

Chapter 4

Cross-border post-secondary education in the Asia-Pacific region

This chapter documents recent developments in cross-border post-secondary education in the Asia-Pacific region. It shows how burgeoning demand for education in the Asia-Pacific region, in the context of the growing inter-country mobility of business, research, technology and education, is the chief driving force in the internationalisation of higher education in the region. The first section gives a historical, geographical and economic overview of the region that allows one to better understand the diversity of needs and potential for cross-border education across countries. It also places countries of the Asia-Pacific region in the global context of cross-border post-secondary education. The second section shows how three broad rationales shape the internationalisation of education in the Asia-Pacific region: the demand for foreign education by students and their families, the policies and priorities of national governments, and the interests of foreign and local institutions. The third section analyses how national governments have designed measures to advance the internationalisation of higher education and research and secure three broad sets of objectives, severally and together: education capacity-building objectives; academic, cultural and political objectives; and trade objectives. The fourth section provides information on trends and statistics on student mobility as well as on programme and institution mobility: the Asia-Pacific region appears as the world's laboratory for demand-driven, trade-oriented mobility of people, programmes and institutions in education and gives an overview on how countries regulate these activities. The fifth section analyses the role of partnerships in cross-border education in Asia and the sixth section examines the implications of these trends for students, importing countries and exporting countries.

This chapter was written by Simon Marginson (Monash University, Australia) and Grant McBurnie (Monash University, Australia) in collaboration with the OECD Secretariat.

4.1. Historical and geographical overview

4.1.1. Introduction

The Asia-Pacific region comprises half of the world's population, spread across some forty countries, with a wide range of economic development. It is the largest regional source of international students, providing 43% of foreign students studying in OECD countries in 2001. The main form of cross-border education is the pursuit by students of a full foreign degree, abroad or at home, on a fee-paying basis. The key driver is student demand. The guiding policy rationale for governments in many developing countries is capacity building.

This chapter focuses on cross-border education in East Asia, Southeast Asia, South Asia and the Pacific. It takes in a long arc of Asian nations from Pakistan to Korea and Japan, and also includes Australia, New Zealand and the small island nations dotted through the Pacific Ocean. It excludes the Middle East and the emerging nations of central Asia.

In the last 20 years this mega-region has been fundamentally transformed by economic growth, modernisation and globalisation. In turn, the social demand for higher education and cross-border relationships in education has undergone a transformation of equal magnitude, while national education systems have often lagged behind. The change is not just in the size of international and higher education in the Asia-Pacific region, but in the character of these activities.

During the period of decolonisation after World War II, cross-border education was largely aid-based and designed to provide an alternative path of development to that offered by communism. Students from South and Southeast Asia, selected mostly by home governments, travelled to the OECD nations – mostly the United States, the United Kingdom, Canada and Australia – for advanced training and research degrees. Enterprising private students, especially from Japan, British Hong Kong and the former British territories of Malaysia, Singapore, India and Pakistan, also entered the English-language countries for degree programmes. In 1954/55 there were 34 232 foreign students in American tertiary institutions of whom 30% were from Asian countries (OECD, 2002a, p. 12). At this stage, China, isolated by Cold War diplomacy and pursuing a strategy of building national capacity *sui generis*, was almost fully outside the international circuit.

As the East Asian economies grew and consolidated, beginning in Japan and Korea and followed by Chinese Taipei and a newly engaged mainland China, the flow of private students to the United States increased. The United States continued to admit foreign students largely on the basis of foreign aid objectives, and scholarship funding played a key role. In 1980-82, the Thatcher government's creation of a full fee-based market in international education in the United Kingdom in order to generate export revenue and supplement scarce university funding, along with similar decisions in Australia in 1985-88, opened the way to a more commercial era. The long period of spectacular economic growth in East and Southeast Asia, albeit punctuated by recessions in the 1980s and late 1990s, generated a rapidly expanding middle class in the Asia-Pacific countries just at the time when the United Kingdom, Australia and New Zealand were recruiting actively and the

globalisation of finance, communications and business was augmenting the value of foreign degrees. The result has been a spectacular increase in the volume of student movement from the Asia-Pacific region, including South Asia, to the OECD countries, especially the English-language providers, and in the movement of educational programmes and whole campuses from the OECD countries into the nations of East and Southeast Asia. This latter form of internationalisation, dubbed here “programme and institution mobility”, which includes online education communicated across borders, is one harbinger of things to come and challenges many conventional assumptions about the nature of international education.

The burgeoning demand for education in the Asia-Pacific region, in the context of the growing inter-country mobility of business, research, technology and education is the chief driving force in the internationalisation of higher education in the world today. Aid policy continues to play a role, particularly in relation to the smaller nations of the Pacific, and in Japan and the United States as foreign providers to the Asia-Pacific region. Government regulatory frameworks are essential to the framing of inter-country student flows and research co-operation. Nevertheless, most international education activity in the region is driven by direct interaction between international providers, on the one hand, and Asia-Pacific students and their families, on the other, and much of the interaction takes the form of full price market exchange. Like education in many Asia-Pacific countries, international education is a business, while also serving social, cultural and policy purposes.

4.1.2. The Asia-Pacific region

Nations of the Asia-Pacific region

The Asia-Pacific region does not constitute a single political, economic or cultural entity. It is complex and diverse, and this adds to the difficulties always inherent in cross-country comparison in a globalising setting (OECD, 2002b; Marginson and Mollis, 2001; Marginson and Rhoades, 2002). The Asia-Pacific nations have been shaped by their history and geography, language and economy, politics and religion, including their relations with each other. The Asia-Pacific region is best understood in terms of several interlocking sub-regions with distinct characteristics:

- Four East Asian nations with dynamic export economies, strong national identities and some common cultural elements: China, industrialised Japan, Korea and Chinese Taipei.
- Eight diverse Southeast Asian nations, most with sizeable populations and a large Chinese diaspora, some with a substantial Muslim element. (Indonesia is the world’s largest Muslim nation.) Ranging from modernised Malaysia to Myanmar and Indochina, all have growth potential but are differentially arrayed on the development curve, and they vary in terms of the extent and funding of national educational provision, educational participation and adult literacy, and cross-border engagement.
- Two global hub cities, Singapore and Hong Kong, China. Part-Sino-phone and part-Anglophone, these cities play a key role in the world and regional economies, linking large Asian markets with the Anglophone and European countries, and they are active in reciprocal knowledge economy and cross-border education flows.
- Eight South Asian nations, including the very large populations of India, Pakistan and Bangladesh. South Asia is characterised by a common Indian cultural heritage, substantial populations located outside the modernised urban economy, and a socially and geographically uneven distribution of educational provision and literacy.

- The tiny nations of the Pacific plus Papua New Guinea, a larger undeveloped nation.
- Australia and New Zealand, economically integrated with East and Southeast Asia through trade in education and other sectors, while also linked to the Atlantic zone. They are multicultural in their population origins, and use English as their national language.

Of the modernised and developed nations, the four members of the OECD – Australia, Japan, Korea and New Zealand – share robust export profiles, sophisticated financial systems, well-developed services sectors, high penetration of information and communication technology (ICT) and extensive education systems with levels of domestic participation on the whole above the OECD average and well above the rest of the Asia-Pacific region. Singapore; Hong Kong, China and Chinese Taipei are strong economies and modernised societies with high levels of ICT penetration and strong R&D activity, especially Chinese Taipei and Singapore. Their domestic education systems are of good quality but have insufficient capacity to meet local demand, and many people in these relatively globalised nations are aware of the advantages of foreign education. Malaysia, combining highly developed metropolitan regions with a typical Southeast Asian rural/peasant hinterland, is less advanced but similar.

The developing countries comprise the great bulk of nations and populations in the Asia-Pacific region. Many are growing rapidly in economic terms, and part of the middle class accesses education from foreign providers because domestic education is inadequate in quantity or quality, and/or because foreign education confers advantages. This group includes: the emerging global giant China, the largest site of unmet educational demand in the world; another global giant in India; Indonesia; other large nations including Pakistan, Bangladesh, Sri Lanka, Vietnam and the Philippines; and many smaller ones (Table 4.1). Though all are categorised as “developing” there is much variation in national educational capacity and the propensity for international education. This group includes Cambodia, Laos and Myanmar, which along with the nations of South Asia and Papua New Guinea are the poorest countries in the Asia-Pacific region in per capita terms.

Linguistic diversity in the Asia-Pacific region

Culturally and linguistically there is enormous variation within the Asia-Pacific region and less common linguistic ground than in Europe and the Americas. Just over half of the world’s living languages are in Asia as a whole, including West and Central Asia (2 197 languages, 32%) and the Pacific (1 311, 19%). Papua New Guinea alone is home to one-sixth of the world’s language groups, most spoken by only a few thousand people. The region also contains five local languages spoken by 100 million people or more (Table 4.2). This linguistic diversity poses problems for higher education, especially for distance education modes. Nevertheless, much of this diversity is contained within nations where there is a dominant national language widely used as a second language. English is also used in this manner in some Asia-Pacific countries.

Other Asia-Pacific national languages with 30 million or more speakers are Filipino/Tagalog in the Philippines (45 million), Thai in Thailand (45 million), Burmese (33 million) and Lao and Isan in Laos, which are also spoken in Thailand (30 million). Other national languages are in Nepal (17 million) and Sri Lanka (14 million). In addition there are the sub-national regional languages of Bhojpuri and Maithili (60 million), Gujurati (45 million), Kannadu (45 million), Malayalam (35 million) and Oriya (30 million) in India; Min-nan (55 million), Xiang (48 million) and Hakku (35 million) in China and Chinese Taipei; and Sunda in Java and Indonesia (30 million).

Table 4.1. Asia-Pacific countries: population, economy and public investment in education

	Total national population (2001)	Gross domestic product (GDP) (2001)	Gross national income (GNI) per capita (2001)	Services product as % of GDP (2001)	High technology goods as % of manufactured exports (2001)	Adult illiteracy (people 15 and above) (2001)	Government education spending as % of GDP (2000)
		USD \$ billion	USD \$ PPP	%	%	%	%
East Asia							
	1 271.1	1 150.1	3 950	33.6	20.4	14.2	2.9
Hong Kong	6.7	162.6	25 560	85.6	19.5	6.5	4.1 ²
	127.1	4 245.2	25 550	--	26.0	--	3.5
Korea	47.3	461.5	15 060	54.1	29.1	2.2	3.8
Taiwan	22.4	309.4*	14 087*	67.2	--	--	2.4
Southeast Asia							
	13.1	3.4	1 790	37.5	--	32.0	1.6 ²
Indonesia	213.5	152.2	2 830	37.1	13.4	13.2	0.9 ²
	5.3	1.7	1 540	25.0	--	35.2	1.6 ²
Malaysia	23.8	90.0	7 910	41.9	56.9	12.6	7.5 ²
	51.1	--	--	32.5	--	15.3	0.5
Philippines	80.1	74.7	4 070	53.3	70.2	5.1	3.5 ²
	4.1	92.7	22 850	68.3	59.7	7.7	3.7
Thailand	62.9	120.7	6 230	49.3	31.1	4.5	4.3 ²
	78.9	31.2	2 070	39.1	--	7.5	--
South Asia							
	22.5	--	--	--	--	--	--
Bangladesh	131.5	47.1	1 600	51.7	--	60.0	2.1 ²
	0.7	0.5	--	28.6	--	--	5.2
India	1 017.5	457.0	2 820	48.8	--	42.8	4.1
Maldives	0.3	0.6	--	75.7	0.0	3.1	2.9 ²
Nepal	23.2	5.5	1 360	39.2	--	58.3	3.7
Pakistan	140.5	60.8	1 860	52.0	0.3	56.3	1.8
Sri Lanka	18.7	16.3	3 260	54.1	--	8.4	2.0 ²
Oceania							
Australia	19.4	368.6	24 630	69.3	10.0	--	4.7
Cook Is.	[0.018]	0.1*	4 355*	75.6	--	7.1	--
Fiji	0.8	1.6	4 920	58.6	--	--	5.2
Kiribati	0.1	[0.043]	--	76.5	--	--	--
Marshall Is.	0.1	0.1	--	71.5	--	--	16.6
Micronesia	0.1	0.2	--	--	--	--	5.5
Nauru	[0.012]	--	--	--	--	--	--
New Zealand	3.8	48.3	18 250	64.1	8.4	--	6.1
Papua New Guinea	5.2	3.5	2 450	31.2	18.9 ¹	36.1	2.3
Samoa	0.2	0.2	6 130	59.7	--	1.4	4.2
Solomon Is.	0.5	0.3	1 910	--	--	--	3.6
Tonga	0.1	0.2	--	59.8	--	--	5.3
Tuvalu	[0.011]	[0.014]*	--	--	--	--	--
Vanuatu	0.2	0.2	3 110	75.0	1.2 ¹	--	7.3

1. 2000 data.

2. 2001 data.

-- Data not available.

GNI per head data based on Atlas methodology; Purchasing Power Parities reflect local buying power.

* Gross national product data for 2000 not 2001, and not converted for PPPs.

Source: Asian Development Bank (2003); World Bank (2003).

Table 4.2. Major languages used in the Asia-Pacific countries, 1999-2000

Language	Main countries of use	Number of speakers world-wide (million)
English	Australia, New Zealand and widespread	1 000
Putonghua ("Mandarin")	China, Taiwan and migration	1 000
Hindi and Urdu	India, Pakistan, Nepal and migration	900
Bengali (Bangla)	Bangladesh, India regional and migration	250
Bahasa (Malay/Indonesian)	Indonesia, Malaysia, Singapore	160
Nihongo (Japanese)	Japan and migration	130
Punjabi	Pakistan and India regional and migration	85
Wu	China regional	85
Jawa	Indonesia regional (Java)	80
Marathi	India regional	80
Hankukmal (Korean)	Korea and migration	75
Viet (Vietnamese)	Vietnam and migration	75
Telugu	India regional, Malaysia	70
Yue (Cantonese)	China regional incl. Hong Kong and migration	70
Tamil	India and Sri Lanka regional and migration	65

Note: Language groups refer to a primary language plus alternate languages close enough to it to enable a relatively high level of communication. For more details see source.

Source: Linguasphere Observatory, www.linguasphere.org/

Nations that use a national language, English and local dialects include India (national language Hindi), Pakistan (Urdu), Bangladesh (Bengali/Bangla), the Philippines (Filipino, from Tagalog) and Malaysia (Bahasa Maleyu). In Malaysia; Singapore; Hong Kong, China; Chinese Taipei and Korea, there is growing use of English in education, particularly in science and mathematics. In most other nations, English is understood in educational circles as the dominant language of communications, media and research, more for reading and writing than speaking. Though English is pre-eminent as a global second language, and this is reinforced by the role of English in ICT (Crystal, 1997), it should not be assumed that most Asia-Pacific nations will adopt English as the language of higher education, or even that English will remain the one clearly global language. Putonghua ("Mandarin") is used by as many speakers worldwide as English and is unshakeable as the main language of China. Hindi/Urdu, Bengali or Bangla, Malay/Indonesian and Japanese also constitute very large communities. Future higher education in the Asia-Pacific region will be expressed in the major languages of use, including English. Providers, including foreign providers, will need to be competent in one or more of the large language groups listed in Table 4.2 as well as in English.

4.1.3. Educational and technological capacity

Educational participation

In most Asia-Pacific countries, the OECD norm of near universal secondary education has yet to be established. Exceptions with high participation are seven of the eight most developed countries, plus Thailand. The middle-range participation group includes China, most of Southeast Asia and South Asia and four Pacific nations. Most Pacific countries are in the low participation group (Table 4.3). However, the data do not tell the full story. For example, Indonesia has above average rates of participation, but hours are inadequate and the resource quality of many institutions is poor.

Table 4.3. **Asia-Pacific countries: participation in secondary education**

High rate of participation in secondary education (over 80%)	Gross secondary enrolment ratio female/male	Medium rate of participation in secondary education (45-80%)	Gross secondary enrolment ratio female/male	Low rate of participation in secondary education (less than 45%)	Gross secondary enrolment ratio female/male
<i>East Asia</i>		<i>East Asia</i>		<i>Southeast Asia</i>	
	100/98		79/75		36/36
Korea, 2000	98/97	China, 1999	58/65	Laos, 1999	27/39
Japan	--				15/29
<i>Southeast Asia</i>		<i>Southeast Asia</i>		<i>South Asia</i>	
	--/128		78/77		24/35
Malaysia, 1999	103/93	Indonesia, 1998	77/77	Bhutan, 1999	9/11
Thailand, 1999	89/87		58/64		--
<i>Pacific</i>		<i>South Asia</i>		<i>Pacific</i>	
	--		84/74		47/42
New Zealand	--	Sri Lanka, 1999	74/68	Micronesia, 1998	43/45
			39/59		35/37
		Bangladesh, 1999	50/45	Nauru, 1998	37/32
			38/56		35/31
		<i>Pacific</i>		Solomon Is., 1998	18/30
			77/70		25/21
		Tonga, 1998	71/64	Papua New Guinea, 1999	18/26
			51/47		
		Cook Is., 1998	49/42		

-- Data not available.

Source: Asian Development Bank (2003). See also Acedo and Uemura (1999).

Table 4.4 shows a substantial loss of students from the Southeast Asian systems in the later years of secondary school, especially in Malaysia and Indonesia. In these countries, the participation of 15-19 year-olds is just over half of the OECD mean, and participation in education falls away after age 20. In China in 2000 only 17% of the secondary school population qualified for degree-level study, and only 8% entered degree courses. In Indonesia the corresponding figures were 19% and 14%. The Philippines and Thailand have higher participation than most. However, in the Philippines much of the educational infrastructure is under-resourced. As in Indonesia, the group of world-class universities is small.

ICT networking capacity

The Asia-Pacific nations exhibit a highly varied capacity to support networked educational technologies. The variations are more extreme than the variations in face-to-face educational provision and participation. Only eight nations have levels of personal computer and Internet use sufficient to enable mass online provision: Hong Kong, China; Singapore; Australia; Japan; Korea; Chinese Taipei; New Zealand and Malaysia. All have more than 270 Internet users per 1 000 population and all but Malaysia have more than 220 computers per 1 000 population. Of the others, Thailand and some island countries are ahead of the pack but well below the top group. China has 26 Internet users per 1 000 population. ICT capacity is very undeveloped in most of South Asia, Myanmar, and Indochina apart from Vietnam. In Cambodia and Laos, Internet use is prohibitively expensive. More detail is provided in Section 4.4.4 and Table 4.20.

Table 4.4. **Participation in upper secondary and tertiary education, selected Asia-Pacific countries as compared to OECD mean, 2000**

	Students as a proportion of the population aged:			Proportion of school population qualifying for degree courses	Proportion of total population entering degree courses	Average expected years of tertiary education* (all courses)
	15-19 years	20-29 years	30-39 years			
	%	%	%	%	%	Years
<i>OECD in Asia-Pacific</i>						
	81.8	28.2	14.9	67	59	3.0
Japan	--	--	--	69	39	--
Korea	78.6	23.9	1.4	60	45	3.7
New Zealand	72.4	21.4	9.0	65	70	3.1
<i>Other Asia-Pacific</i>						
China	--	--	--	17	8	0.4
India	--	--	--	34	--	--
Indonesia	38.5	3.0	--	19	14 ¹	0.6
Malaysia	46.5	6.0	0.5	14	22	1.1
Philippines	--	--	--	53	41	1.4
Thailand	60.2	--	--	27	40	1.8
<i>United States</i>	73.9	21.2	5.4	--	43	3.4
OECD country mean	77.1	21.4	4.9	55	45	2.5

1. 2001 data.

-- Data not available.

* Average expected years of tertiary education per student. These data cover participation at all age levels, including both full-time and part-time enrolment.

Source: OECD (2002b); OECD education database.

In Hong Kong, China; Singapore; Chinese Taipei and Malaysia, considerable electronic networking capacity is combined with significant unmet demand for education and a high volume of offshore education. In other countries where unmet demand is a driver, such as China, Indonesia and Thailand, ICT capacity remains weak. Nevertheless, new public or private investments in telecommunications, satellite dishes, cable roll-out, servers and bandwidth could change this situation comparatively quickly.

Resources for education

One explanation for the variation in participation rates is found in the level of investment in education. In the Asia-Pacific OECD nations, public investment in tertiary education is below the OECD average although private spending is relatively high (Table 4.5). Public investment is very low in Indonesia and Myanmar, so that the infrastructure is poor, professional salaries are low, school hours are fragmented and coverage of the rural population is poor. It is also low in Laos, Cambodia, Papua New Guinea and all of South Asia. In Indonesia, education constitutes just 5.2% of all public spending, less than half the OECD mean and a quarter of spending in Thailand, Malaysia and the Philippines. Public investment is not high in China and Chinese Taipei but there is significant private investment. Though the public education budgets in Singapore; Korea and Hong Kong, China are solid rather than large, education absorbs a high proportion of total public spending and is buttressed by private investment. Public outlays on education as a proportion of GDP are higher in the small Pacific nations with limited private capacity, and very high in wealthier Malaysia, which spent 7.5% of GDP on the government funding

of education (2000), 1.3% on tertiary education institutions (1999), which is higher than many OECD countries, and a remarkable 0.6% of GDP on subsidies to families for tertiary education (OECD, 2002b). It should be noted, though, that Malaysian participation is lower than the OECD mean. Many Chinese and Indian families unable to access public institutions send their children offshore for study.

Table 4.5. Spending on education, selected Asia-Pacific countries compared to OECD mean, 1999

	Annual spending per student on secondary education institutions	Annual spending per student on tertiary institutions (all courses)	Spending on tertiary education institutions as a proportion of gross domestic product, from public and private sources			All forms of public spending on education as a proportion of total public spending*	
			Private	Total	Tertiary education	All sectors	
	USD \$*	USD \$*	%	%	%	%	%
<i>OECD in Asia-Pacific</i>							
Australia	6 850	11 725	0.8	0.7	1.5	3.4	14.6
Japan	6 039	10 278	0.5	0.6	1.0	1.2	9.3
Korea	3 419	5 356	0.5	1.9	2.4	2.4	17.4
New Zealand	--	--	0.9	--	--	--	--
<i>Other Asia-Pacific</i>							
	833	5 798	0.5	0.4	0.8	3.1	13.0
India	295	--	0.6	--	--	2.4	12.6
Indonesia	242	1 047	0.2	0.2	0.4	1.2	5.2
Malaysia	1 813	7 924	1.2	0.1	1.3	8.3	25.2
Philippines	406	1 060	0.7	--	--	3.4	20.6
Thailand	--	--	0.9	0.2	1.1	6.7	28.0
<i>United States</i>	8 157	19 220	1.1	1.2	2.3	--	--
OECD country mean	5 465	9 210	1.0	0.3	1.3	2.8	12.7

-- Data not available.

* Spending per tertiary student in US dollars converted to Purchasing Power Parity (PPP).

Source: OECD education database.

Private investment in tertiary education plays a larger role in the Asia-Pacific region than in western Europe. As Table 4.6 shows, private investment is well above the OECD mean in Korea, Japan and Australia. Korea has a remarkable level of investment in education, most of it financed privately. A high 63% of the costs of educational institutions are borne by households, compared to the OECD mean of 15%. In 1995 total Korean expenditure on education was 13.3% of GDP, 4.4% public, 8.9% private, perhaps the highest of any developed nation (OECD, 2000). Again, the efficiency of national investment – here the private component – must be examined. Malaysia and Korea are discussed further in Section 4.3.2.

Table 4.6 shows the public/private split of the costs of tertiary education in selected countries. In Japan 56% of the costs of educational institutions are paid by households, in Indonesia 49%, in Thailand 16%. In Malaysia they pay 7% inside the country but much more for students who are educated offshore without state support. In India the figure is zero but in China it is 21%. Chinese families that send their children offshore for education are accustomed to doing so without state support, more so than Indian families.

Table 4.6. Public/private split of spending on tertiary education institutions and household expenditure on tertiary education, selected Asia-Pacific countries compared to the OECD mean, 1999

	Direct expenditure on tertiary education institutions by source		Share of spending by households in total direct expenditure	Household spending on tertiary tuition fees per student*	Subsidies from government per student for fees, ancillary services, living costs*
	Public	Private			
	%	%	%	\$US p.a.	\$US p.a.
<i>OECD in Asia-Pacific</i>					
Australia	52.4	47.6	33	3 836	2 935
Japan	44.5	55.5	56	5 705	--
Korea	20.7	70.3	63	3 350	111
New Zealand	--	--	--	--	1 494
<i>Other Asia-Pacific</i>					
	56.8	43.2	21	1 225	222
India	99.7	0.3	0	--	--
Indonesia	43.8	56.2	49	502	--
Malaysia	92.7	7.3	7	650	4 251
Thailand	83.3	16.7	16	--	--
<i>United States</i>	46.9	53.1	--	7 299	2 134
OECD country mean	79.2	20.8	15	1 550	1 502

-- Data not available.

* Spending per tertiary student converted to Purchasing Power Parity (PPP).

Source: OECD (2002b), p. 190; OECD education database.

The patterns of funding and participation in the Asia-Pacific region have two main implications. First, apart from the OECD countries – Japan, Korea, Australia and New Zealand – the Asia-Pacific region is underprovided with good quality education relative to domestic demand. While many families are interested in an English language education offshore for its own sake, foreign education is needed in most countries to augment local provision, not just to substitute for it. Governments are encouraged to facilitate foreign education because it supplements national capacity. Second, in most Asia-Pacific countries, including large ones such as China, Indonesia, Korea, the Philippines and Thailand, middle-class students and their families are accustomed to private investment in education. In addition, in East and Southeast Asia, it is widely believed that a foreign English-language education can provide status and positional advantages and perhaps superior quality. These factors combine to encourage high demand for foreign education on a fee-paying basis and a continuing increase in cross-border movement, thereby enabling the growing global market in international education. This does not mean that cultural goals, and cultural effects, are unimportant in driving cross-border activity. People undertake education to acquire cultural attributes. But it means that in the Asia-Pacific region the trade and market aspects of cross-border education are important and affect its character and distribution.

4.1.4. Educational typology of the Asia-Pacific nations

In relation to cross-border education, the nations of the Asia-Pacific region fall into five broad groups (Table 4.7), though some overlap more than one group:

1. *Developed exporter nations with strong domestic capacity and a minor role as importers of education:* Australia and New Zealand. These nations, English-speaking providers cheaper to access than the United States and the United Kingdom, have developed a predominantly

entrepreneurial approach, driven by individual universities with the support of national governments for which cross-border education provides export revenues and is a catalyst for long-term business relationships, particularly in Southeast Asia and China. Revenues from international education are crucial to the financial viability of many universities. Cross-border education also has a role in aid policies, mostly focused on the smaller nations located in the Pacific, but aid objectives are less important than trade objectives.

2. *Developed nations with a strong domestic capacity but active as importers*, particularly of English-language education: Japan and Korea. Japan is also a large-scale exporter, particularly to China and Korea. Both countries have a predominantly non-commercial and explicitly policy-driven approach to cross-border education. In Japan international education is expected to achieve foreign aid and international relations objectives within the Asia-Pacific region and encourage the internationalisation of Japanese universities.

3. *Developed or intermediate nations with inadequate domestic capacity, active as both importers and exporters*. This group includes Singapore and Hong Kong, China, Chinese Taipei and Malaysia, which falls between groups 3 and 4. India has an export role but is closer to group 4. (China and others in group 4 may become exporters in future.) All of these nations are relatively competent in English, especially Singapore and Hong Kong, China, and this helps them to be active cross-border players. Chinese Taipei is building a domestic capacity in English-language education and can export English teaching to China. All these nations have significant buying power and constitute important markets for cross-border provision. At the same time their education systems attract students from neighbouring states, for example Malaysian students to Singapore and other South Asians to India, and have some globally recognised strengths, such as business training in Singapore, engineering and ICT research in India. In most of these countries, cross-border education is understood as an economic activity, while at the same time governments see it as instrumental to nation building and global relations, a policy sphere in which a range of objectives is pursued.

Table 4.7. An Asia-Pacific regional typology of cross-border education

1. Developed exporter nations with strong domestic capacity and minor role as importers	2. Developed nations with a strong domestic capacity but also active as importers	3. Developed or intermediate nations with inadequate domestic capacity, active in both import and export	4. Intermediate nations with inadequate domestic capacity globally active as importers only	5. Undeveloped nations, with low domestic participation and relatively weak demand for education imports
Australia, New Zealand	Japan, Korea (Taiwan)	Singapore, Hong Kong (Taiwan) (Malaysia, India)	China, Vietnam, Philippines, Thailand, Indonesia, Sri Lanka, Pakistan (Malaysia, India) (Bangladesh, Fiji)	Laos, Cambodia, Myanmar, Papua New Guinea, small island nations (Bangladesh, Fiji)
Trade focus. English-language education creates market potential as exporters	Language base limits exporter function, though Japan is a large exporter. Non-trade objectives dominate policy approach	Major markets for provider nations. Import and export is mostly English-language education. Mixture of trade and other policies. Focus on building knowledge economy	Major markets for provider nations, especially English-language education. Policy dilemmas: import or build domestic capacity?	As they develop these nations will join group 4

Note: Intermediate cases are indicated in brackets.

4. *Intermediate nations with inadequate domestic capacity active as importers while relatively undeveloped as exporters*. This is the largest single bloc in the Asia-Pacific region, in terms of both number of countries and number of students. It includes China, Vietnam, the

Philippines, Thailand, Indonesia, Sri Lanka, Bangladesh (which while very poor on a per capita basis, has long imported English-language courses for the elite) and Pakistan. In China and Thailand, for example, there is an absolute shortage of tertiary places; in other countries, such as the Philippines, domestic capacity is greater but there are few high quality opportunities. Unmet demand in these countries creates a major market for the exporting nations and is a key factor in the growth of cross-border education at world scale. Although these nations are underdeveloped or unevenly developed in socio-economic terms, they have emerging middle classes increasingly able to invest in cross-border education. National governments see cross-border education and research as having the potential to assist national development, while also creating dilemmas because of their potential to threaten national identities and augment net “brain drain”. All of the nations in this group must remain vigilant and determine the balance between national and foreign providers and the extent to which research training should be sponsored offshore or research capacity built at home.

5. *Relatively undeveloped nations, characterised by both low domestic participation and weak demand for cross-border education.* These countries include Laos, Cambodia, Myanmar, Papua New Guinea and small island nations in the Pacific and Indian Oceans: the Maldives, the Solomons, Tonga, Tahiti and so on. As these nations develop, some, such as Cambodia and Myanmar, might be expected to join group 4.

4.1.5. The Asia-Pacific region in global context

Demographic and economic drivers of the demand for education

The growing global markets are constituted above all by two factors: on one hand, the economic and cultural weight of the United States; on the other hand, the economic/demographic weight of China, India and the rest of South Asia, and Southeast Asia. The United States pulls the world towards it, taking in a growing number of the rising generation and those who can invest in their own mobility and for whom an English-language and American education represents an entry to the global labour market. In the wake of the United States, the other English-speaking countries also benefit from the demand for English-language education. The largest concentrations of this demand are found in the Asia-Pacific countries, where there is also a growing capacity for private investment.

East Asia, Southeast Asia and South Asia constitute a zone of great demographic and economic weight, with well over half the world’s population and a vast economic potential. China and India are the two largest nations and Indonesia is fourth in terms of population. Ten of the world’s 16 cities with over 10 million population are in the region, and three more will reach this size by 2015 (Table 4.8). Seoul and Bangkok are nearly as large. These cities constitute immense concentrations of present and future demand for education.

Notwithstanding the currency crisis of 1997-98 and the long Japanese recession, the economic performance of the East Asian economies has been remarkable. Japan’s role as leader of growth has been assumed by Korea, Chinese Taipei, Singapore and China (Table 4.9). National per capital income in China was only USD 890 in 2001, but when local purchasing power is taken into account, low labour costs mean USD 3 950 per head in purchasing power parity terms (World Bank, 2003). On some projections, China will produce 20% of world GDP within two generations. Between 1985 and 1997, China sharply increased its presence in the medium- and high-technology sectors.

Table 4.8. **Mega-cities, world and the Asia-Pacific region, 2000 and 2015**

Cities projected to have more than 10 million people in 2015		Population in (millions):	
		2000	2015
Asia-Pacific countries			
<i>India</i>	Mumbai	16.1	22.6
		13.1	16.7
	Delhi	12.4	20.9
<i>Bangladesh</i>	Dhaka	12.5	22.8
<i>Pakistan</i>	Karachi	10.0	16.2
<i>China</i>	Shanghai	12.9	13.6
	Beijing	10.8	11.7
		9.2	10.3
<i>Japan</i>	Tokyo	26.4	27.2
		11.0	11.0
<i>Indonesia</i>	Jakarta	11.0	17.3
<i>Philippines</i>	Metro Manila	9.9	12.6
Other countries			
<i>United States</i>	New York	16.7	17.9
	Los Angeles	13.2	14.5
<i>Brazil</i>	Sao Paulo	18.0	21.2
	Rio de Janeiro	10.7	11.5
<i>Mexico</i>	Mexico City	18.1	20.4
<i>Argentina</i>	Buenos Aires	12.0	13.2
<i>Nigeria</i>	Lagos	8.7	16.0
<i>Egypt</i>	Cairo	9.4	11.5
<i>Turkey</i>	Istanbul	9.0	11.4

Source: ADB (2003).

Table 4.9. **Real GDP growth in China, 1985-2001 (percentage over previous year)**

1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
13.5	8.9	11.6	11.3	4.1	3.8	9.2	14.2	13.5	12.7	10.5	9.6	8.8	7.1	7.8	8.0	9.3

Source: ADB (2003).

In Southeast Asia, Singapore, Malaysia and the Philippines have also restructured dramatically in favour of more technologically intensive industries, partly financed by foreign investment. Korea has sustained a strong export profile largely through domestic investment (OECD, 2000, pp. 29-30). In Southeast Asia, Malaysia has had the strongest growth. On the whole, Thailand has been successful, despite being hard hit in the currency crisis. Vietnam, which has sustained an average 6% growth rate for the last decade, albeit from a low base, may be another emerging giant. The Philippines – once the strongest regional economy – and particularly Indonesia have developed less consistently but constitute important potential educational markets. In South Asia, India has opened up its markets to some degree, increased foreign trade and created a strong global presence in the information technology (IT) sector, including training.

The East and Southeast Asian countries, as well as Australia and New Zealand, share the cultural and economic influence of their Chinese diaspora, which has a pivotal global role because of its active economic and cultural relations with both China and the United States. Along with Chinese Taipei and Hong Kong, China, these Chinese are the primary source and conduit for investment in mainland China. They also constitute much of the

cross-border migration and education in the Asia-Pacific region and much of the globally mobile labour force in high-skill areas. South Asian and Korean expatriates play a similar global role on a smaller scale, for example Indian IT professionals in the United States.

Growing demand for globally mobile labour

The growing demand for international education is also a cause, consequence and symptom of globalisation. In industries at the cutting edge of the knowledge economy such as ICT, financial management, research, science and engineering, the pool of globally mobile labour is expanding (OECD, 2002d). All cross-border relations are enhanced by global communications, international mobility is encouraged by cheaper air travel, and a growing number of people in every nation deal routinely with agents operating across borders. Mobility is enhanced by inter-country transfers of multinational companies and the cross-border activities of recruitment firms (ILO, 2003). Some graduates become peripatetic, working in many different locations and perhaps moving back to their country of origin for part of their careers. National and cultural identities become more flexible as people maintain continuous cross-border linkages.

Table 4.10. Foreign tertiary students from the Asia-Pacific region studying in all OECD countries and in the United States, 2001

Country of origin	Number of students studying in OECD nations, 2001	Proportion of all foreign students in OECD nations, 2001 (%)	Rank of source country in the foreign student flows to OECD	Foreign students in the United States, 2001
China	124 000	8.5	1	51 986
Korea	70 523	4.8	2	39 624
India	61 179	4.2	3	47 411
Japan	55 041	3.8	5	40 328
Malaysia	32 709	2.2	11	6 761
Indonesia	26 615	1.8	14	10 082
Hong Kong, China	23 261	1.6	17	6 615
Singapore	19 514	1.3	19	3 613
Thailand	18 172	1.2	21	9 703
Pakistan	10 478	0.7	35	6 026
Vietnam	8 110	0.6	45	1 754
Bangladesh	6 694	0.5	51	3 568

Source: OECD education database.

Many Asia-Pacific students and their families expect that a foreign education, particularly one provided in the provider nation, creates advantages because of the growing importance of globally mobile labour, business and knowledge. Study abroad also creates migration opportunities and foreign credentials may be an advantage at home (though this is more uncertain). The growth of mobile labour and the utility of cross-border skills feed both the demand for education and the potential for its supply, creating new opportunities for both graduates and education providers. Preparation for globally mobile business and all cross-border relations, including electronic communications, is enhanced by cross-border study. Thus in international education the fastest-growing disciplines are business and computing/ICT, and the chief growth is in courses in English, the main language of communications, cross-border business and knowledge transfers. Given the fecundity of globalisation, the growth of cross-border education would have occurred whether supported by governments or not. For the most part, governments have supported

it, facilitating cross-border study and (less consistently) cross-border movement by providers.

The flow of students from the Asia-Pacific region to OECD countries

While globally mobile capital and information flow largely from North America and Europe to Asia, the main flow of people is in the other direction. Of the foreign students in tertiary institutions in OECD countries in 2001, China (8.5%), Korea (4.8%) and India (4.2%) were the largest source countries and Japan (3.8%) the fifth largest. As Table 4.11 shows, in 2001, almost half of the foreign students moving from the Asia-Pacific region to the OECD countries went to the United States (44.3%). Of other major English-language providers, Australia (12.5%) preceded the United Kingdom (11.3%). Overall, 71.8% of foreign students from Asia and Oceania enrolled in English-speaking systems. (Here “Asia” includes the Middle East, and Germany counts some children of guest workers from Turkey and elsewhere as foreign students. Confining “Asia” to East Asia, Southeast Asia and South Asia, the dominance of English-language providers is clear.)

Table 4.11. Foreign students from Asia-Pacific entering tertiary education in OECD countries, by country of study, 2001

Destination of Asia-Pacific students (students studying in OECD countries only)	Students from Asia*	Students from Oceania	Students from Asia/Oceania	Proportion of all students from Asia/Oceania (%)
United States	294 230	4 011	298 241	44.3
Australia	77 849	6 534	84 383	12.5
United Kingdom	74 400	1 790	76 190	11.3
Germany	67 658	323	67 981	10.1
France	19 828	200	20 028	3.0
Canada	14 630	510	15 140	2.3
Turkey	10 944	31	10 975	1.6
New Zealand	7 971	1 200	9 171	1.4
All other OECD countries	89 322	1 089	90 411	13.4
Total Asia-Pacific students in OECD	656 832	15 688	672 520	100.0

* Asia here includes Central Asia and the Middle East. Oceania includes Australia, New Zealand and the Pacific.

Source: OECD education database.

The role of foreign study relative to domestic enrolments is greatest in Malaysia, despite the high investment in domestic capacity. In 2000, Malaysians studying abroad represented 7.7% of the national tertiary enrolment, greater than for all but four OECD countries. Cross-border study also plays a substantial role in Singapore and Hong Kong, China. In 2000, Korean students studying abroad represented 2.3% of domestic numbers, China 1.5%, Indonesia 1.0%, Thailand 0.9% and the Philippines 0.2%. For New Zealand, they were 3.5% and for Australia only 0.6% (OECD, 2002b, p. 245).

The American magnet

Among foreign students studying in American degree-granting institutions in 2000/01, the five largest sources were in East Asia, with 43% of all foreign students, followed by Canada, Indonesia and Thailand (see Table 4.10 and Chapter 4.2 for more details). The next five countries combined – Turkey, Mexico, Germany, Brazil and the United Kingdom – provided fewer students than either China or India. The majority of Chinese students

studying abroad go to the United States, with Japan the next most frequent destination. The role of the United States peaks at the graduate, especially the doctoral, level. More than 80% of Chinese students studying in the United States are postgraduates, mostly taking science or technology-based courses. An American degree creates superior opportunities in universities and sectors such as ICT, and, other things being equal, a better start in most fields. On the supply side, the United States provides scholarship support that is generous by the standards of most countries, and it encourages the migration of professionals in high demand.

Arguably much of the cross-border demand for American, and to a lesser extent British and Australian, education, is migration-related. It contributes to a “brain exchange” often experienced as “brain drain” in the Asia-Pacific region. The overall impact of “brain mobility” appears negative for China. In the last two decades half a million skilled workers were lost, while shortages of technical and managerial personnel are a brake on development (Guochu and Wenjun, 2002, pp. 189-200). Of the 1990-91 American doctoral recipients from China, 88% were still working in the United States in 1995. The corresponding figure for Indian graduates was 79% (Cervantes and Guellec, 2002b). Among overseas Chinese students over the 1978-99 period to all countries, 75.0% failed to return, including 85.9% who studied in the United States, 62.6% in Japan, 55.1% in Australia, 53.2% in the United Kingdom and 52.4% in France (Iguchi, 2003, p. 49).

The United States encourages cross-border research degrees as a way to build its capacity as a knowledge economy. In 1997, foreigners earned 45.8% of all doctoral degrees in engineering, 43.9% in mathematics and computing, and 30.6% in natural sciences (Cervantes and Guellec, 2002a, p. 78). In 2000, more than 50% of doctoral students from China and India who were studying in the United States had “firm plans” to stay upon completion of their studies (Tremblay, 2002, p. 44).¹ Over the period 1981-90, India provided 3.6% of total immigration to the United States but 13.4% of professional highly skilled migrants. In the 1990s there were sizeable net movements of Indian software professionals to the United States, the United Kingdom, Canada, Germany, Australia, Singapore and some western European nations (Gayathri, 2002, pp. 202-205).² In the Philippines an estimated 30-50% of IT workers and 60% of doctors emigrate. “Brain drain” is affected by relative earnings as well as opportunities and can occur in fields where local opportunities are abundant, generating labour shortages. Over 70% of the 7 000 nursing graduates each year leave the Philippines, where there are about 30 000 unfilled positions in the public and private sectors. Whereas professional Filipino migration to East Asia or the Middle East tends to be temporary, designed to augment family earnings back home, migration to North America tends to be permanent. Like the Philippines, Sri Lanka is a net labour exporter with a similar mix of temporary and permanent departures (Skeldon, 2003, p. 15; ILO, 2003, pp. 74-75). Even Australia and Japan are affected by “brain drain”. Only the United States, the global magnet for highly skilled people – 47% of all foreign-born PhD graduates remain in the United States – largely avoids the downside of mobility (Tremblay, 2002, p. 44; Cervantes and Guellec, 2002a, p. 92).³

However, to understand “brain mobility” simply as a one-way transfer of human resources and revenues is to misunderstand it. While “brain exchange” is not symmetrical, there are flows in both directions. Highly skilled migrants do not transfer completely: many retain active links with their country of origin, reinvesting and sometimes migrating back. In the longer run, the global pull of India, China and others will increase, as local business, earnings and employment opportunities grow. American stay rates for graduates from the

developed economies of Korea, Japan and Chinese Taipei are significantly lower than for China and India. In the second half of the 1990s, the Japanese rate was 13% and the Korean rate was 11% (Cervantes and Guellec, 2002a, p. 92).

The global role of Australia

In Australia, the number of full-fee international students has grown very rapidly, particularly in higher education and specialist English-language colleges. In the last decade, its share of the world population of foreign students has doubled, from 4% to 8%. In 2001 Australian universities earned USD 756 million from foreign students in tuition revenues (DEST, 2003) and education exports generated overall USD 2.15 billion, 13.1% of total Australian trade in services (see Chapter 1, Table 1.3). In 2001, foreign students represented 13.9% of all students, the second highest level in the OECD after Switzerland and 18% when foreign campuses and distance education are included (IDP, 2002). Yet the Australian export industry is less than two decades old and emerged from a system in which no tuition fees were charged to any students, and foreign-student numbers were subject to strict quotas.

Comparisons with the United States and the United Kingdom point up Australia's characteristics as an education exporter. Its exports are concentrated in the Asia-Pacific region, reflecting its geographic location. Australian exports are more concentrated than American and British exports in terms of fields and levels of study. Foreign students mainly study business and computing/ICT. In comparison to other English language providers, Australia attracts a lower proportion of foreign students to the science-based disciplines, including engineering and agriculture, and a lower proportion to the humanities/arts than the United States, the United Kingdom and western Europe. Only a small proportion of Australia's international students are in postgraduate research programmes: while 18.1% of foreign students in Switzerland are in advanced research programmes, 16.6% in the United States, 11.6% in the United Kingdom and 11.2% in Austria, in Australia there are just 5.4% in research master's or doctoral programmes (OECD education database). Australia recruits well, especially in business and ICT, enjoys a cost advantage relative to the United States and the United Kingdom, provides a relatively low-risk environment and is located at the edge of Asia (AEI, 2003; Marginson, 2001).

Student flows into the Asia-Pacific countries

As Table 4.12 shows, flows of international students out of the Asia-Pacific region are not matched by student flows into the region. Among the OECD countries, Australia and Japan are the main regional providers, and most of their foreign students are from within the region. Australia's main sources are Singapore; Hong Kong, China; Malaysia; China and Indonesia. Japan's are China and Korea. In Australia and New Zealand, as in the United Kingdom, foreign students pay higher tuition fees than most domestic students. In Japan and Korea fees are the same for both. In New Zealand, foreign students represented 6.2% of enrolments, but only 1.6% in Japan. For other regional providers, foreign students were 3.4% of students in Malaysian tertiary education in 2000, a rapid increase from 0.7% in the previous year, and 0.1% in India, the Philippines and Thailand (OECD education database).⁴ These figures and Table 4.12 probably understate the role of regional nations as cross-border providers, partly because the non-university tertiary sector is not fully covered. Skeldon notes that there were 78 812 foreign tertiary students in Japan in 2001, 44 711 in China in 1999 and 7 300 in Chinese Taipei in 2000 (Skeldon, 2003, p. 15).

Table 4.12. **Foreign students enrolled in selected Asia-Pacific countries, by origin, 2001**

Country of study	Continent where students were from:							TOTAL
	Asia	Oceania	Africa	N. America	S. America	Europe	Unknown	
<i>OECD nations</i>								
Australia	77 849	6 534	3 837	5 477	920	12 763	3 409	110 789
Japan	58 170	443	676	1 474	761	2 106	7	63 637
Korea	3 299	28	44	220	41	135	83	3 850
New Zealand	7 971	1 200	143	648	106	998	3	11 069
<i>Other nations</i>								
	4 004	31	2 558	275	0	120	0	6 988
Indonesia	266	31	3	26	0	51	0	377
Malaysia	16 217	57	1 552	67	24	553	422	18 892
Philippines	1 656	28	69	503	4	63	0	2 323
Thailand	1 445	30	19	113	4	147	750	2 508

Source: OECD education database.

Despite the massive flows in the other direction, few students go from the United States and the United Kingdom to the Asia-Pacific region. Most of these enrol in Australian institutions. Australia also exhibits the characteristic Anglophone asymmetry. In 2000 there were close to 20 times more foreign students in Australia than domestic students studying abroad, an even higher ratio than the United States (Table 4.13). In Japan the flows are balanced, while in Korea student outflows are much higher than inflows.

Among students from OECD countries who study abroad, Japanese and Korean students systematically enter foreign language environments. In 1998, 92.2% of Japanese students and 63.1% of Koreans studied in English. The majority from Australia (78.3% in 1998) and New Zealand (96.4%) enter other English-speaking systems. Of the 21.7% of Australians going to other linguistic environments nearly all enter French (9.4%) or German (7.0%) universities. Only a handful of Australians study in Asia-Pacific universities where Chinese languages, Japanese or Bahasa are spoken. However, this may change in the future as it becomes more common for Asian languages to be studied in Australian schools.⁵ This pattern is similar for the United States and the United Kingdom, where more than half the students studying abroad enter English-speaking institutions, and the rest mostly speak French or German, particularly American students (OECD, 2002d, p. 60).⁶ This may limit the English-speaking universities' current capacity for internationalisation in the Asia-Pacific region.

Regional convergence?

Does the Asia-Pacific region constitute a single "market" or the regional node of a single "world market" in education? The question is misleading. First, there is much more to cross-border activity than trade relations. Second, the trade dimension – which plays a larger role in some countries than others and in some disciplines, such as business studies, than others – consists of several interlocking markets rather than a single market. There are markets in face-to-face courses in certain fields; in short courses in English and other skills; in online delivery by non-profit and commercial providers; in patents and commercial research; and in academic labour itself. Third, cross-border education involves a complex pattern of bilateral and multilateral relationships among Japan, Korea and

China; within South Asia; among Malaysia, Singapore and Indonesia; between Australia and New Zealand; between Australia and Japan, and so on. These relationships are conditioned by long-term geographical and historical-cultural factors and are continually being reshaped by economic capacities and incentives.

Table 4.13. Number of foreign students compared to number of domestic students abroad, selected nations in the Asia-Pacific region compared to OECD, 2001

	Foreign students, 2001	Foreign students as % of all students in domestic system, 2001	Domestic students abroad, 2001	Domestic students abroad as % of all students in domestic system, 2001	Foreign students as ratio of domestic students abroad, 2001
<i>OECD nations</i>					
Australia	110 789	13.9	4 805	0.6	23.06
Japan	63 637	1.6	55 041	1.4	1.16
Korea	3 850	0.1	70 523	2.3	-18.32
New Zealand	11 069	6.2	6 165	3.5	1.80
<i>Other Asia-Pacific</i>					
	--	--	124 000	1.0	--
Malaysia	18 892	3.4	32 709	6.0	--
Philippines	2 323	0.1	4 758	0.2	--
Indonesia	377	n	26 615	0.9	--
Thailand	2 508	0.1	18 172	0.9	--
India	6 988	0.1	61 179	0.7	--
<i>United States</i>	475 169	3.5	32 549	0.2	15.79
<i>United Kingdom</i>	225 722	10.9	27 358	1.2	8.96
OECD as a whole	1 580 513	5.3	664 437	--	2.36

-- Data not available. n: negligible

Source: OECD education database. See note of Figure 1.2

Will the Asia-Pacific region come to play a more coherent educational role? Most Asia-Pacific governments support cross-border links in education as one means of integrating nations for military-strategic, economic and perhaps cultural reasons. There are many instances of government-supported bilateral programmes in international education. Efforts at convergence are localised rather than regional, such as collaborative programmes between institutions and educational agreements between neighbouring states. There is nothing like the European Union or the Bologna declaration. Multilateral activities are on a modest scale: for example, the Association of Southeast Asian Nations (ASEAN) countries maintain formal programmes for student and staff exchange, and research collaboration. In the Asia-Pacific region, the main dynamics are not among the countries in the region, they are between regional nations and the English-language providers, especially the United States. The Asia-Pacific countries share parallel rather than common educational relationships with the English-language providers.

4.2. Policies and rationales

If European higher education is primarily policy-driven and US higher education is a market dominated by the leading universities, then Asia-Pacific higher education relates variously to the state, universities and academic networks, students and families, and national and cross-border market forces. Some public universities are administered by government departments or are directly regulated by the state, as in China and Singapore.

In the Philippines, Australia and New Zealand, the government steers from a greater distance and university autonomy is the norm. In China, Malaysia, Japan and Indonesia, there are moves to increase institutional autonomy. Generally, the more prestigious the university, the greater its scope to act. Private-sector institutions are regulated but less closely than public institutions. In some countries, universities operate in the global sphere as independent agents; in others, cross-border dealings are supervised closely; in still others, no universities are capable at this time of a global role. In most cases, students who access foreign higher education are only subject to light or moderate regulation by national governments. Compared to education in national systems, the hand of national government is weaker in international education and institutional autonomy and market forces are stronger, except in the case of foreign campuses and courses on national soil.

In economic terms, international education is financed by a mix of private investment by students and families; scholarship and subsidy support from national governments, foreign universities, private foundations, global agencies and non-government organisations; and donations in kind, particularly in the form of shared labour time and communications by educational institutions and their personnel. The costs and benefits are many and overlapping. The commercial production of international education generates positive externalities in the form of closer cultural and political ties, the augmentation of basic research and the strengthening of the national educational infrastructure. In turn this creates long-term potential for international trade in all sectors. The establishment of closer educational ties across national borders, which increases national and global educational public goods (Kaul et al., 1999), opens greater potential for individual investment in private education.

Three broad rationales shape the internationalisation of education in the Asia-Pacific region: demand for foreign education by students and their families, the policies and priorities of national governments, and the interests of foreign and local institutions. To a lesser extent, education is also affected by global rationales and by international organisations agencies such as the World Bank. The most dynamic and important element is the growing demand for cross-border education.

4.2.1. Student demand for cross-border education

In addition to the demographic and economic growth of the Asia-Pacific countries and the growing demand for mobile labour, the demand for cross-border education is also driven by the age-old desire for individual betterment. Cross-border work and study constitute an ever-expanding route towards educational and social advancement beyond the confines of the nation. Increasingly, the drive for upward social mobility can be pursued on the global scale. Communications, including e-mail and Web sites, make this larger setting more accessible. If tertiary education was always a positional good (Hirsch, 1976), cross-border education offers a much larger range of content and price options. Also, cross-border education broadens the options of students and families who see education as personal development, formative of mind and personality. According to the OECD study, *China in the World Economy*:

“The explosion in [educational] participation is a direct response to combined social and economic demand. As economic conditions improve and the Chinese people enjoy more prosperous lifestyles, the demands and expectations of parents for the education of their children grow, especially for university education. It is no longer simply a case of aspiring to attend a university, but, rather, of going to a good one. While in the past families built up savings in order to pass on the wealth to their children, they are now more

interested in using these savings (estimated at RMB 60 trillion) to invest in their children's education. This is a distinctive Chinese cultural feature, which is not found in countries that opt for high levels of public spending (OECD, 2002e, pp. 789-790)."

The drives for economic gain, for social status and cultural distinction, and for learning and personal cultivation are difficult to separate, in the social sciences or in real life. Demand for cross-border education is shaped by several factors:

- The availability of educational opportunities in the country of origin. Significant unmet demand among middle-class families for good quality tertiary education is a major driver of foreign education in countries such as China, Thailand and Malaysia.
- The financing of educational provision in the country of origin. If good quality education at home is provided free of cost or nearly so, families will be less interested in investing heavily in cross-border education, though some will still do so.
- The educational opportunities available offshore.
- The aggregate cost of those opportunities, including the scope to work while studying.
- Economic, social and cultural motivations leading people to favour a cross-border education, especially an English-language education, including the potential for migration. These motivations function whether or not there is unmet domestic demand.
- The freedom and economic capacity to access cross-border education.

4.2.2. Government policies and strategies

Regional governments are committed to international relations in higher education for several reasons. In the emerging East and Southeast Asian nations, foreign education augments insufficient domestic capacity. Higher education is also a primary vehicle for modernisation, and "internationalisation" means opening to and selectively appropriating foreign models for national purposes. Here the economic benefits of educational internationalisation are necessary to national technology and business capacities in a global context. In developed exporter nations, such as Australia and New Zealand, international education directly augments revenues. In both importer and exporter nations, the flow of foreign students and the negotiation of cross-border twinning, franchising and accreditation/recognition arrangements bring institutions from different countries closer together; this tends to encourage cross-border academic relationships. In extending their educational capacity via cross-border linkages, nations improve their global competencies, raise academic quality and enrich their research and innovation systems. The various policy rationales for the internationalisation of education tend to overlap. There is more synergy between cultural, academic, political and economic aspects than the framing of debate as "trade versus aid" suggests. Aid opens up zones for trade. At the same time, while the region is the most active sphere for world educational trade, such trade sustains large-scale cultural contacts and is a powerful vehicle for encouraging all kinds of cross-border mobility of people and ideas.

Governments are well placed to advance or hinder cross-border links. Much of the impetus for the globalisation of higher education is due to government policies and programmes. If trade and competition in education are market-driven, then governments have been instrumental in establishing the regulatory framework for trade and in shaping investment in human capital as a commodity (Marginson, 1997). If educational collaboration is sustained by academic cultures and at least partly separate from the state,

these autonomous cultures nevertheless owe their existence to long-term public investments in basic research and academic scholarship. Cross-border partnerships between individual institutions are often supported by government funding.

Policy options and mechanisms

Governments shape the internationalisation of education in three main ways: by regulating cross-border flows, by subsidising individual students and by establishing programmes designed to encourage cross-border linkages, collaboration or trade.

Regulatory frameworks differ from country to country. In contrast to Europe, there is no supra-national authority to encourage a common approach. Regulation has been largely shaped by national interests and national political contexts, and has tended to lag behind the explosive worldwide growth of direct institution-to-institution and institution-to-student relationships, particularly in cross-border distance education. Where frameworks are incomplete or ambiguous, national decision making is more likely to be arbitrary and politicised, with a potential to retard both academic and commercial exchanges.

In the exporter nations of Australia and New Zealand, the main policy objective is to sustain the flow of net revenues from foreign students, thereby reducing the fiscal cost of higher education. However, they recognise that benefits of cross-border education to their countries are more than just financial. Their export industry is regulated through economic incentives, visa rules and negotiated country-to-country protocols; and, as in the United Kingdom, it is underpinned by a national system of quality assurance. Australia protects its domestic system by confining subsidies to local institutions, restricting the use of the term “university” and subjecting the accreditation of private providers and courses to government approval.

In contrast, most importer nations supervise cross-border dealings directly. For example in Malaysia; Singapore; Hong Kong, China; China and Vietnam, movements of personnel, institutions and programmes into the country must be specifically approved by the national government. However, online education is technically difficult to track and largely exempted from controls unless associated with an onshore presence, such as a local partner organisation, which makes supervision easier. In all countries, regulatory frameworks determine the recognition of foreign qualifications; this affects the local value of foreign qualifications and thus students’ incentives to study offshore. Once a student goes offshore and leaves the national jurisdiction, the regulatory role of the importer nation recedes, and the regulatory framework of the exporter nation becomes more important. Malaysia has offices in some countries where its citizens are educated, but most importer nations provide little offshore back-up. International students may lack the social protection normally provided to citizens, such as health services, which are no longer covered by their own country while they lack entitlement in the country where they study.

Governments support the international education of individuals via scholarship and sponsorship arrangements that shape patterns of movement. Malaysia provides extensive scholarships through the Public Service Department, Ministry of Education, and MARA, for the bachelor level and for the postgraduate training of teachers, academics and public servants, mostly in the United Kingdom and Australia. Nearly all the scholarships are allocated to ethnic Malays and others classified as *bumiputra* (sons of the soil) rather than Chinese and Indian students whose families must invest privately in offshore courses. Thailand also provides scholarships for public officials and students. In 2001,

5 206 scholarship holders were sent abroad for education, 45.9% to the United States and 21.6% to the United Kingdom, 8.6% to Australia and 8.5% to Japan (Chalamwong, 2003, p. 61).

Governments also fund a range of cross-border programmes, for example in languages. In most non-English-speaking nations, English-language competence has become a primary concern. Although private returns to English-language skills are often good, demand for these skills is often insufficient to meet needs. Governments encourage the mastery of English by importing foreign English teachers into the national system and sending nationals to study abroad. Some also promote their own language and culture in the global setting via exchange schemes and language programmes for foreigners on shore. Japan has pursued such programmes. Other kinds of programmes sponsor academic exchange and research collaboration (see Section 4.4.3) and student exchange (see Section 4.4.1).

4.2.3. Educational institutions

The relations of Asia-Pacific tertiary institutions with the broader world vary. Strong universities and those specialising in fields such as IT or medical research often have many well-developed cross-border relationships. Many others sustain some cross-border activity through research, staff exchange or international students. Still others are entirely focused on local concerns. Other things being equal, universities with high status and strong resource bases have the best opportunities to invest in global developments, given the medium-term risk horizons and the role of reputation in attracting international partners. Nevertheless, the leading national institutions are not always the most enterprising. Once the minimum necessary resource threshold is reached, global competition may be more open than national competition, providing emerging institutions with the opportunity to “trump” local competitors and move up the national hierarchy through global initiatives that attract resources and prestige.

Individual universities often cite internationalisation as part of their programmes of internal reform, and an orientation towards the global environment is a key factor in leadership strategies (Marginson and Considine, 2000). Cross-border activity is a means of gaining autonomy from government, and a measure of autonomy is a necessary condition for the direct institution-to-institution dealings that are essential to global effectiveness. Moves towards university autonomy are often coupled with globalisation. The Indonesian government recently established five semi-autonomous universities with greater freedom to raise and spend funds. At the University of Indonesia, the move to autonomous responsibility is linked to the need to respond effectively to globalisation, to generate income and to create relations with industry (Marginson and Sawir, 2003).

Many universities from outside the region, noting opportunities for revenue raising and academic collaboration and the long-term potential, especially in China, are active in the Asia-Pacific region. English-language providers are more focused on student recruitment, western European universities on knowledge exchange. Cross-border visits and memorandums of agreement have mushroomed. The commercialisation of higher education in Asia has affected relationships between Asia-Pacific countries and foreign institutions in many ways. It has fostered a climate of export competition, so that by attending market fairs, by examining Web sites and course catalogues, and by consulting agents, students aim to be well-informed “consumers” of foreign offerings. At the same time, host countries have used their prerogatives and responsibilities to be selective about the kind of education they allow into their system, to set conditions and to shop around.

In Malaysia; Hong Kong, China and Singapore, and increasingly also in China and Indonesia, there has been widespread adoption of twinning, franchising and other partnership arrangements between local institutions and English-language providers, especially from Australia and the United Kingdom. In twinning programmes students enrol in the Asian country for stage 1 of the degree or diploma and move to the foreign country for stage 2. In franchising programmes, the whole programme is provided in the Asian country with the foreign institution providing curricula, assessment and quality assurance as well as putting the university crest on the degree certificate. The quality of provision is more readily maintained under twinning arrangements, where the practical requirements of stage 2 force an effective alignment of stages 1 and 2, than with franchising. At worst, franchising can be a cynical exercise whereby a local provider “rents” the English-language university credential while providing teaching and assessment of dubious value. In response to such problems, UK and Australian authorities have strengthened offshore quality audits.

Government programmes to facilitate cross-border research collaboration are designed to increase the speed and volume of knowledge transfer, and to “globalise” research awareness, so that researchers focus on the larger map of international practice instead of confining their vision to the work of their national peers. This is a particularly important issue in countries where English is learned as a foreign language, such as China, Korea, Indonesia and Thailand. It is also an issue in Malaysia where much of the output of research and scholarship is locally refereed and confined to nationally circulated journals that remain unknown offshore. Among universities in the developed world, located both inside and outside the region, some have specialised in Asian and Pacific studies, such as Leiden University in the Netherlands and the Australian National University which has many academic links in the region (see Section 4.5.2).

4.2.4. Global rationales

International agencies and non-governmental organisations (NGOs) affect cross-border education by influencing government policies and institutional behaviour and by funding individual students. National governments have limited fiscal scope to pursue modernisation projects and may be subject to political and cultural constraints. The World Bank and the Asian Development Bank provide loan and aid programmes in many countries, including programmes to improve higher education and research capacities, change policy priorities and transform institutional cultures. For example, bilateral and multilateral aid organisations are active in numerous projects in China. Such programmes tend to emphasise internationalisation objectives – international agencies and NGOs have a *prima facie* faith in internationalisation as a medium of development – and may encourage longer-term international perspectives and linkages that outlast the period of dedicated funding.

National governments and institutions also take a global perspective directly. The leading Asia-Pacific universities now take a global view (while the horizon of lesser institutions remains national or provincial). Increasingly, university performance is judged against internationally recognised indicators such as research and publications. Meanwhile, the mentality of policy makers is also shaped by models derived largely from the United States and the United Kingdom – mixed public and private funding, university autonomy, market competition, industry-university links, quality assurance systems and performance management. American models play a growing role in the Asia-Pacific region, particularly in countries with historic ties to the United States such as Korea, Japan, Chinese Taipei and the Philippines. UK institutions exercise a normative influence in the

former British colonies of Hong Kong, China; Malaysia and Singapore; and in South Asia. Hong Kong, China; Malaysia and Singapore also deal extensively with Australia and New Zealand, which bear a British stamp. Nevertheless, the region is not solely focused on the English-speaking world. Most Asia-Pacific nations support active linkages with European universities, especially in Germany, France, the Netherlands and Scandinavia. French institutions retain some authority in Indochina. China, Thailand and Indonesia, where the British and/or American influence is historically weaker, network widely in both English-speaking and the western European worlds, as well as to regional nations such as Japan and Australia. Throughout the region, policy makers and university leaders are interested in examples from more successful economies in the region itself. Japan was long the Asia-Pacific nation most likely to be cited in other countries. Now Indonesian university leaders' statements about international models that impress them cite China, Singapore, Korea or Malaysia (Marginson and Sawir, 2003). Singapore's efforts to position itself as a hub in the global knowledge economy are widely respected.

Imperatives to globalise are sometimes in tension, sometimes in harmony with national objectives. In China state higher education institutions reflect national policy and are the principal sites for China's international relationships. China wants to develop a system of world-class universities, which by definition means internationalised universities. This requires a major cultural change in education given that China, like other Asian countries, faces a largely English-language form of globalisation. At the same time these world-class universities will be expected to be vehicles for both sustaining a national identity and fashioning a distinctive Chinese contribution to the world through education and research. Xiamoming and Haitao (2000) discuss these tensions in Chinese higher education. Similar tensions have long been unresolved in Japanese universities. The same story is now being played out in higher education in many Asia-Pacific nations.

4.3. Policy instruments

The policy instruments at the disposal of national governments are employed to secure three broad sets of objectives, severally and together, through measures designed to advance the internationalisation of higher education and research. These are education capacity-building objectives; academic, cultural and political objectives; and trade objectives.

4.3.1. Meeting capacity-building objectives

For Asia-Pacific governments' intent on building national capacity through education and research, cross-border education constitutes a valuable policy tool. The capacity-building objective is consistent with both "aid" and "trade" approaches to international education. The international mobility of students and programmes can enhance nations' ability to meet the demand for education despite budgetary constraints. It offers opportunities for the development of human resources and the expansion of the professions, the training of government personnel, and the enrichment of science and industry. Foreign education can broaden the range of specialisations, for example in expensive science-based areas. Foreign education provided within the country supplements the education infrastructure and local skills. Collaborative research across borders can transfer knowledge and technologies. The mobility of students and ideas enhances the effectiveness of nationally based institutions, especially when the movements are multi-directional and there is an approximate symmetry between inward and outward flows.

Yet cross-border education can be a mixed blessing for national capacity: inward and outward flows are not always symmetrical. By no means all offshore students return, especially those in sought-after and strategic areas such as engineering, IT, biotechnology and the teaching of English. Graduates who do return may lack opportunities to use their training. Foreign providers operating inside the country, including online providers, are often more interested in generating revenue than in transferring knowledge. Regulating cross-border education so as to maximise the benefits for capacity building is a challenging task for Asia-Pacific governments.

Governments find themselves grappling with several associated policy questions:

- *What is the required national capacity? What level and type of education provision and enrolment? What mix of specialisations and general (foundation) education? How broadly should tertiary education be provided across different socio-economic layers and ethnic groups which might have a differing capacity or inclination to invest privately?*
- *Government as provider and/or government as regulator? To what extent should national education capacity requirements be met by direct government provision and/or public financing of institutions and/or individuals? To what extent should national capacity be created through private investment and to what extent in institutions, including cross-border ones, operating at arms length from national government?*
- *National providers or foreign providers? To what extent should national requirements be met by local institutions and by foreign providers? What are the implications for patterns of public/private investment and educational regulation, for example quality assurance?*
- *Foreign provision in foreign countries and/or foreign provision at home? To what extent should foreign provision be developed onshore (within the nation) in the forms of franchising, twinning, foreign campuses and/or cross-border distance education?*
- *Minimising brain drain and maximising brain gain. If students are being educated offshore, what mix of policies will maximise their future contribution to national capacity? What policies will attract expatriates and foreigners to work in the nation?*
- *Augmenting research and maximising technology transfer. What is the best way to develop effective cross-border research collaborations so as to maximise the building of national intellectual and technological capacity now and in future?*

Asia-Pacific nations are not operating on a level playing field. They have different economic and education potentials and approach these issues from different starting positions. Nations such as Singapore, with strong education and research infrastructures in some fields, can make meaningful choices between local and offshore training. They might invest in collaborative international ventures or they might concentrate on building local infrastructure. For others, with greater dependence on cross-border education, it is a question of maximising the benefits, minimising the down side, and if possible setting policies in place that will build local capacity in the long term.

4.3.2. Building national capacity

China wants to be a middle-income country by 2020. Tertiary education is central to the national growth strategy. It is expected to provide the emerging generation with ICT skills and specialist training and constitute the framework for lifelong learning and adult retraining. It is planned that it will reach 15% of the 18-22 age cohort by 2010, compared to 11% in 2000; social

demand for education is growing so rapidly that the 15% target will probably be reached in 2005/06, as the pressures for rapid expansion seem overwhelming. One estimate suggests that annual demand for higher education in China will grow from 8.1 million students in 2000, to 44.6 million in 2025 (Bohm *et al.*, 2002, p. 37). While China is creating mass tertiary education it also plans a modernised internationally competent elite sector. Project 211 is designed to create 100 high-quality universities offering study in key disciplines (OECD, 2002e, pp. 787-791).

New tertiary education infrastructure is expensive and takes time to build. In China, this raises complex problems of national/regional/local co-ordination and of distance provision. New staff and staff retraining are required on a massive scale. For example there is a severe shortage of English-language teachers and trainers of English teachers at all levels of education. Many graduates in English move to better-paid positions in the business sector rather than stay in public employment. The level of per capita taxation is half that of India, and bricks-and-mortar education financed by the state is unlikely to grow quickly enough to meet either government targets or social demand. This creates the need for alternative forms of provision and financing: student tuition charges, the growth of private education inside China, distance education using broadcast and online technologies, and foreign provision either within or outside China. Demand for foreign education is driven both by inadequate capacity and by investment in position. Given that unmet demand for education is potentially high and alternate methods of financing and provision will probably provide for a large part in future, China's scale has immense implications for the global development of cross-border and distance education.

Other larger Asia-Pacific nations with potential for unmet demand for tertiary education on a massive scale are Thailand (Hirsch, 2002, p. 5) and Vietnam. With its low national expenditure on education, Indonesia offers explosive potential for unmet demand but has been retarded by under-development, political unrest and a faltering growth rate. The Philippines already has an extensive infrastructure and relatively high participation, but because education is under-funded and much of the infrastructure is poor, there will be growing demand for foreign education as a substitute for local offerings. From the capacity-building viewpoint it would be better to reinvest in local infrastructure than to subsidise foreign study.

As noted, Malaysia and Korea invest heavily in education, yet the patterns of foreign education suggest that national capacity is inadequate. Malaysia combines very high public funding with middling participation, especially outside the main cities, and modest R&D at 0.6% of GDP. Per student funding at the tertiary level is USD 7 924, slightly below the OECD country average, yet tertiary participation rates are less than half the OECD level. In the 1990s the government encouraged a regulated private sector to soak up unmet demand, but Malaysia still depends heavily on foreign education for both government-sponsored and private students. If upper secondary participation rises to OECD levels, demand pressures on the inadequate tertiary infrastructure will increase. An extraordinary 0.6% of GDP is absorbed in scholarships and loans largely for *bumiputra* families. This sustains the ethnic imbalance in domestic participation instead of funding a commonly accessible education infrastructure directly. Policy favours overseas research training rather than building domestic research capacity. Doctoral graduates returning to universities and government often lack facilities to continue their line of specialisation. Sponsored doctoral degrees, most accessed by *bumiputra*, function more as a system of selection for professional careers than as platforms for research work. Malaysia's engagement in foreign education needs to complement national capacity rather than retard it.

Korea spent 13.3% of GDP on education in 1995, including 4.4% in public financing, 5.7% in private spending on tuition, books, transport and other education-related costs, and 3.2% on private tutoring (OECD, 2000). The last is spent by parents to secure an advantage in the competition for tertiary places. Private investment in tutoring is encouraged by large class sizes in the public sector and intensive competition for preferred tertiary institutions: universities are officially ranked, and institutional quality and status are highly stratified. In turn, high private investment and stratified tertiary participation encourage families unable to access leading national universities to invest offshore. The OECD (2000, p. 15) comments that Korean investments “have not been put to the most efficient use”. In certain respects Korean education is remarkably successful: illiteracy has been virtually eliminated, measured educational attainment is at the highest international levels, secondary education is virtually universal, more than four-fifths of high-school graduates enter university or college, drop-out rates are very low and gender disparities virtually absent. Yet as in Malaysia, too many resources are used to create positional benefits for individuals rather than to fund the common institutions. There is much dissatisfaction with those institutions. Schools are seen as tradition-bound and didactic, and universities as underperforming in research and insufficiently internationalised. Foreign education ought to be feeding into domestic strengths rather substituting for them.

4.3.3. National capacity and foreign providers

To meet unmet demand, Asia-Pacific governments face hard choices. They need elite specialists and globally competent sub-populations, but they also need to distribute education more broadly and equally. The fruits of economic development are already shared unequally between a modernising urban sector and the rural hinterland and urban unemployed. In Vietnam in 1998, 75% of the wealthiest quintile participated in upper-secondary education and 37% in tertiary education; among the poorest quintile the rates were 8% and 0.4% (Nguyen, 2002, p. 3; see also Bhushan *et al.*, 2002).⁷ Alternate mechanisms such as tuition-based private colleges, technology-based distance education and foreign provision onshore or offshore are more readily accessible to urban and high-income families than to others. With participation already distributed unevenly, the wrong strategies will exacerbate the gap between haves and have-nots.

In relation to foreign providers, the cheapest and quickest policy outcomes are derived from training outside the country, especially training financed by students and families themselves. Politically it is easier for governments tacitly to encourage offshore movement to tuition-charging locations than to extend fee charging at home, especially in public-sector institutions. Yet privately funded offshore study generates weaker economic and educational returns than any other mode. First, privately funded offshore graduates are less likely to return than public students subject to bonds and other conditions. Second, while offshore education augments the human capital of individual graduates, public good spillovers are minimised: unless the right kinds of work organisation, infrastructure and personnel are in place, the knowledge and skills brought back by overseas graduates will be underutilised.

Foreign education within the nation can create broader benefits. It can foster academic jobs and expand infrastructure (classrooms, libraries, laboratories and IT equipment); create educational programmes and textbooks; and add testing services, administrative systems and policy blueprints. Foreign providers may put competitive

pressure on local providers and generate useful imitations. Policy statements from several countries note the capacity-building potential of institutional and programme mobility. China wants to “attract high quality educational resources from overseas” to “introduce globally advanced curriculum and teaching materials which are in urgent need in China” (NCN, 2003). Indonesia has made legal provision for locally based co-operation with foreign universities to “improve and enhance the performance of higher education” and to “maintain, develop, empower and expand science, technology and/or arts”. Malaysia has admitted several foreign branch campuses (see Section 4.4.3). Singapore has also encouraged foreign providers. In Korea, however, restrictive national regulations governing the size of campus lots and the facilities provided create prohibitively high costs, particularly in Seoul. The norm of low tuition fees is another barrier (OECD, 2000, p. 69).

Foreign providers inside the country raise new issues. Local providers may resent the competition. The foreign curriculum is less readily regulated and might undermine, or be seen to undermine, local culture and educational traditions. National governments must decide the extent to which they want foreign providers to offer diversity and difference and the extent to which they must be homogenised as a part of the national system.

4.3.4. Brain drain, brain gain and brain exchange

Governments must not only minimise “brain drain” but maximise “brain gain” and facilitate “brain exchange” on advantageous terms. For example Singapore loses some graduates and working professionals to the United States and western Europe, but draws lower-cost immigrant IT workers from China and Malaysia. Like the United States, Australia and New Zealand have offered IT professionals preferential visa treatment. “Brain drain” affects developed countries such as Australia, Japan and Korea as well as the developing countries. There is also “brain gain” in some developing countries, though net “brain drain” is much more serious there than elsewhere. Chinese Taipei turned its net loss rates around by combining economic development with public subsidies to encourage graduates to return. The proportion of returning graduates rose through the 1980s and into the mid-1990s at which point it was possible to withdraw the subsidies.⁸

Rates of return are affected by a number of factors: whether the students are state-sponsored or private; whether graduates can emigrate to the country of study, or elsewhere, including national policies on citizenship and dual citizenship; availability of fast-track visa schemes; work opportunities at home and overseas; relative earnings and conditions of work; and relative attractiveness of living in different countries. Governments can use policies and programmes for cross-border training, with differential effects on return rates, to fashion national capacity selectively. For example, Malaysia secures very high return rates among government-sponsored students, mostly *bumiputra*, through the bonding conditions attached to the scholarship and through career prospects on return. The return rate among privately supported students with no career guarantees, mostly from Chinese and Indian families, is less favourable to the nation.⁹

4.3.5. Cross-border research collaboration and higher education capacity building

In much of the region, international research collaboration and knowledge transfer are retarded by underdeveloped research capacity. Even in affluent regional economies other than Australia and New Zealand, university research constitutes a smaller share of national R&D effort than in most of OECD Europe and North America, thereby limiting basic research and doctoral training. The first priority in higher education has been growth

of student enrolments and resources for teaching. No doubt the high costs in science-based fields deter many governments from starting the long process of building research infrastructure of international quality at university level. Nevertheless Japan; Korea; Chinese Taipei; Singapore and Hong Kong, China have boosted research funding in universities. Singapore universities are a major part of the national R&D effort and the National University of Singapore accounts for one-tenth of R&D (Braddock, 2002). Cross-border higher education offers one means of fast-tracking the development of university research. In Hong Kong, China and Singapore, international linkages between universities are now well established and contribute significantly to the development of local university research. Universities in Hong Kong, China also function as a knowledge “bridge” between China and the West (Postiglione, 2001, 2002). In Korea, the government established the S&T Globalisation Strategy in 2001 to facilitate cross-border work.

To join the global knowledge circuits, Asia-Pacific researchers and academics need more than the willingness to collaborate and learn: they must have something to offer. Investing in research infrastructure and grants builds local potential directly, and also indirectly, via feedback effects from cross-border capacity and higher graduate return rates. “Countries that have succeeded in fostering the return of skilled migrants have done so not just through specific return migration programmes but through long-term and sustained efforts to build the national innovation infrastructure” (Cervantes and Guellec, 2002a, p. 92). In turn, returning graduates build more cross-border collaboration and more national capacity in a continuous global feedback loop. Where local capacity in higher education is weak, sending students abroad for research training is zero-sum to national capacity building, partly because students fail to return. Asia-Pacific nations that augment local research capacity in their universities are best equipped to gain from internationalisation. Cross-border activity is part of national capacity, but not a substitute for local capacity building. International activity and national capacity in higher education are interdependent.

4.3.6. Meeting academic, political, cultural and socio-economic objectives

Building international links in education has many and often unpredictable consequences. It is an open-ended process, paralleling the larger processes of globalisation that are its genesis and consequence. Academic links provide resources and sites that facilitate diplomatic and political relationships and aid economic relations in education and other sectors. Trade relationships generate closer cultural contacts, develop linguistic skills and facilitate public knowledge goods. Student and staff exchanges create networks with multiple potentials. Cross-border activity feeds on itself and readily spills over into new spheres. Governments throughout the region are committed to cross-border educational links regardless of the degree to which they pursue trade objectives in education or use cross-border education as a means of augmenting national capacity. This commitment is furthered through many different mechanisms: scholarships, exchange schemes, grants targeted to cross-border collaboration, the regulation of cross-border movement, and so on.

Australia: educational trade as a strategy for national realignment

In the second half of the 1980s, Australia established international marketing of education as one means of sensitising the nation to global competition (Dawkins, 1988) and establishing closer economic and cultural relations with East and Southeast Asia. The first substantial migration from Southeast Asia had been the entry of Vietnamese “boat

people” in 1975 after the war in Vietnam, a period which also saw the consolidation of diplomatic and economic relationships with China. Under the Hawke-Keating Labour governments of 1983-96, the “Asianisation” of Australia was a dominant policy theme (Keating, 1995, pp. 187-224): Australia, a power with a European heritage and primarily Asian and Pacific interests, needed to integrate more closely with the region. Education was seen as a vehicle for cultural understanding with downstream political-strategic and economic benefits. While later Australian governments have been less committed to an Asian identity, they have continued to support international education not as a source of revenue but as a mechanism for facilitating future economic relations with the Asia-Pacific countries. Cross-border business students today will do cross-border business tomorrow.

Other internationalisation strategies

Singapore has positioned itself as a global academic “hub” in the cross-border knowledge economy. It supports the involvement of many foreign institutions as “twinning” partners of local private providers and has licensed selected foreign universities to operate. As noted, it also subsidises international research linkages and has created research concentrations in fields from biotechnology to education, staffed partly by foreign academics. Hong Kong, China also sustains a relatively large foreign provider presence and an internationally active academic staff.

Malaysia’s commitment to international linkages is expressed largely by sending Malaysians offshore and encouraging them to maintain the resulting cross-border networks, rather than by encouraging foreigners to work in Malaysian public universities. Salary levels, which are centrally regulated, are a disincentive to potential recruits from Singapore, the English-speaking countries and western Europe. Most foreign recruitment is from Indonesia and South Asia on a contract basis. Permanent positions are confined to nationals and mostly to bumiputra.

In Indonesia the leading universities are committed to internationalisation strategies in the form of closer engagement with a range of high-quality American, European and other providers. At the national flagship Universitas Indonesia, several academic units have used their new autonomy to pursue international linkages directly and university leaders are active in international associations (Marginson and Sawir, 2003). In regional public universities, international engagement is modest and maintained by a handful of academics with foreign doctoral training. Concerns are voiced about the insularity of the national academic culture.

Similar concerns have been expressed about Korea where more thorough-going internationalisation of academic life is seen as one key to national development. In OECD (2000), the Korean universities were found to be too insular. Though publication rates were increasing, they remained low relative to resources; rates of cross-border ownership of inventions and patents and co-authorship of published articles were also relatively low. Korean institutions needed to network across borders more effectively, develop stronger foreign-language skills, especially in English; conduct more cross-border research ventures and contribute more to international journals; expand staff and student exchange programmes; appoint more staff from outside their own ranks; and forge joint awards with foreign providers (OECD, 2000, pp. 57-72). Under the S&T Globalisation Strategy, Korean government measures include funding the participation of foreign researchers and organisations in national R&D programmes via grants for collaboration, promoting foreign investment in Korean R&D, and expanding international interaction and exchange. One

important step has been to facilitate the employment of foreign researchers within Korea through a “green card” system (Korea, 2002).

Research by Postiglione (2001, 2002) shows that in China, academics working in universities in the most globally linked parts of the country, the Eastern coastlands and Beijing, are very aware of the imperative to internationalise. Cross-border links include research, publication and instances of joint degree programmes. At Beijing Technological University (TU), 70% of the academic staff believe that the curriculum should become more international in its focus; at Shanghai TU the proportion was 75%. At Shanghai TU, 95% of staff reported that international connections were an important factor in evaluating the performance of staff; at Beijing TU the proportion was 57%. About nine out of ten in both institutions were expected to read international books and journals.

4.3.7. Meeting trade objectives

As the governments of Australia and New Zealand see it, trade in education not only raises revenue and improves the trade balance, it also helps to shift these countries from their historic reliance on primary production (agriculture, mining, and “living on the sheep’s back”). The New Zealand Ministry of Education notes that “the export education industry is the sort of high value-added knowledge industry that has been identified as key to New Zealand’s future” (New Zealand, 2002a, p. 7). As noted, in 2001 Australia generated USD 2.15 billion from education exports, or 13.1% of services exports. A net USD 107.1 million was obtained in revenues for distance/online and offshore-provided education. International tuition provided 11.4% of Australian university income from all sources (DEST, 2003). In 2001 New Zealand education exports were worth USD 353.5 million, or 8.1% of total services exports. The corresponding US figure was 4.2% (see Chapter 1, Table 1.3). Both governments emphasise that this trade promotes both the financial and non-financial benefits of international education. In its Negotiating Proposal for Education Services submitted to the World Trade Organization (WTO), Australia “sees the liberalisation of trade in education services as the most effective way of encouraging the internationalisation of education and enhancing flows of students between countries” (WTO, 2001a). New Zealand notes “significant wider benefits in domestic education and in the development of international relations and trade” (New Zealand, Ministry of education, 2002a).

Australia: co-ordinating the competitors

The Australian government established the commercial marketing of university education in 1985-88 at the same time as it established competition for public and private revenues as an integral part of the co-ordination of the sector. In their early forays into Southeast Asia, Australian universities often undercut each other, using negative referencing of rival universities as a shortcut to establishing market share. The government decided that if the reputation of Australian higher education was to have sufficient weight in the longer term to enable Australia to increase its overall market share, competition between universities would have to be modified. It subsidised the co-ordinated promotion of Australian education in East and Southeast Asia, establishing Education Centres in each of the Australian Embassies, and participated in education fairs in which negative referencing was strictly eliminated. These strategies were successful. The learned capacity of Australian institutions to move adroitly between collaboration and competition was no doubt one of the conditions that enabled Australia to double its share of the global market in the 1990s.

Foundations of Australian exports

From the 1950s to the 1970s, Australian institutions were active in the Colombo Plan, especially the University of New South Wales and Monash University which later played a large part on the export market. In addition to the official scholarships there were places for private international students, partly subsidised by Australia, and in 1980 there were 8 800 foreign students (Throsby, 1999, p. 12). Australia made a full policy transition from an aid-based international education programme to a trade-based programme in 1988. Over the next 15 years, public funding of the Australian public universities – the dominant sector which enrolls 98% of students – was constrained and they had strong incentives to expand international marketing. Institutions were unable to charge direct fees to more than a few undergraduates. International education, and to a lesser extent domestic postgraduate coursework programmes, were the main source of discretionary revenues. The government initially specified fee levels that would fully cover costs and prohibited subsidisation of fee-based places (New Zealand did the same). It removed limitations on the number of fee-based international enrolments and phased out most of the subsidised aid-based places. These moves put international education on a fully commercial basis and created an open-ended source of autonomous revenue in what had been a regulated and publicly funded system. Once the new market was established, fee levels were deregulated, leaving universities free to set fees and subject to market forces.

From the beginning, the government wanted all public universities to become competent in the international market. Early marketing was conducted with government assistance in Southeast Asian capital cities. Fee-for-service marketing in the Asia-Pacific region emerged at the same time as government policies that refashioned Australian higher education as a competitive market. Universities underwent an organisational and cultural transformation and developed business-like operations and a greater sophistication in managing commercial services. The new model of institution has been dubbed the “Enterprise University” (Marginson, 2000; Marginson and Considine, 2000).

In the early years, the Australian government also co-ordinated immigration/visa policies with education policies. In the 1990s, however, because of students overstaying on student visas, visa allocations were tightened for several countries, including mainland China. Tensions between immigration and education policies have been much discussed between universities and government, and the government has continued to promote the export market. In 2003 it allocated resources to promote Australian education in emerging markets and loans to encourage Australian students to enter foreign universities for part of their courses. These initiatives were funded by higher visa charges. A number of projects relating to quality assurance were also announced.

In certain institutions, international education has become so large that departments, and in some cases corporate entities run as businesses, specialise in a range of functions including international marketing, student enrolment and administrative support, English-language preparation, reception and orientation services, non-academic counselling on accommodation, health services and immigration requirements, and so on (McBurnie, 2000).

New Zealand provides another example of an integrated, government-led strategy for promoting education exports. In late 2002, the Ministry of Education proposed an Export Education Development Fund and a related export development programme, to be supported through an Export Education Levy of 0.5% of gross tuition income from international students (New Zealand, 2002b). The programme draws together institutions

and a range of government agencies, including the Ministry of Education, the Ministry of Foreign Affairs and Trade, the New Zealand Immigration Service, the New Zealand Qualifications Authority, and Trade New Zealand. While acknowledging that institutions must compete to attract international students, the strategy aims to encourage co-operation and co-ordination in promotion and communication, industry capability building, quality assurance and research. The Ministry of Education sets out a three-year plan for brand development, marketing and promotion of New Zealand education internationally. Components include publications, an enhanced Web site, local and foreign media liaison, an International Education Visits Fund (IEVF, established in 2001) for short visits by educators and policy makers to their overseas counterparts, with reports to be published on the Web and a programme of professional development for staff to better equip them for dealing with international students. A related research programme addresses the national economic impact of export education, international student satisfaction, industry statistics and interactions between international students, their institution and the local community. IDP Education Australia runs an equivalent research programme.

Malaysia and Singapore

Malaysia and Singapore aim to be hub providers of education in the region. In 2001 Malaysia spent USD 585.5 million on education imports (3.5% of all services) and received USD 65.3 million in export revenues (0.5%) (OECD statistics on trade in services) and hopes to correct this imbalance. With public institutions largely funded by government, most of the growth in foreign students is in the private college and university sector. The private sector, including foreign providers, comprises about 600 institutions.¹⁰ The Ministry of Education approves start-ups and enforces regulation, and the National Accreditation Board (LAN) handles accreditation, approval and quality audit. Teaching at the institutions is not subsidised and depends on fees, but domestic students have access to low-interest loans. The medium of instruction is English. Foreign students are mostly from China and Indonesia. The ministry has appointed the Malaysian Education Service to promote Malaysian education in Indonesia, providing data on institutions and courses, liaison with schools, individual counselling, recruitment and placement services (AEI, 2003).

Singapore's education institutions also draw students from the region, notably from Malaysia and Indonesia. Fee-based courses in higher and vocational education are actively promoted. The National University of Singapore offers 40 scholarships a year to students from ASEAN countries; and the Department of Education provides ASEAN 2000 scholarships covering tuition fees and living expenses for two years of study for the Singapore-Cambridge General Certificate of Education (Ordinary Programme), followed by two years study at the advanced level. In vocational education Singapore offers job placement programmes: for example tourism and hospitality students from Indonesia must complete work placement as part of their three-year diploma programme. These work placement programmes are provided with the co-operation of hotels in Singapore (AEI, 2003).

4.4. Key developments

4.4.1. Student exchange

The pattern of student movement between Asia-Pacific countries is different from that in western Europe. Cross-country movement is mainly for acquiring a full degree on a

fee-paying basis (see Section 4.4.2). This is distinct from shorter student exchanges as part of a domestic degree, whereby two or more institutions arrange for students to carry out part of their studies, usually a semester or a year, at a partner institution. In this case there is normally no transfer of fees between institutions and any tuition charges are received by the home jurisdiction. The trade aspect, consisting of foreign students' contribution to national revenue via transport and living costs, is incidental.¹¹ In the Asia-Pacific region these exchange activities are less well established than in Europe. The drive in many countries to invest privately in a foreign education is not matched by a comparable willingness of governments or families to support supplementary international experience as part of the domestic degree. This is not necessarily an either/or question: most regional governments are committed in principle to the expansion of both forms of internationalisation.

Data on this non-commercial form of student mobility are collected – or in many instances not collected – under the auspices of the University Mobility in Asia and the Pacific (UMAP) programme. Aggregate data for UMAP countries are not currently available. Data are patchy compared with the detailed information kept on fee-paying student mobility. Australia keeps the most detailed information (Table 4.14).

Australia receives more exchange students than it sends. There is balance with Thailand, Japan and Canada but the volume of American and Korean students entering Australia exceeds the reverse flow. More Australians go to China and Indonesia than vice versa, perhaps reflecting those countries' lack of support for student exchange and/or their role in the fee-paying market. As these data suggest, Australia lacks a tradition of international study periods. Students are more inclined to go on vacation during or after their degrees than to study abroad. Official reports and speeches and statements by academics express concern about low mobility. Barriers identified by students include lack of information, difficulties with course compatibility and cost (Davis et al., 1999). A new income-contingent loan scheme is being established to assist Australian university students to study abroad. Overseas Fee HELP (OS-HELP) will offer full-time undergraduate students in Commonwealth supported places at public higher education institutions loans of up to AUD 10 000 to finance their overseas study. In 2005, a total of 2 500 OS-HELP loans will be available, increasing to 10 000 loans per year by 2008.

Table 4.14. Exchange students entering and leaving Australia,¹ 1990/2001

Receiver/provider nation	Australian students going abroad			Foreign students entering Australia		
	since 1990	in 2000	in 2001	since 1990	in 2000	in 2001
Canada	2 113	395	492	2 216	371	457
China	444	36	40	63	4	17
Indonesia	228	37	17	45	6	0
Japan	1 949	242	249	1 897	277	312
Korea	297	40	27	476	69	76
Thailand	336	39	18	254	32	83
United States	4 436	654	653	6 509	998	1 038
Other countries	4 715	1 004	1 145	8 445	1 582	2 161
Total	1 792	2 447	2 641	1 698	3 339	4 144

1. Institutions surveyed only. Includes movements to and from countries outside the Asia-Pacific.

Source: AVCC (2002).

Subsidised student exchange is important in the Asia-Pacific region because it can partly compensate for the dominance of English language provider countries in fee-paying education and enable a more reciprocal international exchange. The region is adapting European models to facilitate student mobility. Schemes include UMAP, based on ERASMUS, and the UMAP credit transfer scheme (UCTS) modelled on the European ECTS. There is great scope for expansion of this aspect of international education, but it needs broad-based commitment in a critical mass of countries.

4.4.2. Consumption abroad: foreign students

Many factors affect the choice of foreign education, or, in the parlance of the General Agreement on Trade in Services (GATS), “consumption abroad”. Push factors include national economic development and educational capacity and costs. Pull factors include the opportunities provided by globalisation and globally mobile labour, the prestige of foreign degrees and the potential for migration to the host country (see Section 4.1 and Section 4.2.1). Other factors include the availability of home or host country subsidies for foreign education, visa requirements of host countries, foreign currency requirements, the costs of travel, health care and children’s schooling in the host country and access to work there. Where full fees are charged and students/families cover living costs, employment opportunities are often crucial. Work may also be sought as part of the international experience.

On the pull side, consumption abroad may be affected by quotas on the total number of foreign students and/or THE number from a particular country or in institutions or courses. Quota restrictions are more common in countries that provide subsidised education than IN those charging fees. Access to the host country system and to some courses may also be affected by the extent of recognition of prior qualifications and perhaps the capacity to transfer credit for prior studies. There are also requirements as to demonstrable competence in the language of instruction, mostly English. Research on decision making by students and families confirms that motives are complex. The benefits lie not only in the educational programme and the internationally portable qualification but also in the immersion in an English-language or Western culture.

Table 4.15. Reasons for choosing to study abroad, survey of 1 000 students from ten Asian countries

Reasons for studying abroad	Proportion of Asian students naming this reason (%)
Foreign education of better quality	28
Desire to broaden experience	26
Desire to live overseas	23
Foreign education more highly respected	17
Family wanted student to study abroad	14
Course not offered/difficult to enter locally	14
Desire to improve English skills	10

Note: The figures do not total to 100%: students could provide multiple responses for some questions and not all students responded to all questions.

Source: EduWorld (2001).

As a report to the Asia-Pacific Economic Cooperation (APEC) Group on Services notes: “an important feature of consumption abroad is the experience of living in another country. The depth of that experience can be affected by various impediments, such as rules on working in the host economy. The importance of this ‘experiential learning’ is often overlooked but may

help to explain the dominance of consumption abroad in terms of the modes of supply of education services. For many foreign students, the time spent experiencing a different culture is an important part of acquiring an educational qualification" (APEC, 2000, p. 28).

EduWorld (2001) analysed responses from over 1 000 undergraduate internationals in the United Kingdom, the United States and Australia who come from the ten major Asian sources: China; Hong Kong; China; India; Indonesia; Japan; Malaysia; Singapore; Korea; Chinese Taipei and Thailand (Table 4.15). In considering where to study, the key choice factors were country (54%), course (18%), institution (17%) and city (10%). Three-quarters of the students had friends or relatives in the country of study. International study was financed by the family in 82% of cases, followed by student self-financing (8%) and government scholarships (4%).¹²

In their study of Chinese students from eight cities in China studying abroad, Mazzarol *et al.* (2001) find that ease of obtaining information about the host country and courses is the primary determinant of the location of study. This is followed in importance by the social and cultural environment including safety, crime and tolerance; climate; the quality of education and portability of qualifications; and the availability of part-time work. Other factors include the presence of an established population of foreign students, government guarantees of quality, the cost of travel to and from the country, and prior family experiences. The students separated English-language countries into two tiers. The first tier, the United States and the United Kingdom, was associated with institutions of high reputation. Australia, Canada and New Zealand constituted the second tier, providing attractive environments and a cheaper English-language education. Australia also benefited from geographic proximity to Asia. Selection of the United States, especially at postgraduate level, was strongly affected by reputation despite perceptions that the environment was not fully safe. There was a widespread assumption that a US education was the optimum choice.

Family and finance

In research on choice-making among Thai students studying in Australia, Pimpa (2003) found that family members often strongly influence decisions about studying abroad. The normal sequence of choice was decision to go abroad, country, city, academic programme and university. Choice of programme was seen as the most important. Family influence was greatest in relation to the decision to go abroad, country and city. The influence of information from family members as well as financial factors was greatest for young students (see box below).

Table 4.16. Comparative cost of foreign study in the English language countries, master of business, 2001

	Visa charge	Annual tuition fees (median)	Annual living costs (average)	Total annual costs (median)
		\$US	\$US	\$US
United States (private)	45	24 810	8 529	33 339
United States (public)	45	10 898	8 529	19 427
United Kingdom	48	10 376	8 783	19 159
Canada	81	5 944	6 906	12 850
Australia	156	7 055	5 427	12 482
New Zealand	45	6 209	5 503	11 712

Note: Total annual costs exclude visa charge. Exchange rates as at 1 June 2001 used for conversion to USD.¹³

Source: IDP (2001).

In a study of the comparative costs of higher education courses in the English-speaking countries IDP Education Australia found tuition fees were lowest in New Zealand and Canada and highest in US private universities and the United Kingdom. The average cost of living was lowest in New Zealand, followed by Australia; it was highest in the United Kingdom and the United States (Table 4.16). Total costs were also affected by the length of courses. In the case of the master of business, the median is two years in the United States, 1.5 years in Australia and Canada and one year in the United Kingdom and New Zealand. Thus total costs were considerably cheaper in New Zealand than elsewhere.¹⁴

Investing in real estate to invest in education

The decision to undertake international education is often a family affair. Education can entail significant commitment – and sacrifice – for two or three generations: parents, grandparents and student may all contribute to costs. Australian university personnel at international education marketing exhibitions in Asia are often asked about the costs of housing, and real estate companies sometimes exhibit in the foyer. One practice of the more affluent is for the family to purchase a house or unit in the city convenient to where their (sometimes several) children will study. This saves expenditure on rent, and the effort of finding accommodation anew for each student. Those who are close in age can reside together and the family can more closely care for them while they are abroad. Often this additional investment in consumption abroad is cost-effective. As property values rise relatively steadily in many Australian cities, the house can then be sold at a profit when the studies are completed. This can significantly offset the cost of tuition fees, if not pay for them altogether.

Source: Anecdotal evidence from interviews with families conducted by staff from Monash University, Australia.

Table 4.17. Growth of international student enrolments in Australia, 1994-2001

Sector of education	International enrolments, 1994	International enrolments, 2001	Change from 1994 to 2001 %
Higher education (public)	43 721	124 734	+185.3
Higher education (private)	--	4 532	--
Vocational education (public & private) ¹		39 845	+104.6
English language colleges (private)	26 173	49 380	+88.7
Schools (public & private)	12 780	15 112	+18.2
Total all sectors ²	102 153	233 408	+128.5

Note: These data refer to enrolments, not students, and are not strictly comparable to data in previous tables. A minority of students, principally in vocational education and English language colleges enrol in more than one programme per year.

1. Non-degree courses

2. Excludes a small number of private higher education enrolments in 1994.

-- Data not available.

Source: Australian Education International (AEI) (2003).

The IDP study identified pronounced variations in health cover costs and work arrangements. In the United Kingdom, health cover is free for international students enrolled in courses of more than six months' duration, and free public health cover is also provided in

parts of Canada. In the United States, Australia and New Zealand students must take out private health cover. The United Kingdom has the highest cost of living of all five countries but the most generous regime for student work: no special permissions are required. Students in the United States and Canada cannot work off campus without government permission. In Australia international students may work up to 20 hours a week in study periods and full time in break periods provided they obtain a student visa with work rights. In New Zealand students may work up to 15 hours a week and full time in the summer break.

Foreign students in Australia

Between 1994 and 2001 in Australia, the number of international students enrolled in public higher education almost tripled, from 43 721 to 124 734, an average annual growth rate of more than 15%. Growth persisted during the Asian financial crisis of 1997-98 (Table 4.17).¹⁵ The price of the Australian dollar was low relative to the US dollar and sterling so that through most of the period total Australian costs were one-third lower than costs in the United Kingdom and American public universities (Table 4.16). International student enrolments in non-degree tertiary courses, English language colleges and secondary schooling in Australia have fluctuated more than university enrolments, but numbers in all sectors have grown significantly overall (Table 4.18). In 2001 4 337 foreign students were enrolled in the small private higher education sector.

In higher education the fastest growing mode is enrolment in the importing nations, with Australian degree courses provided by local partner organisations or by Australian branch campuses, and distance education is now mostly online. In 2001, there were 86 269 foreign enrolments in Australia and 42 802 offshore, the latter having grown by 22.6% since 2000 and five times since 1994 (see Sections 4.4.3 and 4.4.4). The main sites of Australian offshore enrolment in 2001 were Singapore (13 112), Hong Kong, China (12 426), Malaysia (8 211) and China (2 563, up from 1 009 in 2000).

Table 4.18. Australian educational exports: number of international student enrolments by sector of education and national origin, 2001

	Higher education	Non-degree vocational education	English language colleges	Schooling	Total all sectors
China	9 098	2 542	10 902	4 282	26 824
Hong Kong SAR	19 479	2 274	1 795	1 054	24 602
Singapore	21 964	761	8	431	23 164
Malaysia	17 972	1 413	202	644	20 231
Indonesia	10 484	4 638	1 868	1 629	18 619
Korea (South)	2 714	4 005	9 336	1 996	18 051
Japan	2 351	3 087	6 276	1 142	12 856
Thailand	3 629	2 164	4 742	590	11 125
India	6 188	4 128	32	68	10 416
Taiwan	3 106	861	2 599	625	7 191
United States	4 076	553	10	131	4 770
Vietnam	1 690	779	794	231	3 494
Brazil	218	809	1 842	380	3 249
Czech and Slovak Republics	112	1 351	1 773	6	3 242
Norway	2 892	72	21	6	2 991
All other countries	23 100	10 406	7 180	1 897	42 583
Total	129 073	39 843	49 380	15 112	233 408

Source: AEI (2003).

Table 4.18 shows that the largest importers from Australia are China; Hong Kong, China; Singapore; Malaysia; Indonesia; Korea; Japan; Thailand and India. In higher education Singapore; Hong Kong, China; Malaysia and Indonesia lead; in non-degree vocational education, the leaders are Indonesia, India, Korea and Japan; in English language colleges, China, Korea, Japan and Thailand are most prominent; in schools, China, Korea and Indonesia lead. Despite the dominance of the Asia-Pacific region, Australian institutions recruit on all continents. In 2001 there was more than 20% growth in students from Bangladesh, Cambodia, the Philippines, Jordan, Lebanon, Turkey, United Arab Emirates, Botswana, Kenya, Mauritius, South Africa, Zimbabwe, Canada, Colombia, Mexico, Venezuela, Hungary, Italy, Poland, Russia, Spain, Denmark, France, Germany, Ireland, Sweden, the United Kingdom and Fiji (AEI, 2003).¹⁶

Australia's capacity for international education is enhanced by the high proportion (23.6% in 2000) of foreign-born among its citizens (OECD, 2002c), more than double the level in the United States and a very different situation from Japan (1.3%) and Korea (0.4%). In Sydney and Melbourne, almost 10% are Asian-born. This provides a relatively cosmopolitan urban environment for the students from Chinese families who make up most of Australia's foreign enrolment. At the same time, Australia mostly provides traditional Anglo-Australian curricula and pedagogy and the official language is English. Concerns are expressed that courses lack sensitivity to cross-cultural variations and there is insufficient mixing between international and local student populations. A study by Smart et al. (2000) found that international students exhibit a greater desire to mix with locals than vice versa. International students are more likely to see cultural differences as an inhibiting factor, while many local students state that international students are unwilling to mix and fail to "adjust".

Table 4.19. Foreign student enrolments by level and field of study

	Proportion of foreign students in research degrees %	Index of concentration of foreign students relative to local students ¹				
		Humanities, arts	Business, law, social science	Science (inc. ICTs)	Engineering, manufacturing construction	Agriculture
Australia	5.4	0.53	1.54	1.04	1.22	0.58
New Zealand	2.7	0.57	1.72	0.92	1.07	1.02
Japan	--	1.17	0.87	0.68	0.89	1.43
Korea	13.2	--	--	--	--	--

1. 1.00 means that the same proportion of foreign students enrol in the field of study, as local students. A higher index indicates that foreign students are relatively highly concentrated in that field.

-- Data not available.

Source: OECD education database.

As noted above, Australia's international student profile is concentrated in certain fields of study (Table 4.19). The most popular higher education courses in 2000 were business, administration and economics (49.8%); science, mostly computing/ICT (15.0%); arts/humanities (10.3%); and engineering/surveying (7.7%). Popular non-degree vocational fields were business, administration, economics (58.0%); science, mostly computing (21.4%); and arts and humanities (7.8%). The most rapid growth is in coursework master's and graduate diploma programmes; enrolments in research programmes are low.

All of Australia's 38 public universities enrol onshore international students, though numbers vary. The largest international populations in 2000 were at RMIT University in Melbourne (9 035, or 29.2% of the student body), Monash University (8 852, or 21.3%), the University of New South Wales (6 491, or 20.6%), Charles Sturt University (5 223, or 18.7%) and the University of Melbourne (4 902, or 14.7%).¹⁷ The main concentrations were in Melbourne in Victoria and Perth in Western Australia. RMIT derived 23.2% of its total revenue from international education (DEST, 2003), a high level of exposure in this dynamic market. A study by Bohm *et al.* (2002) for IDP Australia estimates that between 2000 and 2025 world demand for higher education in Australia will increase eight-fold, with almost two-thirds generated by four countries: China (21%), Malaysia (14%), India (14%) and Indonesia (11%). The share of enrolments from Singapore and Hong Kong, China is expected to diminish. Such expansion would lift foreign students to half of the total student body and would necessitate greater investments in onshore bridging programmes, English-language assistance and changes to curricula. However, realisation of this forecast depends on a host of factors, including Australia's price vis-à-vis the United States and the United Kingdom and its visa policy on China.

Foreign students in New Zealand

New Zealand's course profile is similar to Australia's, with a concentration in business and a lower ratio of research students (2.7%) (Table 4.19). In 2001 the largest groups of foreign university students were at the University of Auckland (2 225), the University of Waikato (2 041), Auckland University of Technology (1 773), and Massey University (1 687).¹⁸ In 2001-02 the largest providers were China, India and the United Kingdom (New Zealand, 2002). In the polytechnic sector, there were 2 568 foreign students at the UNITEC Institute of Technology and 1 138 at Manukau Institute of Technology. There were 6 397 foreign students in private tertiary institutions, including 2 449 from China (New Zealand, 2002). The New Zealand government declares that "international students are easily absorbed into the increasingly cosmopolitan society of New Zealand, which now boasts 6.6% of the population being of Chinese origin or descent".

Foreign students in Malaysia

Malaysia wants to strengthen its expertise in English-language instruction to compete effectively with the Anglophone countries. Because tuition is lower than in Australia and New Zealand, it has genuine prospects of doing so, although there are concerns that some foreign students are using short stays in Malaysia as a bridge to the English-language countries. Between 2000 and 2001 the number of foreign students rose from 3 508 to 18 892 (OECD education database), mostly in private colleges and universities. In 2003 there were 900 foreign students (3% of total students) at the University of Malaya, the most internationalised public university. The university wants to raise this to 10%. However, Malaysian private colleges and universities will probably remain the main site for growth in international education.

Foreign students in Japan

According to the Japanese government, in May 2000 there were 64 011 foreign students in Japan, with 90% from Asia (57 938), followed by Europe (2 220) and North America (1 241). One in seven was funded by Japanese government scholarships. The main sources were China (32 297), Korea (12 851), Chinese Taipei (4 189), Malaysia (1 856), Indonesia (1 348) and

Thailand (1 245). There were 27 795 foreign students at undergraduate level in universities, and 23 580 at graduate school, with the remainder spread across colleges and university preparation courses. While 40.5% of the foreigners were enrolled in science and technology courses, 58.4% of scholarships were awarded in these fields (MEXT, 2001). In Japan the primary objective of international education is not to provide courses for fee-paying foreigners but to fulfil objectives related to foreign policy and the internationalisation of education: to balance the outflow of Japanese students to the United States and other countries; to increase the diversity of students studying in Japan; to provide foreign aid to developing countries in Asia; and to use English-medium teaching for foreigners to augment the English skills and international awareness of local universities, staff and students who share classes with foreigners. This last objective may work against foreign students' own aims as they may wish to acquire Japanese language and culture (Hashimoto, 2003).

Korean students abroad

Departure figures show that 187 470 Koreans studied abroad in 2000, with 34.2% in Japan, 33.9% in the United States, 10.0% in Canada, 6.6% in Australia, 6.5% in the United Kingdom and 2.2% in New Zealand. There has been rapid growth in Canada's short English-language courses which operate as a gateway to education in the United States. Though international education is present in Korean culture, it is officially tolerated rather than encouraged, as study abroad puts pressures on local institutions that need enrolments and drains foreign balances.¹⁹

4.4.3. Programme and institution mobility (PIM)

Cross-border education is traditionally associated with internationally mobile students. However, internationally mobile programmes and institutions are an important and growing phenomenon. This is widely referred to as "transnational education" (TNE) and in GATS trade parlance as mode 3, "commercial presence". Here the term "programme and institution mobility" (PIM) is used. PIM provides opportunities for students to earn a foreign degree while remaining at home, creates new forms of partnership and delivery, and is of major importance for student enrolments. When PIM courses are taken into account, the number of international students from Asia-Pacific region enrolled in foreign institution may be half greater than the number of mobile students.

Several kinds of delivery fall under the heading of PIM:

- In *locally supported distance education* students use foreign curriculum material designed for independent study, augmented by local facilities and teaching provided by the foreign provider institution and/or by the host-country partner.
- *Twinning programmes* are fully taught on the basis of a foreign syllabus and timetable. Students carry out part of the course in the home country and complete it at the home base of the foreign institution. Throughout, students are formally enrolled with the foreign provider.
- Under a *franchise arrangement* a local provider is licensed to offer a foreign degree under stipulated conditions. The nature and quality of the programme depends on those conditions.
- *Branch campuses* provide classes, laboratories, offices and library. These are bricks-and-mortar facilities offering complete degrees in fully taught programmes operated by a foreign provider as a wholly-owned or joint venture (McBurnie and Pollock, 1998).

These terms are often used interchangeably; definitions overlap and new terms appear in response to local conditions and new initiatives. Franchise and twinning arrangements are often referred to as branch campuses, a term which has greater status in the international education marketplace.

PIM is creating a new picture of education in the region, which sometimes resembles an education supermarket. Education centres in shopping malls display a smorgasbord of foreign university crests in their front windows. They range from modestly funded small businesses to those financed by industry with money seeming no object; from basic “chalk and talk” facilities to state-of-the-art ICT and audiovisual learning technology superior to the equipment at the home campus of the foreign provider. In other cases PIM takes the more familiar form of fully equipped campuses of foreign universities such as Nottingham, Curtin and Monash in Malaysia; or is blended with local public universities as in the case of foreign partnerships with universities in Hong Kong, China. Most PIM exporters, chiefly from the United Kingdom and Australia, are traditional public universities or colleges in their home jurisdiction but are designated as private providers in the host jurisdiction.

Based upon a survey of providers, IDP describes the Australian PIM as postgraduate (56%); in business, administration and economics (51%); located in Hong Kong, China; Malaysia or Singapore (72%); and with a mean enrolment of 40 students, 54% of whom are enrolled in full-time study.²⁰ The chief delivery modes are face-to-face teaching (40%) and supported distance education (40%). The Australian universities are chiefly partnered with private institutions or providers (51%) or public education institutions (25%). Typically, the Australian university is responsible for academic matters, including curriculum, assessment and quality assurance; the partner provides physical facilities, administration and market promotion. Teaching services are provided either predominantly by the local partner or by both parties (Davis et al., 2000, pp. 36-37 and pp. 130-131). In all cases, the Australian university owned the intellectual property in the course.

The extent of PIM

It is not easy to gauge the extent of PIM because it tends to fall outside the government data-gathering systems in both the exporter and the importer nations, which tend to focus on domestic programmes. However, some data are provided by the main exporting nations and by certain host countries. In 2002 Australian PIM degree programmes enrolled 45 030 students, chiefly in Asia, out of 157 296 international students (www.idp.com). Between 1996 and 2001 Australian PIM enrolments rose from 24% to 37% of all international enrolments. IDP has forecast 83 000 Australian PIM enrolments by 2010 and a massive 300 000 by 2025, or 47% of all international enrolments (Bohm et al., 2002), although such forecasts should be treated with caution. In 1996-97 British institutions enrolled about 140 000 PIM students and about 200 000 international students in the United Kingdom itself (OECD, 2002f, p. 104).

International branch campuses

The international branch campus is a small but growing element of cross-border mobility. In contrast with the traditional American understanding of the term, the Observatory on Borderless Higher Education based in the United Kingdom notes that the “new model of the international branch campus is concerned primarily with local recruitment rather than international experience for domestic students”. The Observatory lists 23 existing or planned examples. Ten are Australian: four in Malaysia, two in Vietnam

and one in South Africa, Thailand, Fiji and the United Arab Emirates. Seven are from the United States: two in Greece, two in Cyprus, and one in China, Thailand and Qatar. UK institutions have three campuses: two in Malaysia and one in South Africa. There is one French campus in Singapore. Foreign branch campuses are also planned by institutions in India and Singapore, mainly in Asia. The Observatory acknowledges that its report is a work in progress and there are “blurred lines between what a campus is and what is something more modest”. The list is already out of date in some respects (OBHE UK, 2002, pp. 1-2).

For those attracted to the traditional on-campus student experience, the branch campus is more likely to replicate this than a franchise or distance education programme. Arguably, universities can exert greater quality control over branch campuses than over franchise programmes. The commitment demonstrated by the solid presence of a local campus has spin-off benefits for foreign institutions, such as an edge in bidding for local government projects and better links with industry. There is greater potential for conducting research and for community service, as well as teaching. At the same time, the investment in land, capital assets and other physical resources is costly and exposes the exporting institution to much greater financial risk than franchise arrangements, where the local partner provides the infrastructure.

PIM activity in the countries of the region

In Hong Kong, China in 2001, about 600 foreign awards were offered through public universities, private institutions and distance education centres. UK institutions accounted for half, Australian providers one-third, and the United States and others the rest. Most of the local public universities offer English-language foreign programmes via self-funded corporate arms that provide fee-based continuing education and professional development. In 1999 the University of Hong Kong’s School of Professional and Continuing Education (SPACE) taught a student load nearly equivalent in size to that of the parent institution (Young and Cribbin, 1999; McBurnie, 2002a). In 2001 150 overseas education institutions and 40 overseas professional bodies offered 645 courses in Hong Kong, China alone or with local partners (Olsen, 2002, p. 5).

In addition to its local universities, the Singapore system includes private post-secondary providers, with courses usually provided in partnership with, or validated by, foreign institutions. Since 1997, Singapore has collected statistics on students in and graduates from these “external” private diploma and degree programmes. More than half are enrolled in programmes accredited by UK institutions and 40% by Australian institutions. Student numbers have risen sharply, both in absolute terms and as a share of all Singapore students. From 1997 to 2000 the number of bachelor-level enrolments in these external programmes rose from 13 990 to 21 010 (50.2%), while such enrolments in the public system increased from 31 730 to 37 650 (18.7%). In 1997 there were 30 external bachelor graduates for every 100 from the public system; in 2000 the ratio was 57:100. In postgraduate enrolments in 2000, there were 2 330 externals and 3 680 locals, 63:100. Clearly, PIM education has a major function in the Singapore knowledge economy. The same data show that external PIM enrolments were heavily concentrated in business and management: 68.2% of all external bachelor enrolments and 90% of external postgraduate enrolments. Other fields were ICT with 19% of enrolments at bachelor level, humanities and social sciences, and health sciences (Singapore, Department of Statistics, 2000, 2001).

Box 4.1. Malaysia's International Medical University

The International Medical University (IMU) in Kuala Lumpur provides a notable example of successful university development through internationalisation. The IMU is a fully fledged private and commercial university whose specific mission, as a part of Malaysian medical education, is to provide internationally linked degrees in medicine and pharmacy. The IMU was established in 1992 in consultation and partnership with five foreign medical schools. It is now fully accredited by the Malaysian government for undergraduate programmes and is in the process of establishing research degrees, including a medical research PhD. The IMU generates an annual profit, while conducting a comprehensive programme of medical research. It is underwritten by the group of 24 leading foreign university schools that are its twinning partners. The medical degree is provided in two forms. All students complete the first 2.5 years at the main IMU campus in Kuala Lumpur. Subsequently they have the choice of completing their education in Malaysian hospital facilities or entering one of the medical faculties of IMU's 24 international partner universities in the United Kingdom, Ireland, Australia, New Zealand, Canada and the United States. The Australian schools include Melbourne, Sydney, Newcastle and Queensland; the British schools include Edinburgh, Glasgow, Manchester and Liverpool. The one American partner is Jefferson Medical College. The deans of the IMU's partner medical schools meet in Malaysia once a year to assess the quality of the curriculum and the programmes and to share perspectives on medical education across national borders, a process fruitful for all concerned, as several partners testify. Pharmacy students enrolled at IMU enter the Strathclyde University (United Kingdom) pharmacy programme at the end of 2.5 years of study in Malaysia and spend the last three semesters in the United Kingdom.

As noted, Malaysia has significantly expanded its national education capacity through private providers, including foreign provision via PIM. The Malaysian higher education system consisted in 2001 of 14 local public universities, an International Islamic University funded by several countries, ten private universities including the International Medical University (see Box 4.1), four foreign university branch campuses and over 600 private colleges offering both local and foreign qualifications. From the late 1990s, Malaysia encouraged foreign universities to establish branch campuses, declaring this would assist national industrialisation. The move was seen as urgent, but it was emphasised that "only the best will receive approval" (Razak, quoted in Banks and McBurnie, 1999). In all cases, the foreign university works in partnership with a local provider, not only to maximise the transfer of expertise but also to facilitate regulation by the Malaysian government.

For several years, China has progressively opened its doors to co-operation between local and foreign providers in the delivery of programmes. The Ministry of Education has reported that from 1995 to 2003 these programmes increased nine-fold. In early 2003, there were 712 such programmes. Of these, 261 are post-secondary and higher education degree programmes, 313 are non-degree programmes, and the remaining 138 are pre-tertiary. The main fields were masters of business (36%), ICT (13%), economics (10%) and foreign language (9%). The major partner countries were the United States (154 co-operative arrangements), Australia (146), Canada (74), Japan (58), Hong Kong, China (56), Singapore (46), England (United Kingdom) (40), Chinese Taipei (31), France (24), Germany (14), and Korea (12). Although these courses have been allowed to proliferate, the Chinese authorities have kept open the option of future regulation. Only ten partnerships for the

delivery of degrees have been fully approved by the central government (*China Youth Daily*, 2003).

In Korea the Ministry of Education indicates that it will permit foreign institutions to establish campuses in Korea but there have been no approvals as yet. As noted in Section 4.3.3, high costs have inhibited foreign universities. The ministry has more actively encouraged foreign language institutes by removing restrictions on fees. Both the British Council and the Canadian CEC operate successful and profitable language-teaching centres in Korea.

4.4.4. Distance education/online PIM

Online distance education has been the subject of much speculation and commercial positioning in relation to the Asia-Pacific region. In the last half decade, many English-speaking universities, particularly in Australia and Canada, have developed distance-based courses delivered partly or solely over the Internet. The United States is home to a large commercial online education sector. In the United Kingdom, the Open University is positioning itself as a potential global provider. The Open University, which starts from a reputation for high quality distance education, is creating ICT materials for UK universities via its commercial vehicle, the Open Learning Company. There are also a small number of completely virtual universities. For global providers and Asia-Pacific governments, the question is whether this emerging supply potential is complemented by demand. It is often suggested that the increasing levels of unmet demand in China, Thailand and Vietnam, all of which will be insufficiently provided with “bricks and mortar” for the foreseeable future, constitutes a vast business opportunity for online distance education. There are many company start-ups, and potential demand is subject to continuous market research, though few data are in the public domain (Olsen, 2002). For national governments in much of the Asia-Pacific region, whose objectives are primarily policy rather than commercial, online cross-border provision offers to absorb some of the demand for foreign education with less capital outflow and less potential brain drain.

There are questions about the extent to which online programmes from international providers can replace or complement face-to-face domestic education or replace or complement face-to-face education provided by international providers either as PIM or in the exporter nation. A prototype has yet to emerge that unambiguously has high and increasing appeal to students and their families. While online communications and data retrieval have obvious pedagogical potential as a complement to face-to-face programmes, new ways of teaching and learning that more fully explore the technical possibilities have yet to emerge. It may be that “pure” online education is better understood as a distinctively new product, suitable for certain kinds of students, rather than as a universal substitute for what exists. While the unmet demand for higher education in the Asia-Pacific region is largely for undergraduate education, online education so far works best for students in postgraduate and continuing education programmes, especially for those working full-time for whom screen-based delivery and rapid non-synchronous communications provide welcome flexibility.

Another issue is the cultural content of online programmes. The Asia-Pacific region has large pools of languages that will not disappear (Table 4.2). The great majority of online programmes are in English and are mostly from American sites and often communicate American assumptions and examples. For many students this is part of the appeal. Others may prefer courses more culturally and linguistically diverse, and perhaps produced closer

to home. Culturally flexible cross-border courses are a challenge yet to be met. It is likely that in the longer term the specific cultural requirements for online education will vary from country to country, region to region, across student demographics and fields of study. Cross-border and cross-cultural partnerships will be crucial to achieving variation and flexibility in content, delivery and pedagogy.

For national governments there is an on-going question of whether the technical and cultural content of online courses fits national needs and values. Most governments that permit on-site foreign universities to operate within their territory regulate them carefully. Nevertheless, there have so far been few regulatory impediments to the growth of cross-border online education in the Asia-Pacific region,²¹ presumably because of the technical difficulties of controlling delivery over the Internet. In the WTO/GATS round, cross-border online education has been the subject of more commitments than other forms of PIM by Asia-Pacific countries.

Costs and technological capacity

It is as yet unclear whether on-line education will provide cost advantages for students and governments. A study for UNESCO (Bates, 2001) suggests that online education of adequate quality is no cheaper than face-to-face education in on-site institutions, and that it is more expensive than traditional distance education based on mail and broadcast modes except for units of fewer than 100, where the costs of the two modes equalise.²² Nevertheless, in cross-border delivery, the costs of production (though not of delivery) are carried by the foreign provider. From the point of view of regional governments, this improves the cost equation. However, online programmes depend on broad, affordable distribution of both communication systems and the necessary hardware and software; these capacities are inadequately and unevenly distributed within the Asia-Pacific region. Most of the developing world has poor telecommunications infrastructure, bandwidth, cable linkages and satellite receiver distribution, and insufficient public and private funds to invest in these technologies. Table 4.20 shows that Internet penetration is strongest in the richer East Asian nations. Hong Kong, China; Singapore; Chinese Taipei; Korea and Japan all have more than 400 Internet users per 1 000 population. Australia, New Zealand and Malaysia also have broad networks. The same nations have relatively high levels of computer use, although Malaysia lags behind in this respect. From the policy viewpoint, it is only in these nations at present that online delivery could replace face-to-face delivery on a scale broad enough to enable equitable access. However, while unmet demand is an issue in Malaysia; Hong Kong, China; Singapore and Chinese Taipei, the main pools of unmet demand are located elsewhere.

In China, Thailand, Vietnam and Indonesia, Internet user rates vary from 13 to 57 per 1 000 population. Thailand has the highest rate in this group. China, with a relatively broad telephone network but only 26 Internet users per 1 000, nevertheless constitutes an Internet community of 33.7 million (2001). This is the global prize in the eyes of the commercial companies and universities developing online higher education, many of whom, like Universitas 21 Global, provide course in Mandarin as well as English (see Box 4.2). In Pakistan, India and Bangladesh – despite the human resources and manufacturing capacity of India's ICT industry – the distribution of capacity is still very poor. The distribution of computing is stronger in the small islands of the Pacific, but telecommunications and Internet distribution are poor, despite the crucial need for global linkages in these otherwise isolated communities.

Table 4.20. ICT networking potential, Asia-Pacific countries, 2000-02

		Internet users, 2001/2002	Internet users per 1 000 persons, 2001/2002	Internet rate (monthly off-peak charge), 2001	Main phone lines per 1 000 households, 2001	Personal computers per 1 000 persons, 2001
East Asia						
	2001	33.700	26	7	138	19
Hong Kong, China	2002	4.310	643	18	581	385
Japan	2001	55.900	440	11	586 ²	315
Korea	2001	22.230	470	8	476	251
Taiwan	2001	11.600	518	--	573	223
Southeast Asia						
	2001	0.010	1	104	3	2
Indonesia	2002	4.400	21	12	37	11
Laos	2001	0.010	2	50	9	3
Malaysia	2001	6.500	273	5	199	126
Myanmar	2001	0.010	2	--	6	1
Philippines	2001	2.000	26	24	40	22
Singapore	2002	2.260	551	--	472	508
Thailand	2001	3.500	57	9	94	27
Vietnam	2001	1.000	13	20	38	12
South Asia						
	--	--	--	--	--	--
Bangladesh	2001	0.250	2	17	4	2
Bhutan	2001	0.003	4	--	20	6
India	2001	7.000	7	10	34	6
Maldives	2001	0.010	36	--	101	--
Nepal	2001	0.060	3	16	13	3
Pakistan	2001	0.500	4	13	24	4
Sri Lanka	2001	0.150	8	6	43	8
Pacific						
Australia	2001	7.200	371	13	525	465
Cook Islands	--	--	--	--	--	--
Fiji	2001	0.015	18	--	110 ¹	61
Kiribati	2001	0.002	22	--	40	25
Marshall Islands	2001	0.001	17	--	60	50
Micronesia	2001	0.005	42	--	83	--
Nauru	--	--	--	--	--	--
New Zealand	2001	1.100	289	11	500	360
Papua New Guinea	2001	0.050	9	34	14 ¹	61
Samoa	2001	0.003	17	--	56	7
Solomon Islands	2001	0.002	5	--	16 ¹	48
Tonga	2001	0.003	28	--	99	--
Tuvalu	--	--	--	--	--	--
Vanuatu	2001	0.006	27	--	34	--

1. 2000 data.

2. Data not available.

Source: Asian Development Bank (ADB) (2003); World Bank (2003), www.worldbank.org/data/countrydata/ictglance.htm

Table 4.21 shows that the OECD countries in the Asia-Pacific region have relatively strong capacities in ICT but these capacities vary notably in form. Australia, Japan and Korea are all significant aggregate investors in ICT, reflecting high ICT penetration through industry, government and education. However, Korea (especially) and Japan have a stronger investment in ICT infrastructure than Australia and New Zealand, and are much

stronger exporters of ICT-related goods. In Korea, ICT-producing activities constituted 14.3% of production in the non-agricultural business sector in 2000, the second highest level in the OECD after Finland. Korea was especially strong in ICT manufacturing. Japan at 9.9% was also relatively active in this area.

Table 4.21. ICT industry and capacity in OECD countries, in the Asia-Pacific region and in Anglophone countries

	Investment in ICT % GDP (1999)	Software investment % NRGFCF (2000)	ICT sector exports % exports (2001)	Broadband penetration rates ² (6/2001)	Internet hosts (7/2001)	Web sites (7/2000)	Household Internet Quartile 1 (2001)	Household Internet Quartile 4 (2001)
	%	%	%	per 1 000	per 1 000	per 1 000	per 1 000	per 1 000
Regional OECD								
Australia	4.4	9.7	3.3	0.58	91.1	9.4	580 ¹	90 ¹
	4.8	3.8	24.6	1.08	48.2	1.6	--	--
Korea	4.3	--	31.0	13.78	11.1	6.7	--	--
New Zealand	2.5	--	1.6	0.46	106.2	10.6	717	333
Other Anglophone								
	2.2	9.4	6.0	6.17	183.1	24.7	758	226
United Kingdom	3.4	9.5	20.0	0.27	69.7	24.2	800	110
United States	5.3	14.2	21.4	3.21	275.3	46.5	770 ¹	

1. Data for 2000.

2. Number of DSL (Digital Subscriber Lines), cable modem lines and other broadband per 1000 people

-- Data not available.

per 1 000 = per 1 000 inhabitants or 1 000 households.

NRGFCF = Non-residential Gross Fixed Capital Formation

Source: OECD ICT database accessible at www.oecd.org

Korea and Japan

Boosted by heavy government and private investment in ICT, Korea has one of the highest rates of school Internet access and Internet usage in the world (OECD, 2000, pp. 79-82). These patterns appear to favour the development of commercial online education. The government has also promoted distance courses for ICT professionals, with tuition financed by an education credit-bank system, using satellite broadcasting and the Internet (OECD, 2003). It has also supported the development of 16 sites for cybereducation at various Korean universities. It has encouraged Korean universities, and some private and commercial providers, to enter the market for distance education. There has been some collaboration between Korean and US universities in the provision of online distance courses. But there is little information on the cross-border delivery of post-secondary education in or from Korea.

ICT usage is more stratified in Japan than in Korea. Japanese society combines technology-intensive and highly traditional sectors. The technology-intensive sectors have strengths in key areas for education such as multimedia and high-density video transmission. The Japanese national universities are linked by communications satellites which enable high-quality voice and image interchange, thereby lowering the cost of university collaboration within Japan and facilitating international links. Until recently, satellite linkages were more important than the Internet, but at the end of the 1990s there was a rapid increase in the take-up of e-mail in communications with students and of online teaching and learning. Some Japanese universities provide distance education via the Internet and videoconferencing. In Japan there is more video in distance education and face-

to-face classrooms than in the Anglophone countries. Student take-up of ICT to produce and submit assignments has been slower. The prestigious national universities have been quicker than local public universities and private universities to adopt the new technologies on a large scale (Sakamoto, 2001), thereby reinforcing the Japanese pattern of duality.

Japan and Korea have strong indigenous ICT capacities, akin to those of Scandinavian countries, and this provides favourable conditions for sustaining culturally distinct ICT products. While the export potential of ICT-based education products in Japanese and Korean is limited, there is less dependence on English-language software and content and a lower level of foreign cultural penetration of education, compared to countries such as China where the Internet is a largely English-language medium. This could represent a global asset in the future and enable Japan and Korea to develop online education exports in one or more of the global and regional languages—Mandarin and possibly Hindi, Urdu and Bahasa, which are not catered for by Anglophone producers.

Australia and New Zealand

Although Australia and New Zealand have weaker manufacturing and export capacities in ICT than Japan and Korea, they use significantly ICT in higher education and more than Japan and Korea in cross-border post-secondary education. In the last decade, most Australian universities have developed on-line programmes either in addition to or, more often, mirroring face-to-face programmes (Gallagher, 2001). A minority of Australian universities have set out to put all courses on line, and the University of Southern Queensland, has invested in international e-learning as its primary mode. In the second half of 2001 Australia enrolled 12 887 offshore distance education students – 25% more than 12 months earlier – of which 3 643 in Singapore, 2 093 in Hong Kong, China, 1 590 in Malaysia and 813 in China (IDP, 2002). Nearly all such students receive both Internet-based and postal communications as well as some face-to-face services in learning centres managed by partner organisations of the Australian universities in the metropolitan centre nearest them. A survey of providers by IDP Australia found that only 1% of the programmes were fully given on line (Davis *et al.*, 2000, p. 42). However, Australia's role in purely online distance learning may increase. In 2001 it was announced that the World Bank (with USD 1.3 billion over five years) and the Australian government agency AusAID (with start-up funds of AUD 200 million) would collaborate in a USD 1.5 billion “Virtual Colombo Plan” to develop cross-border distance education for the developing world. The first mandate is to provide and support distance learning programmes for training and upgrading teachers. Universities and other providers bid for contracts to provide programmes to 12 countries in Asia, the Pacific and Africa (Borton, 2001). The Virtual Colombo Plan faces formidable long-term difficulties. It needs viable local partners and sustainable technologies and must tailor technologies and content to local circumstances.

Among Australian attempts to develop an online platform, the most significant is Universitas 21 initiated by the University of Melbourne with partners in Australia; New Zealand; the United States; Canada; Scotland; England; Singapore; Hong Kong, China, China Germany and Sweden (see Box 4.2). Most of the partners are leading universities in their nations. Regardless of whether this consortium leads to the successful global online university its founders have envisaged, Universitas 21 has already generated spin-off benefits in the form of collaborative research programmes, student and staff exchange, international benchmarking and cross-border fertilisation of curricula. There is potential for the development of joint degrees and the mutual alignment of “feeder” programmes.

Box 4.2. The Universitas 21 consortium: the world on-line university-to-be?

Australia: University of Melbourne, University of Queensland, University of New South Wales

New Zealand: University of Auckland

Canada: McGill University, University of British Columbia

United States: University of Virginia

Scotland: University of Edinburgh, University of Glasgow

England: University of Birmingham, University of Nottingham

Singapore: National University of Singapore

Hong Kong, China: University of Hong Kong

China: Fudan University, Peking University

Germany: Albert-Ludwigs-Universität Freiburg

Sweden: Lund University

According to the University of Melbourne, "Universitas 21 is an international network of leading research-intensive universities". Its purpose is to facilitate collaboration and co-operation among them and to create entrepreneurial opportunities on a scale that none could achieve independently or through traditional bilateral alliances. Established in 1997, Universitas 21 currently has 17 member universities in ten countries. Collectively its members enrol 500 000 students, employ 40 000 academics and researchers and have 2 million alumni (www.universitas21.com/). The universities do not operate as a single unit for research, teaching and programme development except as a platform for global online delivery. While the universities in the consortium have a *prima facie* commitment to collaboration and joint ventures, each also maintains links with a broad range of other partners. For the most part, collaboration within the Universitas group is normally negotiated on a bilateral basis. In 2001 Universitas 21 signed a contract with the British educational publisher Thomson Learning, which led to the joint venture company, Universitas 21 Global with headquarters in Singapore. Its mission is "quality online higher education in a global marketplace". In May 2003, an online masters of business administration (MBA) was launched (www.u21global.com/cgi-bin/corp.dll/portal/ep/home.do). Universitas 21 Global's strategic focus is on Asia, with major emphasis on marketing to China. In mid-2003, the Universitas 21 Global Web site used just two languages, English and Mandarin. It is intended that its courses will be accredited by the participating universities in their relevant jurisdictions, using the quality assurance arm of Universitas 21, U21pedagogica.

Singapore

Olsen (2002) notes that in Singapore in 2000, more students accessed undergraduate external degree programmes (21 000) than studied overseas in English-language institutions (18 000), an indication of Singapore's capacity to make effective use of all forms of PIM (see Section 4.4.3), its well-developed technological capacity, its international outlook and the population's facility in English. Singapore also maintains a number of companies active in the development of international online education such as PurpleTrain.com, and NCC Education Limited based in the United Kingdom, both subsidiaries of the Singapore-based Informatics Group.

China

China's educational television network centres on ten provincial TV stations, and its experience with large-scale broadcast education predisposes it for distance-based provision. The Ministry of Education wants to create by 2010 a system of comprehensive lifelong learning using ICT. Steps to achieve this goal will include the rollout of fibre-optic wiring, satellite technology to carry data the "last mile" and eventually broadband; the China Education and Research Computer Network to link universities and other education institutions; the training of staff and students in ICT use; pilot courses in distance learning and the growth of online courses in universities; a growing role for the private sector in distance learning; and the creation of systems of quality assurance for all tertiary education, including distance and online programmes. In 2001, the Hong Kong Open University provided 155 courses to 25 000 students in Hong Kong, China (OECD, 2002b, pp. 792-795).

Other Asia-Pacific countries

In Thailand, growth in participation rates and in numbers of teenagers is expected to increase the number of secondary school graduates by a factor of 2.5 by 2015. This will place immense pressures on tertiary education facilities. The government sees e-learning as one part of the solution and launched the UNINET (International University Network) in 1997. It provides high-speed fibre-optic links to 51 higher education institutions, enabling Internet access and videoconferencing. UNINET also funds the development of on line courses in Thai higher education institutions (Saowapon *et al.*, 2001). Sukhothai Thammathirat Open University (STOU), established in 1970, the nation's open learning centre, is another vehicle for online education via its 2000 Plan. STOU has 450 000 students, 90% of whom work and cannot attend conventional classes (Soekartawi *et al.*, 2002, p. 290).

In countries such as Indonesia and the Philippines, distance education is essential for broadening access to tertiary courses. The dominant modes are still post/print and broadcast, largely the former. In Indonesia, the Open University (Universitas Terbuka), established in 1984, is the principal agent for accredited distance learning and one of five public bodies charged with responsibility for this medium. The Open University has 350 000 students. It plays an important role in professional upgrading courses for teachers, as does distance education in Cambodia and Myanmar (Soekartawi *et al.*, 2002). A number of individual Indonesian universities now want to begin their own distance education. This appears to reflect the recent decision to grant partial autonomy to some institutions, but the Department of Education is concerned about quality control. The government does not approve international providers of distance education and does not officially recognise qualifications obtained this way. There have been instances of restrictions on advertising by international provider (AEI, 2003). In the Philippines, distance education programmes are provided through the Department of Education and the University of the Philippines Open University (UPOU), which offers 20 degree programmes including a PhD programme. It began to offer online tutorial services in 2001, and in August 2002 the Philippines held its first major national conference on e-learning (Soekartawi *et al.*, 2002).

Conclusion

Despite the many formidable obstacles, it is certain the Internet will be used to a growing extent for cross-border education. Online education will develop alongside and as part of face-to-face cross-border education, either by adding e-facilities to largely face-to-face provision or by supplementing distance programmes with contact with teachers,

administrators and other students. Mixed mode approaches blur the standing of online degrees. This may be essential in the face of “buyer” resistance to purely online forms. Mixed mode approaches, especially with partnerships across national borders, also enable flexibility in the face of varying technological capacities and different cultural responses to foreign and English-language education within the region.

4.4.5. Regulation of cross-border education

The regulatory framework governing cross-border education in the Asia-Pacific region is being established, as it is throughout the world. Individual governments respond to cross-border initiatives and engage in bilateral negotiations. Contrary to Europe, there is no regional body able to take a multilateral approach. ASEAN and APEC lack the capacity to forge a strong consensus that cuts across national agendas. The one potential multilateral forum is the WTO/GATS. Regardless of the outcome of that process, the main catalysts of the regulatory framework will continue to be individual Asia-Pacific governments and foreign providers.

Trade agreements

The main policy instruments that affect trade in cross-border education are formal trade agreements and membership in multilateral economic bodies. While GATS is the most high-profile agreement, regional and bilateral trade arrangements also contribute. The principal trade body is the Asia Pacific Economic Cooperation (APEC) Education network which falls under the APEC Human Resources Development Working Group and replaced the APEC Education Forum established in 1988. By 2003 members included China; Hong Kong, China; Japan; Korea; Thailand; Malaysia; Indonesia; the Philippines; Singapore; Brunei Darussalam; Chinese Taipei; Vietnam; Papua New Guinea; Australia; New Zealand; the United States; Canada; Mexico; Chile; Peru and Russia. There are also many formal and informal trade relationships. Formal agreements include NAFTA; the ASEAN Free Trade Area of Indonesia, Malaysia, Singapore, the Philippines, Thailand, Brunei, Laos, Myanmar, Cambodia and Vietnam; the Australia-New Zealand Closer Economic Relations Trade Agreement; and bilateral agreements under negotiation. Informal arrangements for economic co-operation include “growth triangles” such as those formed by Southern China; Chinese Taipei and Hong Kong, China (CHT); Indonesia, Malaysia and Thailand (IMT); and Indonesia, Malaysia and Singapore (IMS) (Zainal-Abidin, 2000).

APEC’s goals include free and open trade and investment in the Asia-Pacific by 2010 for developed economies and 2020 for developing economies and the promotion of joint research, information sharing and technical co-operation among its members. Education is part of the agenda. It is addressed through mechanisms including the APEC Educational Forum, an intergovernmental consultative group; the University Mobility in the Asia-Pacific (UMAP) programme, which promotes student and staff exchange (see Section 4.4.1); and the Human Resource Development Working Group (HRDWG), which addresses *inter alia* sustainable development, lifelong learning, capacity building, and labour and social protection (Rudner, 1997, pp. 108-111; www.apecsec.org.sg). Educational trade, negotiation and cross-border co-operation are also affected by the 1995 APEC Action Agenda commitment to enhancing the mobility of business people (OECD/TD 2002, p. 63).²³

GATS positions

APEC recently published *Measures Affecting Trade and Investment in Education Services in the Asia-Pacific Region* (2000). The report was co-ordinated by Australia and New Zealand and

included survey responses from most member economies. It identified a range of measures hindering or promoting trade and discussed issues such as potential effects on host governments in terms of access and equity. One of the aims was to “assist economies in preparing for the WTO education services negotiations”. To date negotiating proposals for education services have been submitted to the WTO by Japan, Australia and New Zealand. Each proposal endorses trade liberalisation.

The Japanese proposal casts this in the context of capacity building. Japan feels that it has become extremely important to improve the quality of education and research and respond flexibly to the rapidly changing needs of society. It recognises that to pursue these policy objectives implies a certain level of liberalisation, but also requires certain governmental policy measures. Therefore, Japan encourages each WTO member in the course of the forthcoming request and offer negotiations to promote liberalisation in the education services sector through better market access, further assurance of national treatment and deregulation of related domestic regulations (WTO, 2002).

Drawing upon the APEC study, Australia’s negotiating proposal lists various impediments to trade, including visa requirements, foreign exchange requirements, qualification recognition, restrictions on ownership and foreign equity, lack of regulatory transparency, employment restrictions, and import restrictions on educational materials (WTO, 1 October 2001). Australia also states that governments must “retain their sovereign right to determine their own domestic funding and regulatory policies/measures” (WTO, 2001a). New Zealand states that the “reduction of barriers to trade in education does not equate to an erosion of core public education systems and standards”. It argues that trade can be a means of reducing the public costs of infrastructure and “supplementing and supporting national education policy objectives” (WTO, 26 June 2001).

Some regulations are seen by exporters as barriers to trade but are seen by host countries as necessary to safeguard the integrity of local systems. During GATS negotiations in late 2002, Norway convened an Education Alliance to explore issues arising from the treatment of education as a tradable service. Members include Norway, Australia, New Zealand, South Africa, Japan, India, Uruguay, Argentina, Chile, Thailand, China, Egypt, Senegal, Turkey, Jordan, Kenya and Mexico. The group combines net importers and net exporters, with a range of attitudes toward trade liberalisation, but has a mutual interest in addressing issues of public good, quality assurance and consumer protection (Gallagher, 2002; Stevens, 2003).

National regulation of foreign PIM providers

The Asia-Pacific nations have devised measures to regulate entry and operating conditions for foreign providers both to respond to, and to initiate and promote, the growth of programme and institution mobility. Countries in the region are on a steep learning curve. Arguably, however, they are leaders in grappling with a range of issues such as consumer protection, cultural compatibility, language use, the role of foreign textbooks and curricula, and models of ownership and governance of foreign education via PIM on their own soil. In a survey of member economies, APEC reported that nearly all 14 respondents had implemented “authorisation or licensing schemes for foreign service providers” and related accreditation programmes (APEC, 2000, p. 23). The regulatory approaches taken by some leading importers (Hong Kong, China; Singapore; Malaysia; Indonesia; China), as well as Australia are outlined below.

Since 1997, Hong Kong, China has regulated provision of foreign courses on its soil through the Non-local Higher and Professional Education (Regulation) Ordinance (Government of Hong Kong, 1997a, 1997b, 2001; French, 1999; McBurnie and Ziguras, 2001). The legislation aims to protect Hong Kong consumers by guarding against the marketing of substandard non-local courses. It also aims to enhance Hong Kong's reputation as a community which values reliable and internationally recognised academic and professional standards through a system of registration as well as control over advertisements, refund and use of premises. The full regulations, electronic versions of forms to be completed by applicant providers, a list of current foreign courses and the rationale of the Ordinance are provided on the government's Web site (www.info.gov.hk/emb/eng/prog_high/nonlocalrules.html).

Applicants must provide details of proposed courses, including content, delivery, assessment and support services. When foreign providers are partnered with government-recognised local institutions, the head of the latter must vouch for the application and confirm that the programme does not absorb public funding. In other cases, applications are examined by education experts engaged by the government. The documentation is provided to prospective students and there are penalties for false or misleading information. Providers of foreign courses cannot legally operate outside the Ordinance and must submit regular reports. The focus on transparency of information and consumer protection is consistent with the open-market philosophy of Hong Kong, China.

In Singapore, foreign institutions operating with local providers must apply for government approval, supplying details of course content, the status of the foreign provider at home and the division of responsibilities between the foreign and local partners. The local partner may provide physical infrastructure, marketing, logistical and administrative support but not teaching.²⁴ Regulations are more liberal and fluid for foreign branch campuses such as INSEAD (France) and the University of Chicago Business School (United States). Partnerships with local universities, such as that between Singapore Management University (the first private university) and the Wharton School (University of Pennsylvania, United States), can only be created at government invitation (Singapore Ministry of Education, 2000; Ziguras, 2003).

Malaysia's requirements for foreign providers are set out in legislation dating from 1996 when the country opened its system to foreign branch campuses. There is a five-stage approval and review process, covering educational, business and legal requirements, for foreign providers seeking to establish as fully recognised operators. Addressing the concern to ensure the nation-building role of education, the Private Higher Educational Institutions Act (1996) stipulates the subjects that Malaysian citizens must pass in order to graduate, regardless of discipline: Malaysian studies, Bahasa Melayu, Islamic studies for Muslim students and moral education for non-Muslims (Kandasamy and Santhiram, 2000; McBurnie and Ziguras, 2001).

Programme mobility in Indonesia is a form of twinning. Students can receive qualifications from both the local institution and the foreign provider, on condition that at least one semester is spent studying abroad in the foreign institution. Foreign qualifications must be accredited in the home jurisdiction, and to receive a licence as "working partner" the foreign provider's programme must be evaluated by the Indonesian Directorate General of Higher Education (DIKTI) of the Department of National Education. Co-operation should not be undertaken merely for profit and should be an "equal

partnership” benefiting all parties. Activities should cover a range of academic functions, including teaching, research and community service. The partnership should be consistent with national and institutional priorities, and “must be harmonious with the direction of higher education policy in general, and [...] the strategic plan of the relevant higher education institutions”. Further, “co-operation [...] shall be prioritised in the fields in which graduates are especially required”. There are also stipulations on the language of instruction. Not more than 50% of the course should be taught in a foreign language without prior written permission from the Minister of Education and Culture. Periodic reports must be submitted to the minister for evaluation (Minister of Education and Culture of the Republic of Indonesia, 1999; Director General of Higher Education of the Republic of Indonesia, 2000).

The “Regulations of the People’s Republic of China on Chinese-Foreign Co-operation in the Running of Schools”, which took effect from 1 September 2003, sets out requirements for the provision of foreign education and notes that compliant institutions “shall enjoy preferential policies made by the State and enjoy autonomy when conducting educational activities in accordance with law”. Conversely, the regulations stipulate that foreign institutions cannot operate independently.²⁵ The aim is to encourage partnership programmes between Chinese higher education institutions and “renowned foreign institutions of higher learning”. Detailed documentation is required on the academic, managerial, and financial resources of the proposed partnership. The information passes through a three-stage approvals process, and approved co-operative institutions will be subject to regular quality evaluation and an independent annual financial audit. There is provision for revoking the operating licence if serious shortcomings are not rectified within a specified time. As in the Hong Kong, China regulations, there are penalties for using false information to recruit students. The institution may use foreign texts, but Mandarin is the “basic teaching language”. The institution’s head must be a citizen and permanent resident of China, “love the motherland, possess moral integrity, and have work experience in the field of education and teaching as well as compatible professional expertise” (New China Newsagency, 24 March 2003).

In New Zealand, where only a small number of foreign providers are operating, the Education Act 1989 sets the requirements for establishment as public tertiary education institutions as well as the requirements for the use of protected terms such as “university”, “college of education” or “polytechnic”, and the terms “degree”, “bachelor”, “master” or “doctor”. Hence, foreign educational providers cannot operate in New Zealand using the “university” status they have in their home countries. The Education Act also sets the requirements for registration as a private training establishment (PTE), a registration that gives foreign/domestic providers equal treatment for public funding purposes. Where a foreign course is to be offered by New Zealand and approval is required, the New Zealand provider is required to provide evidence of approval by an overseas agency and details of the approval process undertaken by that agency to the NZ Qualifications Authority (NZQA). If the criteria applied to the proposal are sufficiently similar to those of the NZQA and the process applied was adequately rigorous, the NZQA approves the proposal or negotiates an amended approval process. The NZQA considers the potential for legal, professional or cultural requirements and concerns to impact on the acceptability of the course for NZ conditions. If the course is managed in conjunction with a New Zealand-based organisation, a “memorandum of cooperation” between the partner organisations is required by the NZQA, specifying responsibility for the delivery, assessment, moderation, resourcing, and monitoring of the course.

In Australia in March 2000 the joint federal/state Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) endorsed the “National Protocols for Higher Education Approval Processes”. These provided the first agreed national criteria for university recognition, and set out for the first time requirements for foreign providers wishing to establish in Australia. Foreign providers must demonstrate their standing and accreditation in the home jurisdiction and give evidence of comparability of courses “in requirements and learning outcomes to a course at the same level in a similar field in Australia”. Delivery arrangements, including “academic oversight and quality assurance”, must be “comparable to those offered by accredited Australian providers”. Evidence of sound financial and management systems is also required (MCEETYA, 2000, 3.9). Applications are reviewed by an independent expert panel, which examines documentation, inspects facilities and interviews students and staff. Approved institutions are listed on the Australian Qualifications Framework register of bodies authorised to award qualifications. These protocols have yet to be substantially tested by foreign applicants.

4.5. Actors and partnerships

4.5.1. Actors

The key agents in cross-border education are discussed above: students and families, governments and higher education institutions. Governments and institutions can be further divided into the two broad groups of importer nations/institutions, and exporter nations/institutions.

4.5.2. Partnerships

Educational partnerships in the Asia-Pacific region, which are instrumental in fulfilling the objectives of capacity building and of academic, political and cultural policies and strategies, as well as educational trade have also been examined (see Sections 4.2.3 on institutions, 4.4.3 on PIM and 4.4.5 on regulation). The two major types of partnerships are traditional collegial forms of intergovernmental and inter-institutional academic co-operation; and commercially oriented partnerships developed in the last 15 years to deliver cross-border programmes for payment.

Co-operative linkages across national borders are many and take several forms. These include formal regional and international agreements, agreements between institutions, contracted research projects and other formalised ties between academic units in different universities, as well as informal links among individuals with a shared disciplinary interest. The following is a brief overview accompanied by some examples.

International organisations in which Asian regional representatives participate include UNESCO, the International Association of Universities (IAU), the International Association of University Presidents, the CERI and IMHE arms of the OECD (whose conferences and publications involve both member and non-member countries). Under UNESCO, the Asia-Pacific Centre for Educational Development and Innovation (ACEID) promotes various educational co-operation measures, among them the Regional Convention on the Recognition of Studies, Diplomas and Degrees in Higher Education in Asia and the Pacific. The Convention entered into force in 1985 following a conference involving 31 states (www.unescobkk.org/education). To date, there are 14 signatories to the Convention and 30 countries have established National Information Centres (NICs) on higher education qualifications in Asia and the Pacific. Established at the end of the 1990s,

the APEC Engineer Project involves co-operation among 14 countries to promote professional recognition through a system of registration and a mutual exemption framework (see details at www.apec.org).

Several regional co-operative organisations are of particular note. UNESCO, IAU and the Southeast Asia Ministers of Education Organisation (SEAMEO) form the Southeast Asian Regional Centre for Higher Education and Development (SEAMEO-RIHED), which regularly produces information about co-operative programmes and details of education systems in the region (www.rihed.seameo.org). The Association of Southeast Asian Institutions of Higher Learning (ASAIHL), established in 1956 to promote regional co-operation in education, has more than 150 member institutions from 14 countries. ASAIHL provides conferences, a publications programme and a Fellowship and Academic Exchange Programme with funding from more than a dozen corporate sponsors (www.seameo.org). The Association of Universities of Asia and the Pacific (AUAP), established in 1995 and comprising more than 130 member institutions from 18 countries, runs a conference and seminar programme (sut2.sut.ac.th/auap/).

Numerous bilateral agreements variously address broad cultural interests, general educational and academic co-operation and specific joint projects. At the APEID meeting in November 2000, Korea reported bilateral cultural agreements with 81 countries; China reported bilateral agreements on education with 14 countries; and Australia reported qualification agreements with five countries (APEID, 2000). Australia is conducting collaborative projects with Malaysia, Thailand, China and India to improve administrative and academic management and research management (see details at www.avcc.edu.au).

At the inter-institutional level there are tens of thousands of agreements²⁶ for research, curriculum development, teaching and student and staff mobility. Australian institutions report signed agreements for academic co-operation to the Australian Vice Chancellors Committee and consolidated lists are posted on its Web site (AVCC, 2003a). In May 2003 there were 4 485 formal agreements between Australian universities and overseas institutions. Major partner countries included China and Hong Kong, China (462 agreements), Japan (369), Thailand (207), Korea (193), Indonesia (158), Malaysia (127). North American and European partners included the United States (695 agreements), Germany (257), United Kingdom (233), France (187), Canada (176) and Sweden (166).²⁷ The research and other Asia-Pacific linkages of the Australian National University (see Box 4.3) demonstrate the potential of such academic co-operation in fostering internationalisation.

Fee-charging PIM in Asia chiefly takes place through partnerships between local and foreign entities. These may include public universities; corporate arms of public universities, private colleges or training institutions; education/training arms of professional associations or training arms of corporations; and businesses whose core business is not education but which provide capital or other resources (in Malaysia RMIT is partnered with a construction company and Monash with a ceramic pipe and construction company). Hybrid arrangements are common; for example, one partner may be “for-profit” and the other “not-for-profit”. Further, institutions that are public universities in their home jurisdiction and which provide internationally mobile programmes are normally defined as private operators by the host government. PIM partnerships are different from the informal arrangements typical of traditional academic co-operation. They are governed by formal contracts, and responsibilities, roles and timelines are specified. In the academic enterprise collegiality is blended with a business approach. The contract may include:²⁸

Box 4.3. **The Australian National University: international research links as a primary mission**

The Australian National University (ANU) in Canberra defines its mission in terms of a strong international orientation of the conventional academic kind. It maintains a government-funded Institute of Advanced Studies with specialist research schools in the physical sciences, life sciences, social sciences and Asia-Pacific studies. The Asia-Pacific research school was established at the founding of the ANU, half a century ago, to strengthen Australia's understanding of the Asia-Pacific region. It does no teaching aside from supervision of doctoral research. It sustains a large-scale concentration of research expertise: it has more China specialists and more Indonesia specialists than any university in North America. Approximately USD 275 million of a total ANU budget of USD 325 million per year is allocated to research activity and the services that support it; and approximately USD 35 million are spent by the university on research and teaching in Asia-Pacific studies, perhaps ten times the amount spent by any other Australian university on region-focused academic activities.

This specialist orientation, and ANU's commitment to the Asia-Pacific region, has determined the character of its international orientation. Unlike most other Australian universities, it has not developed a large cohort of fee-paying international students in undergraduate and coursework postgraduate programmes. Rather it sustains regional student and staff exchange to a degree unusual in Australia – students in the Faculty of Asian Studies routinely spend a subsidised semester or two at an Asian university as part of their undergraduate degree – and vigorously builds research collaborations on a global scale. For example the Research School of Physical Sciences and Engineering currently maintains 150 active research programmes and projects with partner universities abroad, located in 27 different countries. The largest group of research collaborations is in Europe/United Kingdom, followed by North America, East Asia and Latin America. In Asia there are research partners in Japan, Korea, China, Chinese Taipei and Singapore; Hong Kong, China and Indonesia. About half of the research school's research publications include a non-Australian as an author. Often, the enrolment of individual doctoral students is the starting point for inter-country collaborations, which have grown and broadened geographically in the last 15 years. The selection of partners tends to be determined by available research funds, especially national government funds for research collaboration and joint activities, and the support provided by larger cross-national schemes. These incentives are driving trends towards larger-scale and more multinational research programmes, with less emphasis on small scale one-to-one academic ties between individual researchers (Marginson and Sawir, 2003).

- *Teaching and assessment:* course materials, delivery of content, academic support, assessment, programme evaluation.
- *Administration and student support:* course administration, unit administration, student counselling.
- *Infrastructure and support services:* library services, academic teaching staff, examinations, classroom facilities, computing services and Internet access, financial arrangements, graduation.
- *Marketing and recruitment:* general course promotion, public presentations, inquiries from the public, applications for admission, student orientation, market research.

Such detail may be atypical of the domestic offerings of both parties.

4.6. Opportunities and challenges

The Asia-Pacific region is the world's laboratory for examining the implications of demand-driven, trade-oriented mobility of people, programmes and institutions in education for students, importing countries and exporting countries. All face opportunities, challenges and issues.

4.6.1. Opportunities

The key benefits of cross-border education in the region are linked to capacity building. At the same time, it must be acknowledged that "brain flows" are not always universally beneficial, that asymmetry is more common than balance, and that the interdependence of local systems, foreign provision and the global environment is complex.

For the student, cross-border education provides access to opportunities for learning and work beyond the national system. These may include living, studying and working in a foreign country and immersion in a foreign language environment, while students enrolled in mobile programmes or institutions can gain a cheaper foreign degree, without disruption to home life or employment.

Importing nations increase the educational opportunities of citizens, and, in the case of internationally mobile programmes and institutions, expand the local education infrastructure and augment employment opportunities for academic, administrative and managerial staff. In the case of fee-for-service education, costs are shifted from the taxation base to the individual student (fees) and the exporting institution (infrastructure and financial risk). In the case of academic and student exchange, importer nations and institutions are sensitised to the world beyond, with short-term and long-term spillovers including the potential for expanded academic collaboration and institutional partnerships. When there is a net brain gain, the economy's human resource base is improved and the country's citizens become more internationally aware. National prestige may even be enhanced by the status of the institutions attracted, as in Singapore.

Exporting nations collect tuition fees; for governments the taxation cost of higher education falls and institutions gain discretionary finance. As with educational imports, there are also powerful non-financial benefits: sharing knowledge and educational programmes across borders creates new opportunities for joint academic projects and economic and cultural engagement. These benefits apply whether international education is provided as aid or trade or a mix of the two. The institution's international profile is enhanced, and the exporting nation expands its foreign alumni and its long-term international networks for staff and students. Other potential gains are a more internationally oriented curriculum, greater mobility for local staff and students and an enriched social, learning and teaching environment. These benefits may also flow to importer nations in some degree.

However, individuals, institutions and nations must have the basic economic and cultural resources to make effective use of their opportunities. These resources are unevenly distributed within populations, between institutions and between nations. Generally, the Asia-Pacific nations and institutions that benefit most from the greater mobility of personnel and knowledge are those with competence and capacity in both local and cross-border activity. They have indigenous strengths in education and research, and they have strong two-way flows. They are robust enough to make their own contribution to global higher education and to attract people, money and ideas. At the same time, they are sufficiently

interested in foreign sites – and linguistically and culturally competent to engage with them – to develop strong, on-going alliances. Such nations and institutions are adept not only in bilateral relations but in the global systems of finance, information and research.

The mobile student must have scholarship support or the financial wherewithal to be a consumer of international education. The importer nation must be sufficiently attractive to draw mobile programmes and institutions. However, without a sound cost model, the commercial exporter institutions court financial disaster. The opportunities are inseparable from the challenges.

4.6.2. Challenges

For the cross-border student, as options proliferate, obtaining detailed, accurate and useful information about courses on offer becomes a greater challenge. Market research by EduWorld, Australian Education International and others shows that students access a variety of information sources, including marketing fairs, Web sites, institutional catalogues, published comparative reviews of institutions, and peers, teachers and graduates. With the potential for growth in courses, non-traditional providers and innovative forms of delivery (including online education), it would be useful for governments and NGOs to seek ways to ensure that appropriate information is available for student decision making. This challenge relates to matters of quality assurance and consumer protection.²⁹

In New Zealand, Australia and other countries with low rates of domestic student mobility, governments and institutions are challenged to encourage study abroad. At the same time, exporter nations do not always fully realise the potential cultural and academic benefits of mixing international and local students. For exporters, there is much scope for strengthening other non-pecuniary benefits, for example enhancing staff development in international education and fostering international awareness in all students through curricula and extra-curricular activities. For institutions and policy makers in English-speaking countries, with the fortunate advantage of providing education in this globally powerful language, there is the challenge of moving beyond mono-culturalism and the one-way flow of people and ideas, and to deepen their cultural capacities so as to engage more effectively with the emerging nations and cultures of the region.

The challenge of quality assurance for mobile programmes and institutions is a concern shared by importers, which need to protect students, and by exporters, which need to maintain market credibility and academic integrity. Importers may implement legislation and enforce registration and review requirements; exporters may audit PIM programmes, for example through the Australian Universities Quality Agency, and the UK Quality Assurance Agency; and by invited reviews by external bodies such as professional associations and the International Organization for Standards (ISO). There may also be opportunity for closer co-operation among countries in forging internationally agreed principles and procedures for quality assurance. Much remains to be done to co-ordinate quality assurance in the Asia-Pacific region.

In addition, public institutions acting in a commercial manner outside their home jurisdiction are exposed to a range of financial, reputational, legal and sovereign risks not encountered at home (McBurnie and Pollock, 2000). Koelman and De Vries (1999, p. 176) suggest a set of principles to guide or regulate the activities of hybrid universities. Several may be particularly apposite for institutions engaged in cross-border education:

- Their public duty (teaching and research) may not be endangered.
- Students should not become the victims of entrepreneurial activities.
- The prestige of the university as a public institution may not be harmed.
- Commercial activities should connect with the core business of the university.
- Entrepreneurial risks should not be shifted onto the taxpayer.

On the other hand, it is argued that if public universities have to make their way in the marketplace, the taxpayer should take some of the risk, on the grounds that the taxpayer gets the benefit of the expanded resources institutions earned through their entrepreneurial activities. A future challenge for current and potential exporter governments may be to put effective guidelines and mechanisms in place to ensure public institutional accountability for entrepreneurial activities.

Notes

1. Asians play a large role in employment-based migration to the United States. They constitute one-third of all US immigrants but one-half of those who receive employment-based immigration visas. Many of these Asians first entered the United States on student visas. For example, since the early 1990s about 900 000 highly skilled professionals migrated to the United States under the H1B temporary visa programme. About half of all H1B migrants were from India. Nearly all entered the IT sector. Some 25% of H1B visa holders in 1999 were previously students in US universities (Martin, 2003).
2. The IT industry in India attracts some people back. In 2000, for example, an estimated 1 500 highly qualified Indians returned from the United States. Nevertheless, more than 30 times that number depart each year (Cervantes and Guellec, 2002a, p. 93).
3. Even so, within the United States there are internal imbalances in the distribution of skills and intellectual competencies, with a tendency to “brain concentration” in the urban centers linked to the global economy.
4. Numbers for Singapore are not available, but Singapore is increasing its export role.
5. In 2001, the most commonly studied languages in Australian schools across all school levels were, in descending order: Japanese, Italian, Indonesian, French, German and Chinese languages (according to the Australian Ministerial Council on Employment, Education, Training and Youth Affairs). In 2002, data collected by Australian State and Territory Boards of Studies found that the most commonly studied languages at the final secondary school level were, in descending order: Japanese, French, Chinese languages, German, Italian and Indonesian.
6. Virtually no Americans enter Spanish-speaking institutions despite the growing role of Spanish in the United States.
7. Between 1993 and 1998, the post-secondary participation of the wealthiest quintile rose from 13% to 37%, but that of the poorest quintile only rose from 0 to 0.4%.
8. The government also encouraged a transnational community in science and engineering, sponsoring meetings and conferences networking Taiwanese at home with those working in the United States and others moving between the two countries. Some graduates returned to establish companies in the government-developed Hsinchu Science-based Industrial Park which provided continuing opportunities for graduates (Luo and Wang, 2002, pp. 255-256).
9. The different outcomes in Malaysia for *bumiputra* and non-*bumiputra*, the predictable result of a bifurcated policy, function as *de facto* national strategy for the formation of an ethnic professional elite.
10. This varies as colleges are opened and closed at the margin of the sector.
11. Nevertheless, in many countries “study abroad” programmes are actually fee-paying programmes undertaken as part of a degree, normally for a semester or a year.
12. Compared to a similar survey in 1997, respondents set a relatively greater emphasis on the experiential/personal development benefits of living overseas, particularly students from

- Singapore and Malaysia. They placed less importance on perceptions that a foreign education was of superior quality.
13. Australian dollar = 0.54c, New Zealand dollar = 0.43c, Canadian dollar = 0.66c, Pound Sterling = \$1.46.
 14. However, there is more variation in the length of business degrees than in the length of most tertiary courses.
 15. While there was a temporary downturn in the demand for international education in Southeast Asia and Korea, it can be surmised that Australia benefited from a “substitution effect” whereby some students switched from the more expensive destinations of the United States and the United Kingdom to Australia.
 16. In central and southern Europe and in South America, there were more enrolments in Australia’s non-degree vocational sector than in higher education programmes. In East Asia, the Middle East and especially in central and southern Europe, the English-language colleges enrolled more students than onshore higher education (AEI, 2003).
 17. The share of foreign students exceeded 15% at Curtin University of Technology, the University of South Australia, Central Queensland University, Victoria University, the University of Southern Queensland, the University of Wollongong, Swinburne University and Murdoch University.
 18. The shares were highest at Lincoln University, with 803 international students out of a total of 3 119 (25.7%) and Waikato with 15.4%.
 19. In 1997 Korean students studying abroad spent USD 3.42 billion on tuition and living costs (AEI, 2003).
 20. Full-time students are normally able to engage in longer hours of paid employment in their home country than if they were studying in Australia, owing to visa restrictions.
 21. The APEC group in services found that the main impediments related to the distribution of educational materials, but this mostly concerns primary education (APEC, 2000).
 22. Bates (2001) argues that the main virtue of online education is not that it provides cheap mass education but that it broadens the educational experience, enabling Internet-based sources and new interactive modes of teaching and assessment.
 23. This Agenda includes commitments to exchanging information on regulatory regimes, the streamlining of short-term business visitor visas, and procedures for temporary residency of business people.
 24. However, the status of “administrative support seminars” provided for students to supplement distance education materials during the periods between visits by foreign lecturers, is unclear.
 25. Operations that predate the regulations must now apply for a “Sino-Foreign Co-operative School Licence” in line with the regulations.
 26. Though some are no doubt inactive or lapsed.
 27. These agreements include provisions for the following activities: staff exchange (70% of agreements in 1999, 62% in 2003), student exchange (moving from 70% to 72%), research (from 77% to 68%), and study abroad (from 14% to 19%).
 28. Monash University Office of International Development, unpublished contract template, 2003.
 29. The position of local students in net exporting countries is worthy of attention. In Australia, the effect of international students on the local system – in terms of affecting access and academic standards – has come under closer scrutiny in recent years. An illustrative example is provided by the Office of the Auditor-General of Victoria, Australia, which undertook in 2001-02 a performance audit of the international student programmes of universities in that state (Auditor General Victoria, 2002). The previous such audit (in 1993) focused on whether international students were being appropriately served by universities. The main focus of the later audit was on whether the international student programmes were beneficial or detrimental to local students and the interests of taxpayers. The methodology included gathering and analysing statistical and financial data, examining university policies and procedures and student academic performance, and surveying academic staff. The report confirmed that local students were not displaced by international students (and that such displacement “is both protected against and regulated” by the Commonwealth government) and indeed that the presence of international students contributed favourably to staff-student ratios in high-demand disciplines. Academic standards were a major focus of the report. The Australian press had publicised allegations of preferential

assessment, or “soft marking” of the work of fee-paying international students. The Auditor’s study found no evidence of institutionalised soft marking, and concluded that where it exists “it is an isolated and occasional incident”, usually resulting from an individual academic giving a (local or international) student the “benefit of the doubt”. The report also underlined a range of important non-quantifiable benefits, including cultural and social enrichment for students and the wider community. While the report was generally positive, it demonstrates that there is a challenge for exporting governments to ensure that the concerns of the community are addressed, and that the public is well informed about the local effects of cross-border education.

References

- Acedo, C. and M. Uemura (1999), *Education Indicators for East Asia and the Pacific*, World Bank, Washington.
- ADB (Asian Development Bank) (2003), *Key Indicators of Developing Asian and Pacific Countries 2002*, Volume XXXIII, ADB, Manila.
- AEI (Australian Education International) (2003), data on international education in Australia, and the principal source countries for foreign students in Australia, <http://aei.detya.gov.au>
- APEC (Asia Pacific Economic Cooperation) (2000), *Measures Affecting Trade and Investment in Education Services in the Asia-Pacific Region: A Report to the APEC Group on Services*, Asia Pacific Economic Cooperation Secretariat, Singapore.
- APEID (Asia Pacific Centre of Educational Innovation for Development) (2000), “Final Report of the Sixth Session of the Regional Committee for the Regional Convention on Recognition of Studies, Diplomas and Degrees in Higher Education in Asia and the Pacific”, Bangkok, Thailand, 10 November.
- Auditor General Victoria (2002), *International Students in Victorian Universities*, Auditor General Victoria, Melbourne.
- AVCC (Australian Vice Chancellors Committee) (2002), “UMAP Country Report”, AVCC, Canberra.
- AVCC (2003a), “Formal Links in Place or Being Negotiated by Universities in Australia and Higher Education Institutions Overseas”, AVCC, Canberra, www.avcc.edu.au
- AVCC (2003b), “Offshore Programs Conducted under Formal Agreements between Australian Universities and Overseas Higher Education Institutions or Organisations”, AVCC, Canberra, www.avcc.edu.au
- Banks, M. and G. McBurnie (1999), “Embarking on an Educational Journey—the Establishment of the First Foreign Full University Campus in Malaysia under the 1996 Education Acts: A Malaysian-Australian Case Study”, *Higher Education in Europe*, 24, 2, pp. 265-272.
- Bates, T. (2001), *National Strategies for E-learning in Post-Secondary Education and Training. Fundamentals in Education Planning No. 70*, International Institute for Education Planning, UNESCO, Paris.
- Bhushan, I., E. Bloom and N.M. Thang (2002), *Unequal Benefits of Growth in Vietnam*, ERD Policy Brief Series 3, Asian Development Bank, Manila.
- Blight, D. and L. West (1999), “Demand for Transnational Higher Education in the Asia Pacific”, Paper presented at the Global Alliance for Transnational Education Conference, “Access or Exclusion? Trade in Transnational Education Services”, Melbourne, October.
- Bohm, A., D. Davis, D. Meares and D. Pearce (2002), *Global Student Mobility 2025: Forecasts of the Global Demand for International Higher Education*, IDP Education Australia, Canberra.
- Borton, J. (2001), “Australia’s ‘Virtual Colombo Plan’ Targets Developing Nations”, *University Business World Higher Education Reporter*, 3 September.
- Braddock, R. (2002), “The Asia-Pacific Region”, *Higher Education Policy*, 15, pp. 291-311.
- Cervantes, M. and D. Guellec (2002a), “International Mobility of Highly Skilled Workers: From Statistical Analysis to Policy Formulation”, *International Mobility of the Highly Skilled*, OECD, Paris, pp. 71-98.
- Cervantes, M. and D. Guellec (2002b), “The Brain Drain: Old Myths, New Realities”, *OECD Observer*, 7 May.
- Chalamwong, Y. (2003), “International Migration of Highly Skilled Workers in Thailand”, *Migration and the Labour Market in Asia: Recent Trends and Policies*, OECD, Paris, pp. 51-64.

- China Youth Daily, 6 April 2003.
- Crystal, D. (1997), *English as a Global Language*, Cambridge University Press, Cambridge.
- Davis, D, C. Milne and A. Olsen (1999), *Becoming Internationally Competitive: The Value of International Experience for Australian Students*, IDP Education Australia, Sydney.
- Davis, D., A. Olsen and A. Bohm (2000), *Transnational Education Providers, Partners and Policy: Challenges for Australian Institutions Offshore*, IDP Education Australia, Sydney.
- Dawkins, J., Australian Minister for Education, Employment and Training (1988), *Higher Education: A Government Policy Statement*, Australian Government Publishing Service, Canberra.
- DEST (Department of Education, Science and Training) (2003), Commonwealth of Australia, Higher education statistics collection, www.dest.gov.au/highered/statinfo.htm
- Deupree, J.L., M.E. Johnson and L.M. Peace (eds.) (2002), *OECD/US Forum on Trade in Education Services: Conference Proceedings*, The Center for Quality Assurance in International Education, Washington D.C.
- Director General of Higher Education of the Republic of Indonesia (2000), "Decision of the Director General of Higher Education of the Ministry of National Education of the Republic of Indonesia No. 61/Dikti/Kep/2000 Regarding Guidelines for the Implementation of Cooperation between Higher Education Institutions in Indonesia and Overseas Higher Education Institutions/Other Institutions".
- EduWorld (2001), *The Asian Student of 2000. Choice Factors and Influences of Asian Undergraduates Studying Overseas*, EduWorld, Melbourne.
- French, N.J. (1999), "Transnational Education—Competition or Complementarity: The Case of Hong Kong", *Higher Education in Europe*, 24 2, pp. 219-223.
- Gallagher, M. (2001), "E-learning in Australia: Universities and the New Distance Education", paper for the 7th OECD/Japan Seminar on E-learning in Post-Secondary Education, Tokyo, 5-6 June.
- Gallagher, M. (2002), *Internationalising Education: Address to the Sixth National Teaching Forum of the Australian Universities Teaching Committee*, Australian Education International, Commonwealth Department of Education, Science and Training, Canberra.
- Gallagher, M. (2003a), *2nd Letter to Industry from Mike Gallagher, CEO AEI*, Australian Education International, Canberra.
- Gallagher, M. (2003b), *New Directions in International Education: AEI Industry Seminars Plenary Address*, Australian Education International, Canberra.
- Gayathri, V. (2002), "Rethinking Highly-skilled International Migration: Research and Policy Issues for India's Information Economy", *International Mobility of the Highly Skilled*, OECD, Paris, pp. 201-212.
- Government of Hong Kong (1997a), *Non-Local Higher and Professional Education (Regulation) Ordinance*, www.justice.gov.hk/
- Government of Hong Kong (1997b), *Implementation of the Non-local Higher and Professional Education (Regulation) Ordinance*, www.info.gov.hk
- Government of Hong Kong (2001), *Non-Local Higher and Professional Education (Regulation) Ordinance—List of Registered Courses*, www.info.gov.hk/emb/eng/prog_high/
- Guochu, Z. and L. Wenjun (2002), "International Mobility of China's Resources in Science and Technology and its Impact", *International Mobility of the Highly Skilled*, OECD, Paris, pp. 189-200.
- Hashimoto, H. (2003), "Doctoral Study of the Students Exchange Program in Japanese Universities", Faculty of Education, Monash University, Melbourne, Australia.
- Hirsch, D. (2001), *Rapporteur's Report to the 7th OECD/Japan Seminar on E-learning in Post-Secondary Education*, Tokyo, 5-6 June.
- Hirsch, D. (2002), *Rapporteur's Report to OECD/US forum on Trade in Educational Services*, Washington, 23-24 May.
- Hirsch, F. (1976), *Social Limits to Growth*, Harvard University Press, Cambridge.
- IDP Education Australia (2002), data base on international education.
- IDP Education Australia, with Australian Education International (2001), *Comparative Costs of Higher Education Courses for International Students in Australia, New Zealand, the United Kingdom, Canada and the United States*, IDP, Sydney.

- Iguchi, Y. (2003), "The Movement of the Highly Skilled in Asia: Present Situation and Future Prospect", *Migration and the Labour Market in Asia: Recent Trends and Policies*, OECD, Paris, pp. 29-50.
- ILO (International Labour Office) (2003), "Skilled Labour Mobility: Review of Issues and Evidence", *Migration and the Labour Market in Asia: Recent Trends and Policies*, OECD, Paris, pp. 71-87.
- Kandasamy, M. and R. Santhiram (2000), "From National Interest to Globalization: The Education System of Malaysia", in K. Mazurek, M.A. Winzer and C. Majorek (eds), *Education in a Global Society: A Comparative Perspective*, Allyn and Bacon, Boston.
- Kaul, I., I. Grunberg and M. Stern (eds.) (1999), *Global Public Goods: International Cooperation in the 21st Century*, Oxford University Press, Oxford.
- Keating, P., Prime Minister of Australia (1995), *Advancing Australia*, collected speeches, edited by Mark Ryan, Big Picture Publications, Sydney.
- Koelman, J. and P. De Vries (1999), "Marketisation, Hybrid Organisations and Accounting in Higher Education", B. Jongbloed, P. Maassen and G. Neave (eds.), *From the Eye of the Storm: Higher Education's Changing Institution*, Kluwer Academic Publishers, Dordrecht.
- Korea, Government of (2002), *STI Outlook 2002 – Country response to policy questionnaire*, OECD, Paris.
- Luo, Y.-L. and W.-J. Wang (2002), "High-skill Migration and Chinese Taipei's Industrial Development", *International Mobility of the Highly Skilled*, OECD, Paris, pp. 253-269.
- Malaysia, Government of (2002), *Malaysian Educational Statistics 2001*, Ministry of Education, Kuala Lumpur.
- Marginson, S. (1997), *Educating Australia: Government, Economy and Citizen since 1960*, Cambridge University Press, Cambridge.
- Marginson, S. (2000), *Monash: The remaking of the University*, Allen and Unwin, Sydney.
- Marginson, S. (2001), *The Global Market in Foreign Higher Education: The case of Australia*, paper for the 26th Annual Conference of the Association for Studies in Higher Education (ASHE), 15-18 November, Richmond, Virginia.
- Marginson, S. and M. Considine (2000), *The Enterprise University: Power, Governance and Reinvention in Australia*, Cambridge University Press, Cambridge.
- Marginson, S. and M. Mollis (2001), "The Door Opens and the Tiger Leaps: Theories and Reflexivities of Comparative Education for a Global Millennium", *Comparative Education Review*, 45 (4), pp. 581-615.
- Marginson, S. and G. Rhoades (2002), "Beyond National States, Markets and Systems of Higher Education: A Glonacal Agency Heuristic", *Higher Education*, 43 (3), pp. 281-309.
- Marginson, S. and E. Sawir (2003), *University Strategies in the Global Environment: A Comparison of Universitas Indonesia and the Australian National University*, MCRIE Working Paper 1, Monash Centre for Research in International Education, Monash University.
- Martin, P. (2003), "Highly Skilled Asian Workers in the United States", *Migration and the Labour Market in Asia: Recent Trends and Policies*, OECD, Paris, pp. 65-70.
- Mazzarol, T., G. Soutar, D. Smart, and S. Choo (2001), *Perceptions, Information and Choice: Understanding how Chinese Students Select a Country for Overseas Study*, Australian Education International, Commonwealth of Australia, Canberra, www.dest.gov.au
- McBurnie, G. (2000), "Pursuing Internationalization as a Means to Advance the Academic Mission of the University: An Australian Case Study", *Higher Education in Europe*, 25/1, pp. 63-73.
- McBurnie, G. (2002a), "Transnational Education, Quality and the Public Good. Case Studies from South-East Asia", in S. Uvalic-Trumbic (ed.), *Globalization and the Market in Higher Education. Quality, Accreditation and Qualifications*, UNESCO, Paris, pp. 159-170.
- McBurnie, G. (2002b), "International Branch Campuses: Australian Case Studies", *International Higher Education*, 29, fall, pp. 4-5.
- McBurnie, G. and Pollock, A. (1998), "Transnational Education: An Australian Example", *International Higher Education*, 10, winter, pp. 12-14 (www.bc.edu/bc_org/avp/soe/cihe).
- McBurnie, G. and Pollock, A. (2000), "Opportunity and Risk in Transnational Education—Issues in Planning for International Campus Development: An Australian Perspective", *Higher Education in Europe*, 25/3, pp. 333-343.

- McBurnie, G. and C. Ziguras (2001), "The Regulation of Transnational Higher Education in Southeast Asia: Case Studies of Hong Kong, Malaysia and Australia", *Higher Education*, 42/1, pp. 85-105.
- MCEETYA (Ministerial Council on Employment, Education Training and Youth Affairs) (2000), *National Protocols for Higher Education Approval Processes*, Department of Education Training and Youth Affairs, Canberra (www.detya.gov.au/highered/mceetya_cop.htm)
- MEXT (Ministry of Education, Culture, Sports, Science and Technology, Japan) (2001), *Outline of the Student Exchange System in Japan* (www.mext.go.jp/english/news/2001/05/010501.htm).
- NCN (New China Newsagency) (2003), "Regulation of the People's Republic of China on Chinese-Foreign Cooperation in the Running of Schools", 24 March.
- New Zealand, Ministry of Education (2002a), *Developing Export Education—The Export Education Industry Development Fund and Levy. Discussion Document*, Ministry of Education, New Zealand, Wellington.
- New Zealand, Ministry of Education (2002b), *International Education and New Zealand: Market overview*, New Zealand Government, Wellington.
- Nguyen, N.-N. (2002), *Trends in the Education Sector from 1993-98*, World Bank Policy Research Working Paper 2891, Washington.
- OBHE UK (Observatory on Borderless Higher Education) (2002), "International Branch Campuses: Scale and significance", *Briefing Note*, No. 5, June.
- Olsen, A. (2002), *E-learning in Asia: Supply and Demand*, Report for the Observatory on Borderless Higher Education, London.
- OECD (2000), *Korea and the Knowledge-based Economy: Making the Transition*, OECD, Paris.
- OECD (2002a), *Mobilising Human Resources for Innovation*, OECD, Paris.
- OECD (2002b), *Education at a Glance – OECD Indicators*, OECD, Paris.
- OECD (2002c), *OECD in Figures: Statistics on the Member Countries*, OECD, Paris.
- OECD (2002d), *International Mobility of the Highly Skilled*, OECD, Paris.
- OECD (2002e), *China in the World Economy*, OECD, Paris.
- OECD (2002f), *Education Policy Analysis, 2002 Edition*, OECD, Paris.
- OECD (2003), *Korea country report on the ICT policy environment*, OECD ICT database, OECD, Paris.
- OECD/TD (2002), "Service Providers on the Move: A Closer Look at Labour Mobility and the GATS", Report of the Working Party of the Trade Committee, OECD, Paris.
- Pimpa, N. (2003), "The Influence of Family on Thai Students' Choice of International Education", *The International Journal of Educational Management*, 17 (5), pp. 211-219.
- Postiglione, G. (2001), "Globalization and Professional Autonomy: The Academy in Hong Kong, Shanghai and Beijing", *Education and Society*, 19 (1), pp. 23-43
- Postiglione, G. (2002), "Chinese Higher Education for the Twenty-first Century: Expansion, Consolidation, and Globalization", in D. Chapman and A. Austin (eds.), *Higher Education in the Developing World: Changing Contexts and Institutional Responses*, Greenwood Press, Westport, pp. 149-166.
- Rudner, M. (1997), "International Trade in Higher Education Services in the Asia Pacific Region. The ASEAN Experience and the Role of APEC", *World Competition*, September, pp. 87-115.
- Sakamoto, T. (2001), "Trends and Issues in E-learning in Japan", Paper to the 7th OECD/Japan Seminar on E-learning in Post-Secondary Education, Tokyo, 5-6 June.
- Saowapon, C., T. Laohajaratsaeng, R. Thammajinda and S. Singharajwarapan (2001), "Education Reform and E-learning in Thailand", Paper to the 7th OECD/Japan Seminar on E-learning in Post-Secondary Education, Tokyo, 5-6 June.
- Singapore, Department of Statistics (2000), "Educational Upgrading through External Degree Programmes, 1998", *Statistics Singapore Newsletter*, January.
- Singapore, Department of Statistics (2001), "Educational Upgrading through External Degree Programmes, 1999", *Statistics Singapore Newsletter*, January.
- Singapore, Ministry of Education (2000), *Information Notes: Registration of Distance Learning Programmes*, Private Schools Section, Ministry of Education, Singapore.

- Skeldon, R. (2003), "Introduction", *Migration and the Labour Market in Asia: Recent Trends and Policies*, OECD, Paris, pp. 9-25.
- Smart, D., S. Volet and G. Ang (2000), *Fostering Social Cohesion in Universities: Bridging the Cultural Divide*, Australian Education International, Department of Education, Training and Youth Affairs, Canberra.
- Soekartawi, A. Haryono and F. Librero (2002), "Greater Learning Opportunities through Distance Education: Experiences in Indonesia and the Philippines", *Journal of Southeast Asian Education*, 3 (2), pp. 283-320.
- Stevens, R. (2003), "The Doha Round Education Services Negotiations--An Update", presented at Forum on GATS and Tertiary Education, RMIT.
- Throsby, D. (1999), "Financing and Effects of Internationalisation in Higher Education: The Economic Costs and Benefits of International Student Flows", Centre for Educational Research and Innovation, OECD, Paris.
- Tremblay, K. (2002), "Student Mobility between and towards OECD Countries: A Comparative Analysis", *International Mobility of the Highly Skilled*, OECD, Paris, pp. 39-67.
- University, Melbourne (1999), Decisions of the Minister of Education and Culture of the Republic of Indonesia Number: 264/U/1999 Regarding Cooperation of Higher Education Institutions, 29 April.
- Uvalic-Trumbic, S. (ed.) (2002), *Globalization and the Market in Higher Education. Quality, Accreditation and Qualifications*, UNESCO Publishing/Economica, Paris.
- World Bank (2003), World Bank Data and Statistics.
- WTO (2001a), *Communication from Australia: Negotiating Proposal for Education Services (S/CSS/W/110)*, World Trade Organization, Geneva.
- WTO (2001b), *Communication from New Zealand: Negotiating Proposal for Education Services (S/CSS/W/93)*, World Trade Organization, Geneva.
- WTO (2002), *Communication from Japan: Negotiating Proposal on Education Services*, World Trade Organization, Geneva.
- Xiamoing, Z. and Haitao, X. (2000), "Internationalisation: A Challenge for China's Higher Education", *Current Issues in Chinese Higher Education*, OECD, Paris, pp. 101-113.
- Yamazawa, I. (ed) (2000), *Asia Pacific Economic Cooperation (APEC). Challenges and Tasks for the Twenty-first Century*, Routledge, London.
- Young, E. and J. Cribbin (1999), "Servicing the Service Economy: Lifelong Learning in Human Capital Development in Hong Kong", Presented at World Services Congress, Atlanta, November 1-3.
- Zainal-Abidin, M. (2000), "APEC's Relationship with its Sub-regional Trading Arrangements", in I. Yamazawa (ed.), *Asia Pacific Economic Cooperation (APEC). Challenges and Tasks for the Twenty-first Century*, Routledge, London, pp. 117-153.
- Ziguras, C. (2003), "The Impact of the GATS on Transnational Tertiary Education: Comparing Experiences of New Zealand, Australia, Singapore and Malaysia", *Australian Educational Researcher*, 30 (3).