
	Foreign trained MDs not permited in public hospitals	0 or 1	0.06
Inward mobility of health professionals policy index calculation (Health_ind)			
	GATS sectoral commitments on Mode 4 (scaled down by 155)	[0;1]	0.25
	Horizontal index Hor_index	[0;1]	0.25
	MFN index MFN_index	[0;1]	0.25
	GATS commitments on health sub-index	[0;1]	0.25
GATS sectoral commitments on health sub-index for Health_ind			
	Commitments on professional medical services	[0;1]	0.5
	Commitments on hospital services	[0;1]	0.5
Inward mobility of IT professionals policy index calculation (IT_ind)			
	GATS sectoral commitments on Mode 4 (scaled down by 155)	[0;1]	0.25
	Horizontal index Hor_index	[0;1]	0.25

	MFN index MFN_index	[0;1]	0.25
	Actual telecommunications policy index (Findlay et al, 2005)	[0;1]	0.25

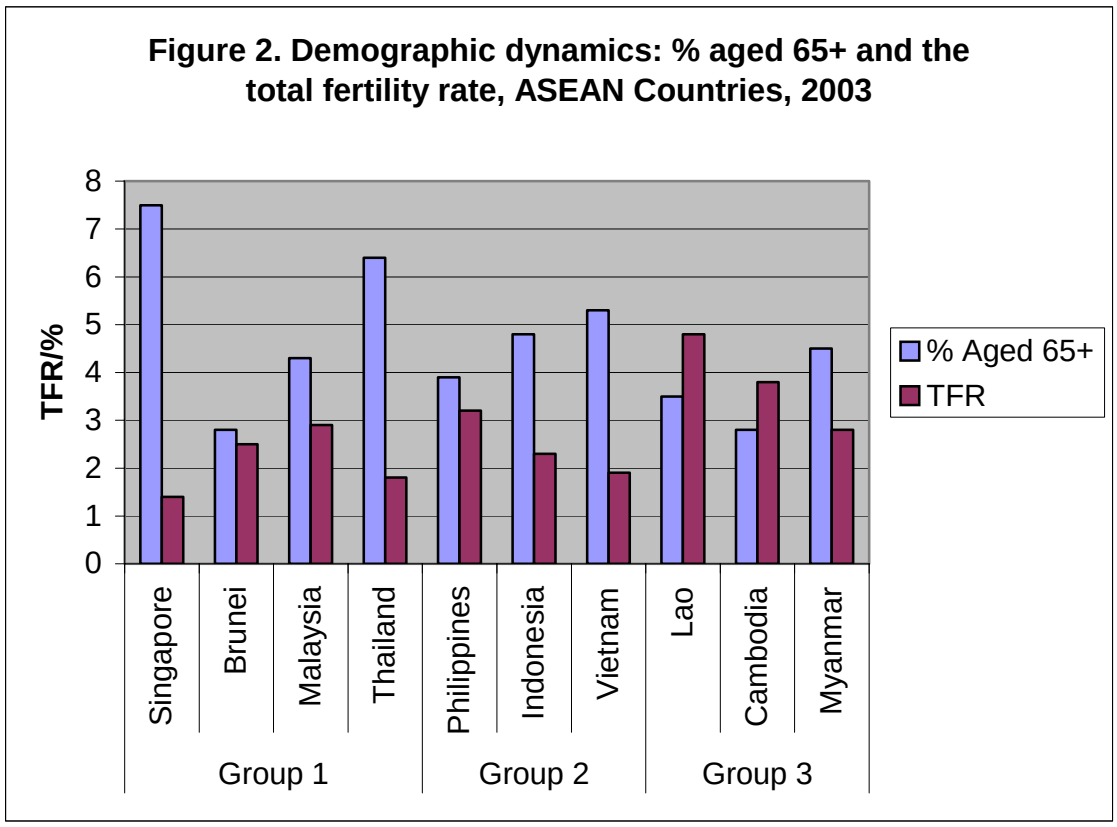
Table 1: Indicators of Economic Size, Growth and Service Sector Importance, ASEAN 1999, 2000 and 2003.

	GDP AND POPULATION				SERVICES		
	GDP Per Capita	Population	Value of GDP	Growth of GDP	Share of Services in GDP	Value of Services	Service Sector Exports
	2003 US$	2003 Million	2003 US$ Billion	1999-03 % p.a.	2003 Percentage	2003 US$ Billion	2000 US$Billion
GROUP I							
Singapore	20987	4.3	91.4	2.7	66.4	60.7	29.1
Brunei	12971	0.4	4.7	2.9	na	na	na
Malaysia	4198	24.8	103.2	4.6	45.5	47.0	13.9
Thailand	2291	62.0	143.3	4.6	46.3	66.3	13.9
GROUP II							
Philippines	973	81.5	80.4	4.1	53.5	43.0	4.0
Indonesia	973	214.5	208.5	4.0	39.9	83.2	5.2
Vietnam	481	81.3	39.9	6.8	38.2	15.2	2.7
GROUP III							
Lao	362	5.7	2.0	5.0	25.5	0.5	0.4
Cambodia	310	13.4	4.2	5.6	36.0	1.5	0.2
Myanmar[1]	179?	49.4	9.6	na	32.4	3.1	0.5

1 Data are illustrative only.
Source: ASEAN Statistical Yearbook, Jakarta 2004; Asian Development Bank, Key Indicators of Development (2004), UNCTAD, June 2005.

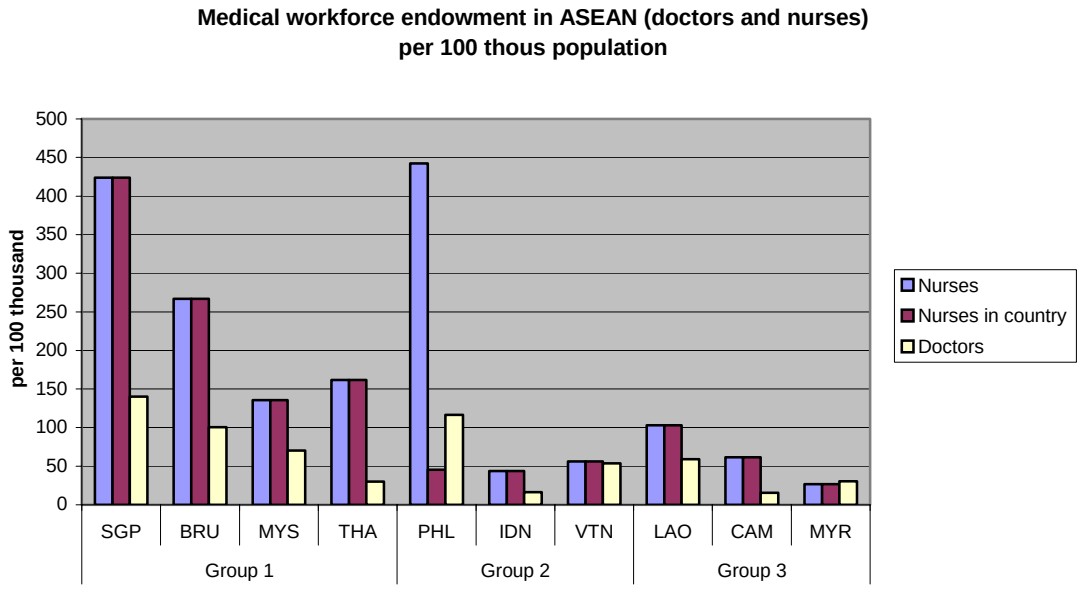


Source: Asian Development Bank, Leading Indicators of Development, 2004.



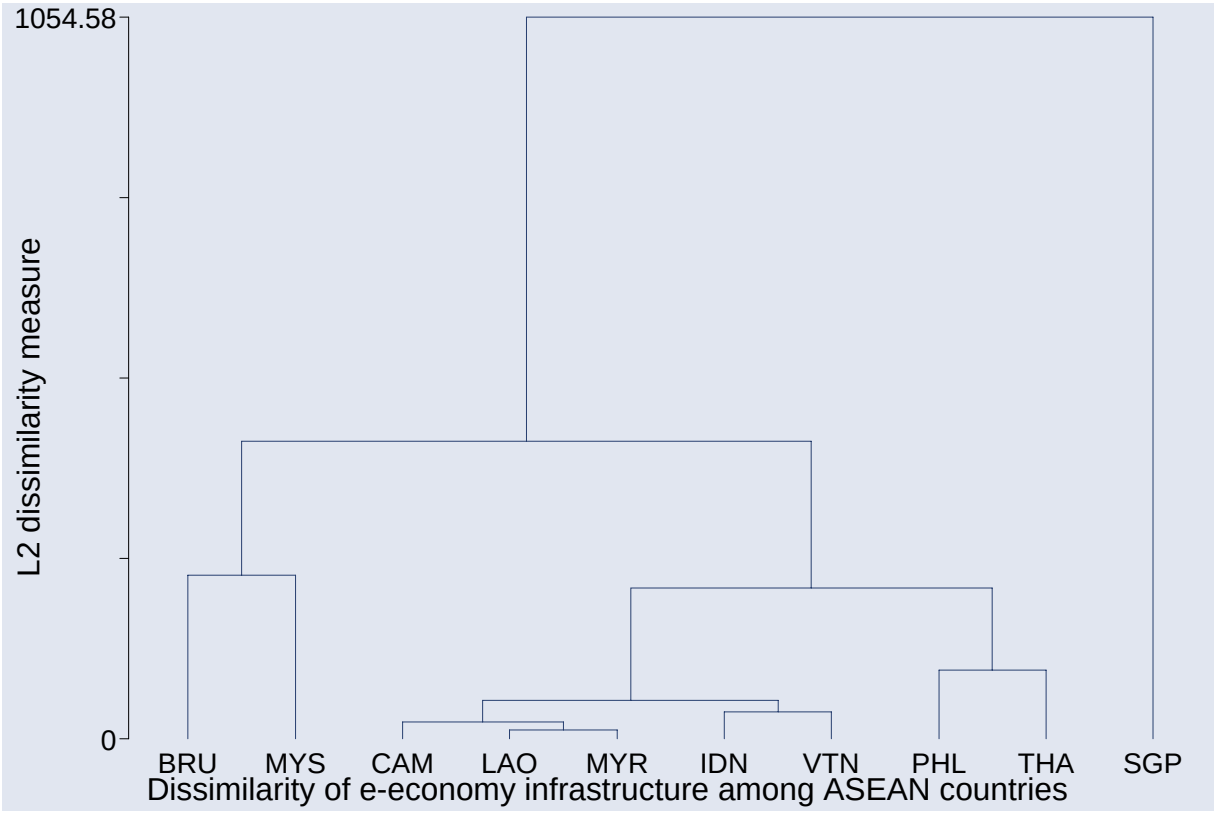
Source: Asian Development Bank, Leading Indicators of Development 2004; World Bank, World Development Indicators 2004 (for Brunei).

Figure 3. Medical workforce endowment in ASEAN, 2002



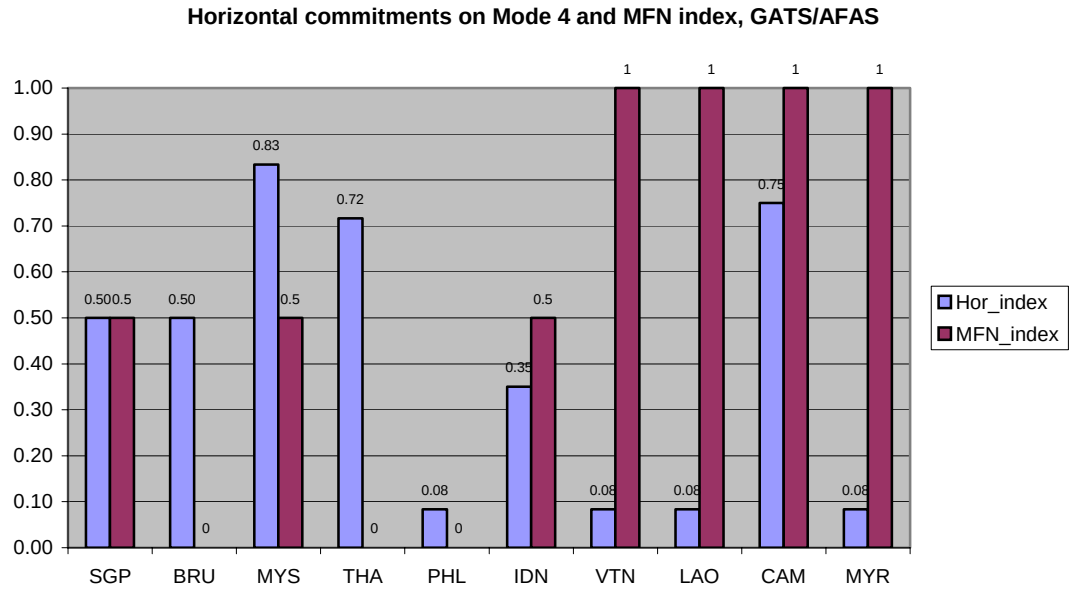
Source: WHO Global Atlas 2004 data, and Country Report, Philippines

Figure 4. Cluster analysis of ASEAN economies based on major telecommunications indicators



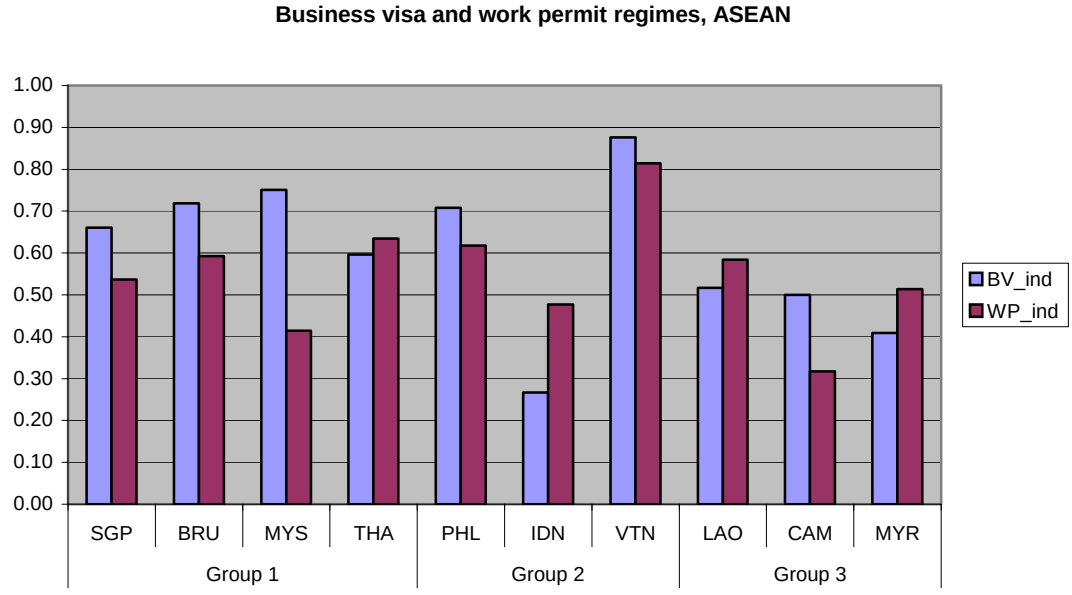
Sources: World Development Indicators, data for 2002

Figure 5. Horizontal commitments on Mode 4 under GATS* and Article II (MFN) exemptions, ASEAN members (June 2005)



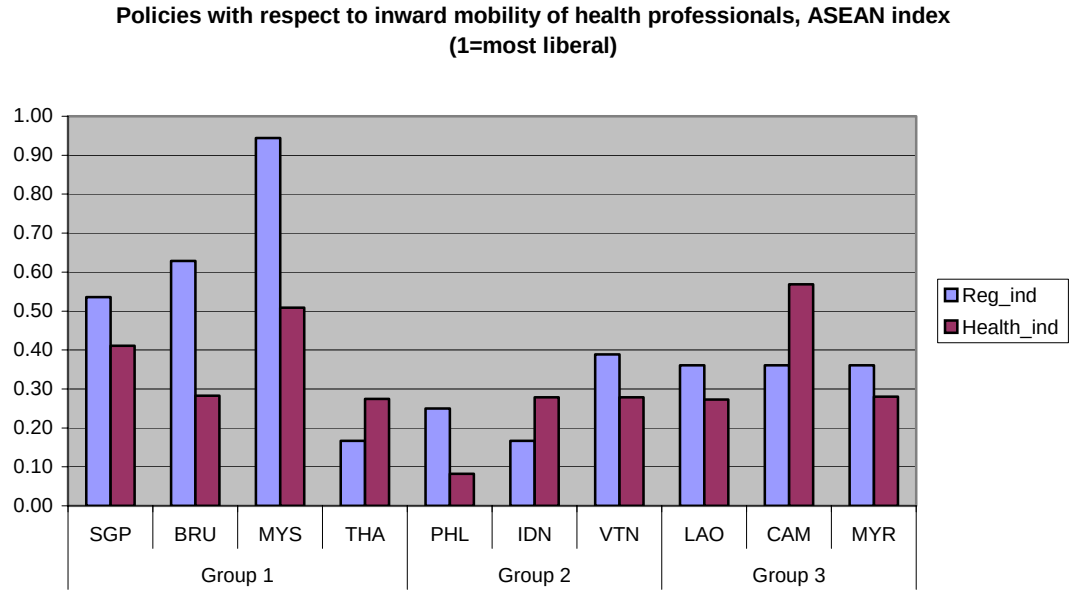
Note: AFAS (4th package of commitments) used for Laos and Vietnam

Figure 6. Comparison of immigration regimes for business (non-immigrant) visa (BV) and Work permits (WP) in ASEAN countries



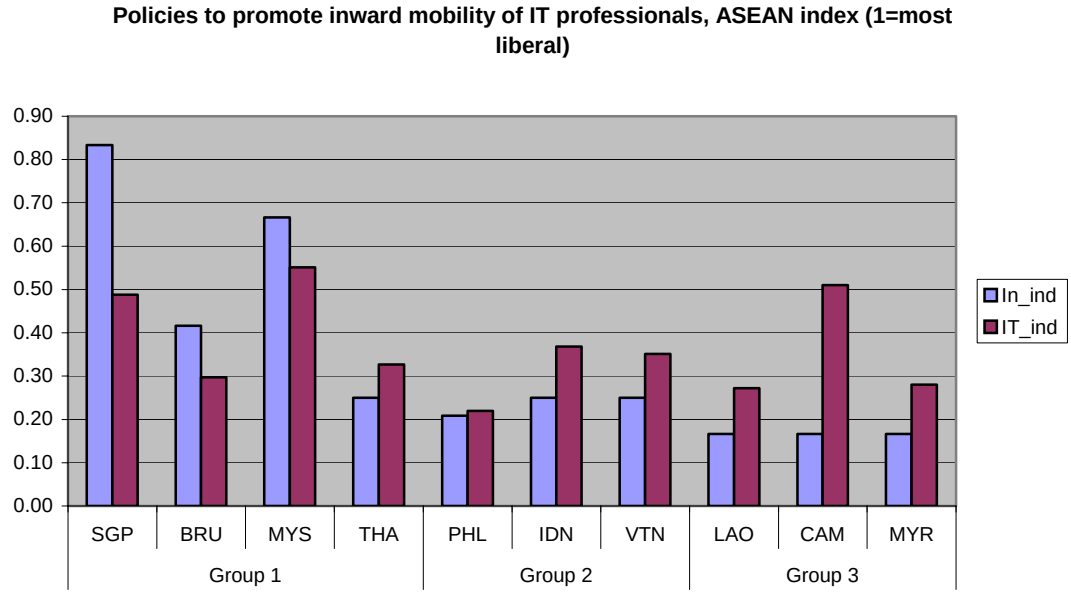
Source: Index constructed using the Manning and Bhatnagar (2004) data

Figure 7. Inward mobility of health professionals: policy and registration indices, ASEAN



Source: Appendix 1

Figure 8. Inward mobility of IT professionals: policy indices, ASEAN



Source: Appendix 1