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TERRITORIAL DEVELOPMENT POLICY COMMITTEE**

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**METROPOLITAN COMPETITIVENESS AND GOVERNANCE:
THE CASE OF BUSAN, KOREA**

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CHAPTER 1. TRENDS AND CAPACITIES

1. Busan is a key case of urban development within one of the fastest-growing countries of the OECD area (Korea) and fastest-urbanising regions of the world (Asia). Asia is already home to nine cities over ten million inhabitants and forecasts suggest that by 2015, over 80% of Asia's economic growth will stem from its urban areas (ADB, 2001). Busan's population of 3.75 million inhabitants makes it Korea's second largest city after the capital Seoul. During Korea's swift economic takeoff phase, Busan soared as a leading manufacturing centre and powerful driver of national growth with competitive export-oriented industries. The city owes its rapid growth to its port, which became the third largest container port in the world in 2002. Meanwhile, Busan is struggling to overcome challenges of economic transition in an already relatively globalised world. Still, Busan is endowed with strategic advantages that could help it grow into a solid economic and logistics hub in Northeast Asia. It holds resources that have remained underexploited but could feed into upgraded policies to enhance regional competitiveness. Therefore, this chapter focuses on: (i) comparing regional performances of Busan not only with those of other large cities in Korea, but also with those of other OECD metropolitan regions; and in view of such indicators, (ii) identifying Busan's regional potential that could be further explored to meet the challenges of economic shift.

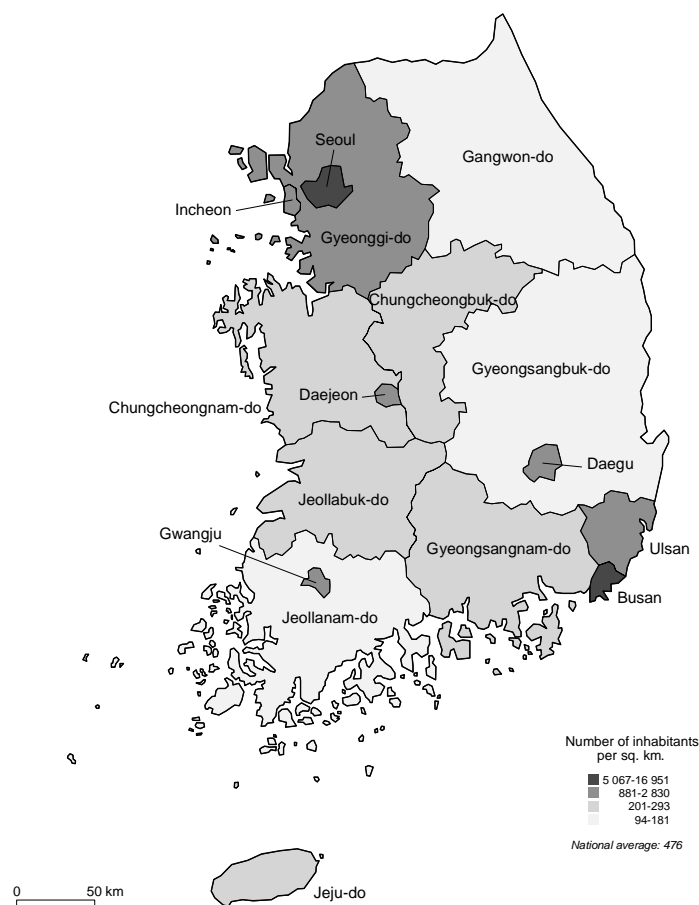
Box 1.1. Profile of Busan

Busan has experienced a rapid demographic expansion, with its population doubling over thirty years. Population density is one of the highest among OECD regions over two million inhabitants (over 5 000 inhabitants per km²). This is because Busan's expansion remains limited by heavy geographical constraints and strict national land use regulation. Being located on the southeast coast of Korea, at the opposite diagonal of Seoul between Ulsan Metropolitan City and Gyeongnam Province (Figure 1.1), Busan confronts the sea on the one side and the mountains on the other.

When considering its functional area¹, a commuting scheme emerges clearly around Busan. The most significant commuting flows occur between Busan and Gimhae (66 327 commuters, 36.1%), Yangsan (56 859 commuters, 31%) and Ulsan (20 491 commuters, 11.2%) (Table 1.1). With relatively modest figures of commuting flows, it seems that the administrative boundaries of Busan fit relatively well with the functional region.

The sharp demographic growth of Busan was duly backed up by administrative endorsement, as Busan is the first city that was given a metropolitan status in Korea (1963), *i.e.* withdrawn from the jurisdiction of its original province and treated as equal to a province². Following the two-tier institutional framework of local governments in Korea, Busan Metropolitan City is in turn composed of 15 autonomous districts of variable size and population (*jachi-gu*, called *gu* for convenience): Buk-gu, Sasang-gu, Saha-gu, Gangseo-gu, Jung-gu, Dong-gu, Seo-gu, Yeongdo-gu, Busanjin-gu, Yeonje-gu, Nam-gu, Suyeong-gu, Geumjeong-gu, Dongrae-gu, Haeundae-gu, and 1 rural unit of government (called *gun*): Gijang-gun (Figure 1.2).

However, population has registered very sluggish growth especially over the 1990s and even experienced a slight decline in 2000 (Table 1.2), causing concern to city government over the region's economic growth prospects. Population stagnation was mainly attributed to movements towards neighbouring areas such as Yangsan and Gimhae in Gyeongnam Province.

Figure 1.1. Busan, second largest city in Korea

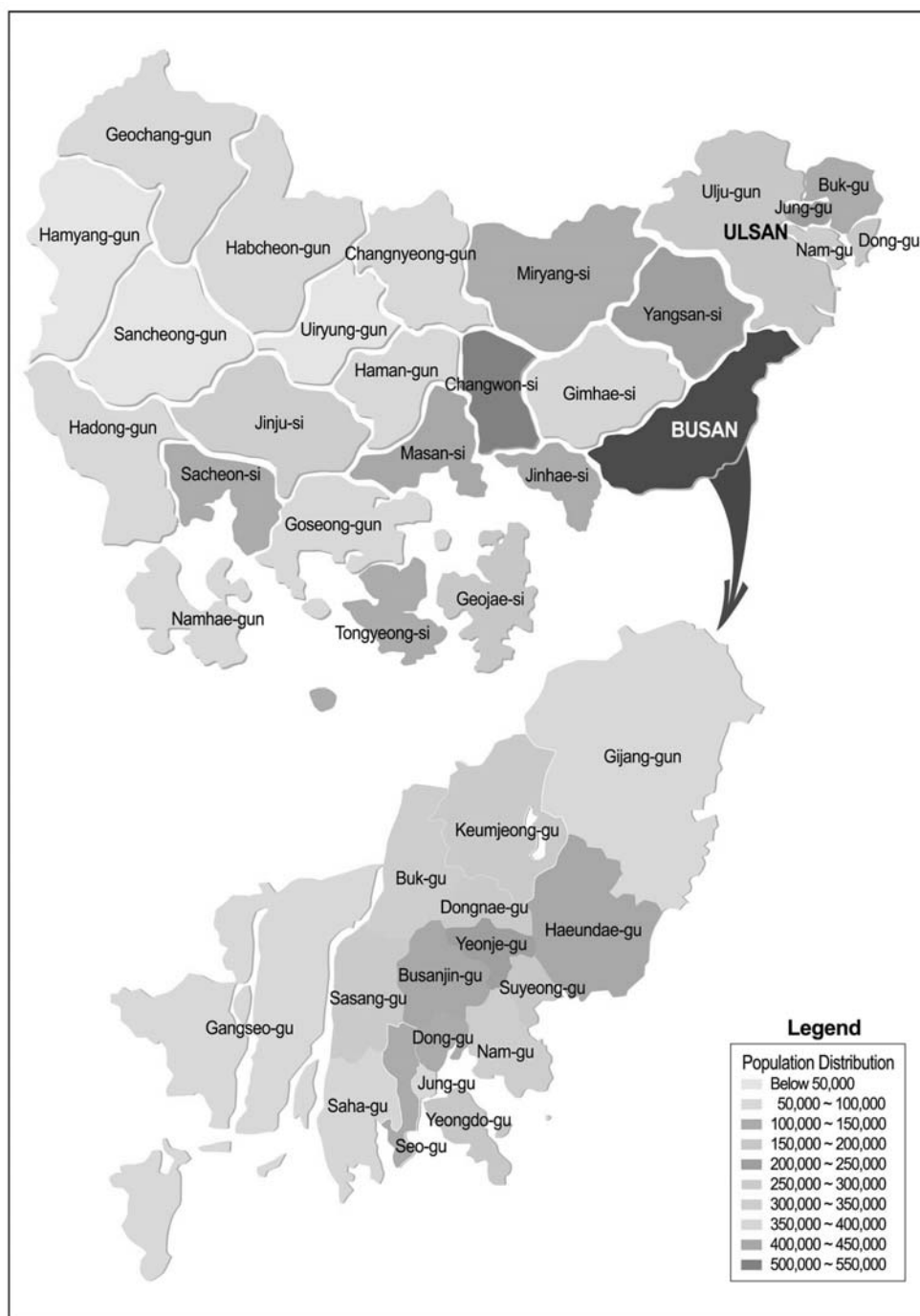
Source : OECD Territorial Database

Table 1.1. Commuting flows in Busan, Ulsan and Gyeongnam, 2000

Residence	Destination	Busan	Ulsan	TOTAL	Changwon	Masan	Gyeongnam			Geoje	Yangsan
							Jinhae	Gimhae	Miryang		
Busan			15 328	101 836	6 907	3 430	4 506	41 651	2 230	626	38 987
Ulsan		5 163		3 238	146	165	21	190	94	n.a.	2 514
	TOTAL	51 592	6 482		54 028	42 482	4 004	7 738	1 726	3 588	1 438
	Changwon	3 114	239	39 611		27 577	2 179	3 898	523	280	226
	Masan	1 931	205	50 305	37 113		1 155	1 628	314	193	102
Gyeongnam	Jinhae	1 902	20	14 429	7 766	5 803		304	42	71	12
	Gimhae	24 676	331	10 674	5 844	2 371	385		513	21	965
	Miryang	1 273	76	1 848	556	275	9	557		28	83
	Geoje	41	n.a.	1 188	36	34	43	11	n.a.		n.a.
	Yangsan	17 870	5 521	1 508	114	161	68	926	131	n.a.	

Source: BDI, UDI, GDI (2002).

Figure 1.2. Administrative map of Busan Metropolitan City



Source: Busan Metropolitan City.

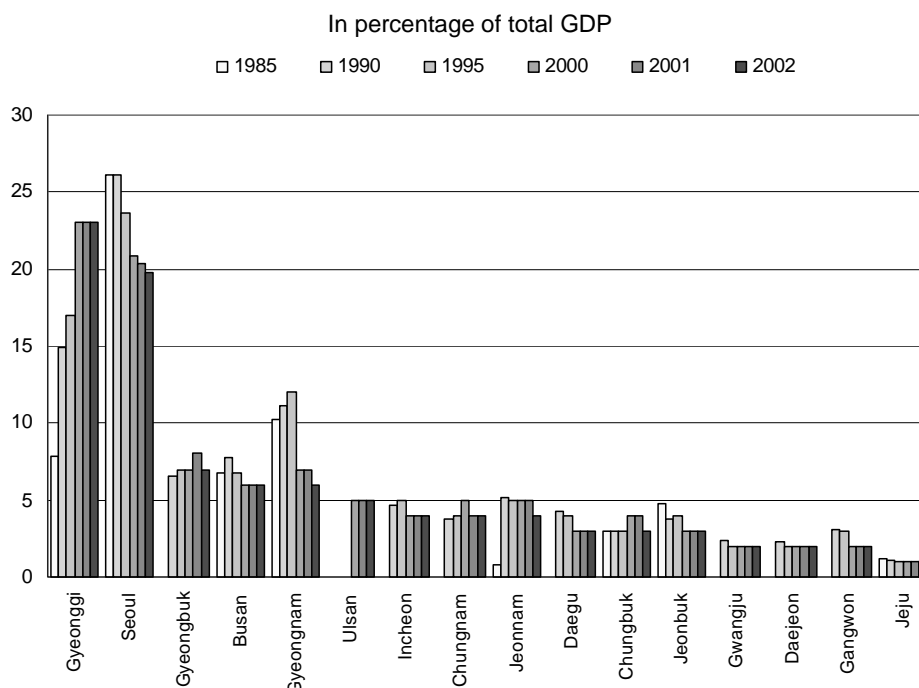
Table 1.2. Population trends in Busan, 1970-2002

	Population	Growth rate (%)
1970	1 876 391	
1975	2 450 125	0.31
1980	3 156 931	0.29
1985	3 512 113	0.11
1990	3 795 892	0.08
1995	3 809 618	0.00
2000	3 655 437	-0.04
2002	3 747 369	0.03

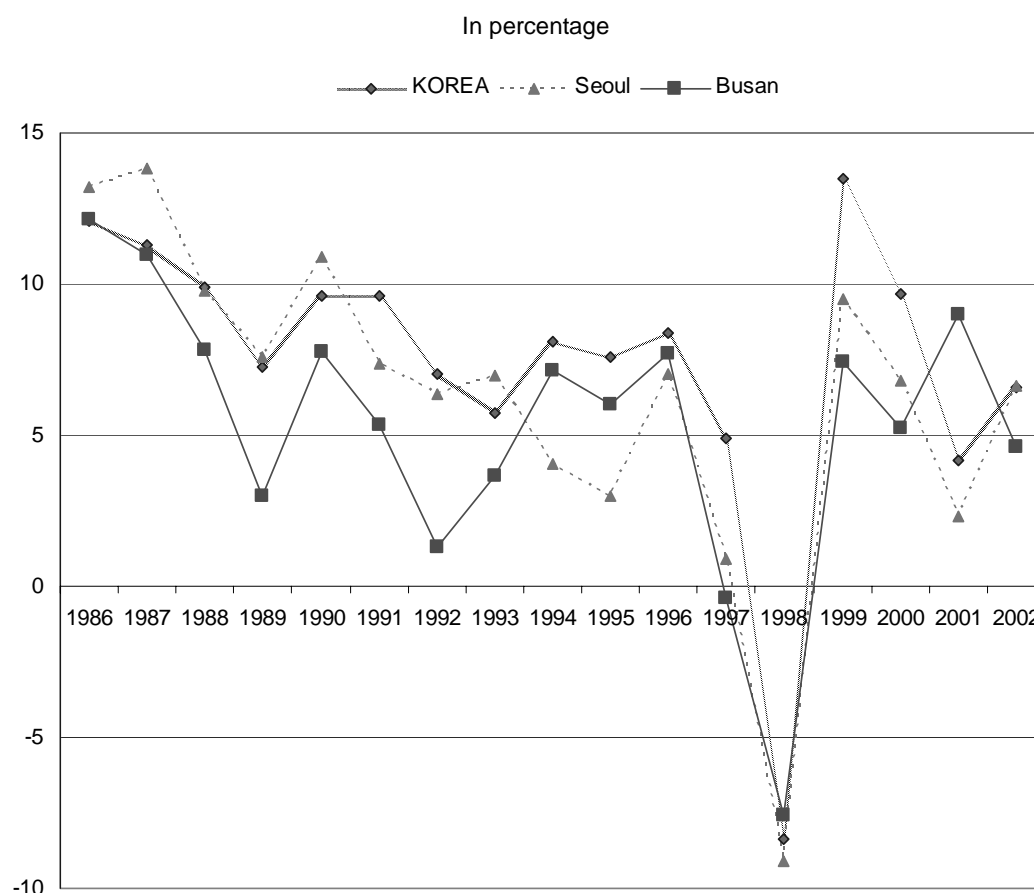
Source: National Statistical Office.

Comparing regional performances

2. Besides being the second city of Korea in terms of population, Busan is also the second largest urban contributor to national GDP after the capital Seoul (Figure 1.3). Even though its share of national GDP has declined from 8% in 1990 to 6% in 2002, this is not an isolated phenomenon since other metropolitan cities such as Incheon, Daegu, Gwangju or Daejeon also lost ground in favour of Gyeonggi Province, which profited from Seoul's sprawl. After having been one of the major poles of national growth during the 1960s and 1970s, the growth of Busan as well as that of other large cities was intentionally placed under strict control of the central government during the 1980s in order to ensure balanced development across the national territory. Over the late 1980s, Busan has suffered from sluggish economic development that continued beyond the 1990s. Its GDP growth rate has thus traditionally remained below those of Seoul and Korea, as a whole. But in the wake of 2001, Busan's rate of growth outpaced both (Figure 1.4). However, this exceptional performance was likely the product of heavy public infrastructure investment in 2001 in preparation for the 2002 Asian Games and other events. These investments boosted production in transportation and warehousing industries (+23.5% in 2001), manufacturing industries (+13.0%) and construction industries (+10.3%), but in 2002 Busan's GDP growth rate slowed down to 4.6%, putting it below Seoul's and Korea's growth rate.

Figure 1.3. Distribution of GDP by city/province in Korea, 1985-2002

Source: National Statistical Office.

Figure 1.4. GDP growth rate in Busan Seoul and Korea, 1986-2002

Note: calculated on 1995 constant prices.

Source: National Statistical Office.

3. On an international scale, Busan lags sensibly behind most of the selected OECD metropolitan regions of similar population in terms of GDP per capita (Table 1.3). This largely reflects national performances. Korea has a per capita income level at 67% of the OECD average, ranking in the bottom quartile of OECD countries along with Mexico and the Central European countries. In order to analyse more in depth regional economic performances, the OECD has developed a pilot exercise of cross-country comparison to examine what factors explain a given region's gap in GDP per capita with other OECD metropolitan regions (Annex). This exercise focuses on reviewing the different components of economic growth in a panel of 65 metropolitan regions over two million inhabitants in the OECD³ (27 of which are located in Europe, 23 in the United States, 12 in Asia and 3 in Canada). The results of the comparison aim at drawing a general framework for analysis. Following this methodology, Busan's GDP per capita is 65.2% below the average GDP per capita of the selected 65 metropolitan regions. Labour productivity explains 89% of Busan's gap with the average, while the demographic effect (activity rate) accounts for only 11% and the effect of labour utilisation (employment rate) remains marginal (Table 1.4).

Table 1.3. GDP per capita in 65 selected OECD metropolitan regions, 2000

Country	Metropolitan region	Population 2000	Real GDP per capita (USD PPP)	National GDP per capita (USD PPP)	Ratio regional/ national
Japan	Tokyo	12 064 101	42 694	26 011	1.64
France	Paris Ile de France	11 001 900	38 951	24 835	1.57
Korea	Seoul	9 853 972	14 460	15 186	0.95
USA	Los Angeles	9 344 086	40 031	35 179	1.14
USA	New York	9 098 339	48 562	35 179	1.38
Japan	Osaka	8 805 081	27 134	26 011	1.04
Japan	Kanagawa	8 489 974	21 227	26 011	0.82
USA	Chicago	8 117 052	41 285	35 179	1.17
Korea	Gyeonggi	7 637 942	16 365	15 186	1.08
UK	Greater London	7 172 036	36 719	25 107	1.46
Japan	Aichi	7 043 300	28 007	26 011	1.08
Japan	Saitama	6 938 006	17 272	26 011	0.66
Germany	Ruhrgebiet	6 766 749	23 591	26 139	0.90
Germany	Rheinland (Düsseldorf & Köln)	6 606 248	31 227	26 139	1.19
Japan	Chiba	5 926 285	18 614	26 011	0.72
Spain	Comunidad de Madrid	5 150 500	26 858	20 195	1.33
Germany	Region Berlin	5 085 171	21 432	26 139	0.82
Japan	Fukuoka	5 015 699	20 308	26 011	0.78
USA	Philadelphia	4 946 433	36 837	35 179	1.05
USA	Washington	4 826 619	44 750	35 179	1.27
Canada	Toronto	4 682 897	33 581	28 923	0.97
Spain	Barcelona	4 667 200	24 146	20 195	1.20
USA	Detroit	4 381 236	36 376	35 179	1.03
USA	Houston	4 119 040	42 838	35 179	1.22
USA	Atlanta	4 036 630	41 478	35 179	1.18
Germany	Stuttgart	3 935 354	33 044	26 319	1.26
Italy	Rome	3 849 500	30 477	25 095	1.21
Italy	Milan	3 773 900	40 081	25 095	1.60
Greece	Attiki-Athens	3 760 900	17 444	15 885	1.10
Germany	Darmstadt	3 737 589	36 629	26 139	1.40
Korea	Busan	3 655 437	10 854	15 186	0.71
USA	Dallas	3 466 201	46 584	35 179	1.32
Canada	Montreal	3 426 350	26 629	28 923	0.77
Netherlands	Zuid-Holland (Rotterdam)	3 409 200	28 284	27 316	1.04
USA	Boston	3 319 444	73 470	35 179	2.09
USA	Phoenix	3 207 093	35 400	35 179	1.01
USA	Minneapolis-St Paul	3 188 632	38 587	35 179	1.10
Italy	Naples	3 099 900	15 860	25 095	0.63
Germany	Region Hamburg	3 079 032	34 449	26 139	1.32
Germany	Region München-Ingolstadt	2 882 181	43 197	26 139	1.65
Hungary	Budapest	2 838 000	19 288	12 204	1.58
USA	San Diego	2 716 820	39 318	35 179	1.12
Germany	Karlsruhe	2 684 421	30 921	26 139	1.18

Table 1.3. GDP per capita in 65 selected OECD metropolitan regions, 2000 *(continued)*

France	Nord	2 563 400	21 077	24 835	0.85
USA	St-Louis	2 547 700	35 318	35 179	1.00
Netherlands	Noord-Holland (Amsterdam)	2 526 500	31 830	27 316	1.17
Korea	Incheon	2 466 338	12 146	15 186	0.80
Korea	Daegu	2 473 990	9 343	15 186	0.62
USA	Baltimore	2 493 611	38 242	35 179	1.09
UK	Greater Manchester	2 482 352	22 140	25 107	0.88
USA	Seattle	2 366 406	50 241	35 179	1.43
Netherlands	Noord-Brabant	2 365 600	26 895	27 316	0.98
USA	Tampa-St-Petersburg	2 348 178	35 198	35 179	1.00
USA	Pittsburgh	2 290 409	35 378	35 179	1.01
Italy	Turin	2 214 900	31 125	25 095	1.24
USA	Miami	2 207 391	32 695	35 179	0.93
USA	Cleveland	2 204 979	37 479	35 179	1.07
Spain	Valencia	2 158 100	20 188	20 195	1.00
Germany	Freiburg	2 137 621	25 890	26 139	0.99
USA	Denver	2 080 106	44 113	35 179	1.25
Germany	Detmold	2 080 106	25 997	26 139	0.99
Germany	Rheinessen-Pfalz	2 003 242	25 903	26 139	0.99
Canada	Vancouver	1 986 965	28 545	28 923	0.82
USA	Portland-Vancouver	1 847 738	38 279	35 179	1.09
USA	San Francisco	1 689 490	64 836	35 179	1.84

Note: GDP per capita figures were collected from national statistical offices. Year 2000 was chosen because more recent data were unavailable for some of the countries concerned. These figures should be interpreted with all reserve considering the different methodologies used by OECD Member countries to measure sub-national GDP as well as the impact of fluctuating exchange rates.

Source: OECD Territorial Database.

Table 1.4. Explanatory factors of differences in GDP per capita

Country	Metropolitan Region	% differences in:				% of difference in GDP per capita due to:		
		GDP per capita	Labour productivity	Employment rate	Activity rate	Labour productivity	Employment rate	Activity rate
Canada	Montreal	-14.7%	-21.4%	-0.7%	4.5%	71%	2%	26%
Canada	Toronto	7.5%	-9.8%	0.8%	8.8%	37%	3%	60%
Canada	Vancouver	-8.6%	-21.9%	-0.5%	8.5%	60%	1%	39%
France	Ile de France	24.7%	24.0%	-1.9%	1.3%	82%	8%	10%
France	Nord	-32.5%	-18.0%	-6.7%	-5.5%	50%	19%	31%
Germany	Darmstadt	17.3%	38.3%	-1.5%	-6.7%	66%	3%	30%
Germany	Detmold	-16.8%	10.6%	-4.0%	-10.3%	26%	11%	62%
Germany	Freiburg	-17.1%	14.5%	-1.8%	-12.7%	30%	4%	66%
Germany	Karlsruhe	-1.0%	25.2%	-1.7%	-9.4%	49%	4%	47%
Germany	Region Berlin	-31.4%	-4.6%	-12.9%	-8.0%	12%	39%	48%
Germany	Region Hamburg	10.3%	39.2%	-3.8%	-8.4%	59%	7%	34%
Germany	Region München-Ingolstadt	38.3%	51.4%	0.8%	-4.6%	79%	2%	19%
Germany	Rheinessen-Pfalz	-17.1%	24.3%	-4.8%	-14.4%	35%	8%	57%
Germany	Rheinland	0.0%	30.2%	-4.3%	-9.5%	50%	9%	41%
Germany	Ruhrgebiet	-24.5%	14.6%	-8.2%	-13.4%	25%	17%	59%
Germany	Stuttgart	5.8%	26.7%	-0.3%	-7.9%	57%	1%	43%
Greece	Attiki-Athens	-44.1%	-39.0%	-5.5%	-1.3%	85%	10%	5%

Table 1.4. Explanatory factors of differences in GDP per capita (continued)

Hungary	Budapest	-38.2%	-33.2%	1.5%	-4.4%	78%	3%	18%
Italy	Milan	28.3%	37.3%	1.4%	-3.8%	77%	4%	20%
Italy	Naples	-49.2%	-8.6%	-21.1%	-13.6%	13%	38%	49%
Italy	Rome	-2.4%	19.5%	-5.2%	-6.5%	47%	15%	38%
Italy	Turin	-0.3%	9.7%	-1.7%	-3.6%	49%	10%	41%
Japan	Aichi	-10.3%	-22.7%	2.7%	6.1%	63%	7%	29%
Japan	Chiba	-40.4%	-46.4%	2.1%	4.3%	85%	3%	12%
Japan	Fukuoka	-35.0%	-36.6%	0.9%	0.8%	95%	2%	3%
Japan	Kanagawa	-32.0%	-38.6%	1.9%	4.1%	83%	3%	14%
Japan	Osaka	-13.1%	-16.5%	-0.3%	2.1%	80%	1%	19%
Japan	Saitama	-44.7%	-50.9%	2.0%	5.0%	86%	3%	12%
Japan	Tokyo	36.7%	20.9%	1.9%	5.2%	61%	7%	33%
Korea	Busan	-65.2%	-60.9%	-0.1%	-5.3%	89%	0%	11%
Korea	Daegu	-70.1%	-67.0%	1.9%	-5.4%	89%	2%	10%
Korea	Gyeonggi	-47.6%	-46.3%	2.9%	-2.6%	88%	4%	8%
Korea	Incheon	-61.1%	-57.4%	1.5%	-4.9%	87%	2%	11%
Korea	Seoul	-53.7%	-50.5%	1.7%	-4.0%	87%	2%	11%
Netherlands	Noord-Brabant	-13.9%	-22.2%	4.6%	2.7%	71%	14%	15%
Netherlands	Noord-Holland	1.9%	-7.6%	3.9%	2.9%	45%	23%	32%
Netherlands	Zuid-Holland	-9.4%	-17.8%	4.0%	2.7%	67%	14%	19%
Spain	Barcelona	-22.7%	-8.9%	-2.7%	-6.1%	36%	11%	52%
Spain	Comunidad de Madrid	-14.0%	-0.3%	-3.0%	-5.3%	2%	22%	76%
Spain	Valencia	-35.4%	-24.9%	-5.6%	-4.1%	66%	14%	20%
UK	Greater Manchester	-29.1%	-30.1%	0.8%	0.3%	96%	2%	2%
UK	London	17.6%	14.4%	-0.3%	1.5%	81%	2%	18%
US	Atlanta	32.8%	10.5%	2.5%	8.2%	35%	9%	55%
US	Baltimore	22.4%	8.1%	2.1%	5.2%	38%	11%	50%
US	Boston	135.2%	100.1%	3.0%	6.7%	81%	4%	15%
US	Chicago	32.2%	21.7%	0.8%	3.7%	70%	3%	26%
US	Cleveland	20.0%	11.1%	1.4%	3.1%	58%	8%	34%
US	Dallas	49.2%	22.5%	0.8%	10.0%	51%	2%	47%
US	Denver	41.2%	21.1%	1.7%	7.0%	55%	5%	39%
US	Detroit	16.5%	5.2%	1.3%	4.4%	33%	9%	57%
US	Houston	37.2%	20.5%	2.2%	5.4%	59%	8%	34%
US	Los Angeles	28.2%	16.7%	0.8%	4.3%	62%	4%	34%
US	Miami	4.7%	3.5%	-1.3%	1.2%	47%	18%	35%
US	Minneapolis-St Paul	23.6%	3.7%	3.2%	7.3%	17%	16%	67%
US	New York	55.5%	65.0%	0.2%	-2.9%	89%	0%	11%
US	Philadelphia	17.9%	8.0%	2.6%	3.0%	46%	17%	37%
US	Phoenix	13.3%	4.4%	1.4%	3.4%	34%	12%	54%
US	Pittsburgh	13.3%	4.9%	2.5%	2.5%	38%	22%	40%
US	Portland-Vancouver	22.6%	3.4%	-0.6%	9.3%	16%	3%	82%
US	San Diego	25.9%	10.9%	3.4%	4.6%	45%	16%	39%
US	San Francisco	107.6%	70.0%	2.2%	9.3%	73%	3%	24%
US	Seattle	60.9%	34.5%	0.5%	9.1%	62%	1%	36%
US	St-Louis	13.1%	0.7%	1.8%	4.9%	6%	16%	78%
US	Tampa-St-Petersburg	12.7%	-1.5%	2.3%	5.7%	10%	16%	73%
US	Washington	43.3%	18.5%	3.2%	8.2%	47%	9%	43%

Source: OECD Territorial Database.

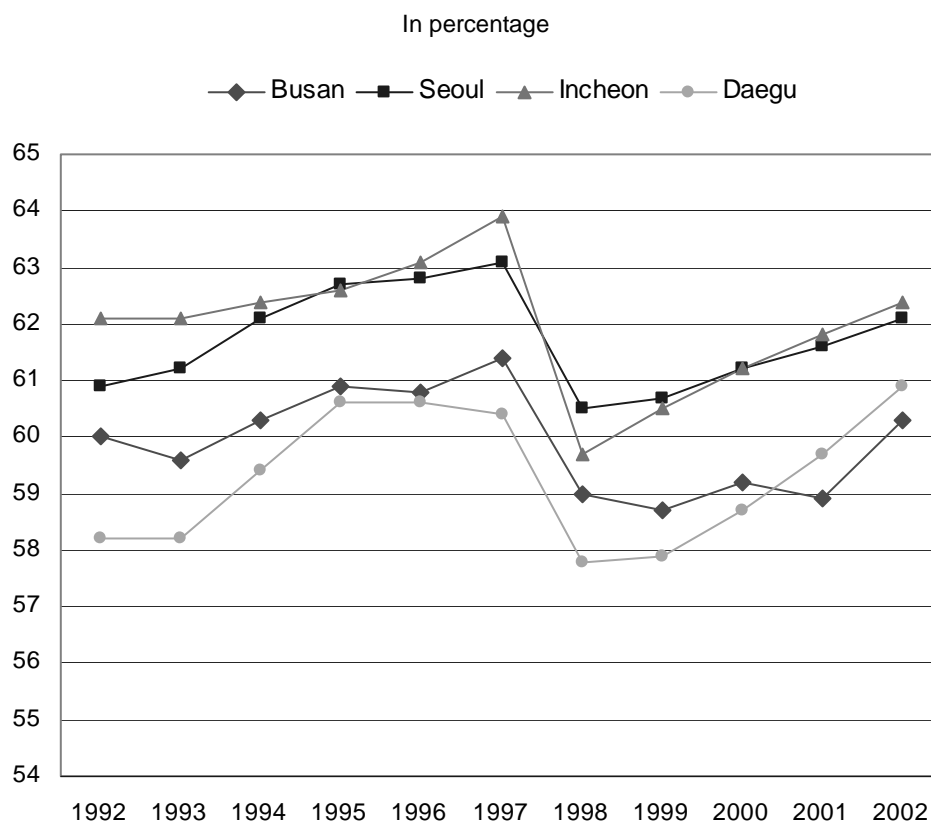
Productivity as a brake to growth

4. While labour productivity accounts for the largest share of GDP per capita differences in all 65 metropolitan regions, Busan appears more vulnerable to the effect of labour productivity than most other regions (Table A.1). As shown above (Table 1.4), low labour productivity explains as much as 89% of Busan's gap with the average GDP per capita of the selected 65 metropolitan regions. Busan's low labour productivity confirms a national pattern, since Korea as a whole has traditionally recorded low labour productivity compared with other OECD countries (OECD, 2003). Labour input relative to total population in Korea stands 21% above the OECD average. Total factor productivity, including both capital and labour, falls behind many countries, especially neighbouring Asian countries outside the OECD area. This is confirmed by a recent study of the Bank of Korea showing that Korea's productivity reaches only 60% of Singapore and Hong Kong's and about 66% of Japan's productivity (Bank of Korea, 2004).

5. Low labour productivity may result from two different causes: (i) specialisation in low-productivity industries (sectoral structure); (ii) a low level of complementary factors of production (capital stock, namely physical capital, skills, etc.). In the case of Busan, most research undertaken by local economists tends to support the hypothesis of sectoral structure. Such studies hold true but the influence of capital stock should not be overlooked. Comparison with other large OECD metropolitan regions actually shows that Busan stands 60% below the 65-metro average in terms of labour productivity. Among this 60% difference, only 14% is attributable to the sectoral structure of Busan while the remaining 46% is due to capital stock (Table A.2).

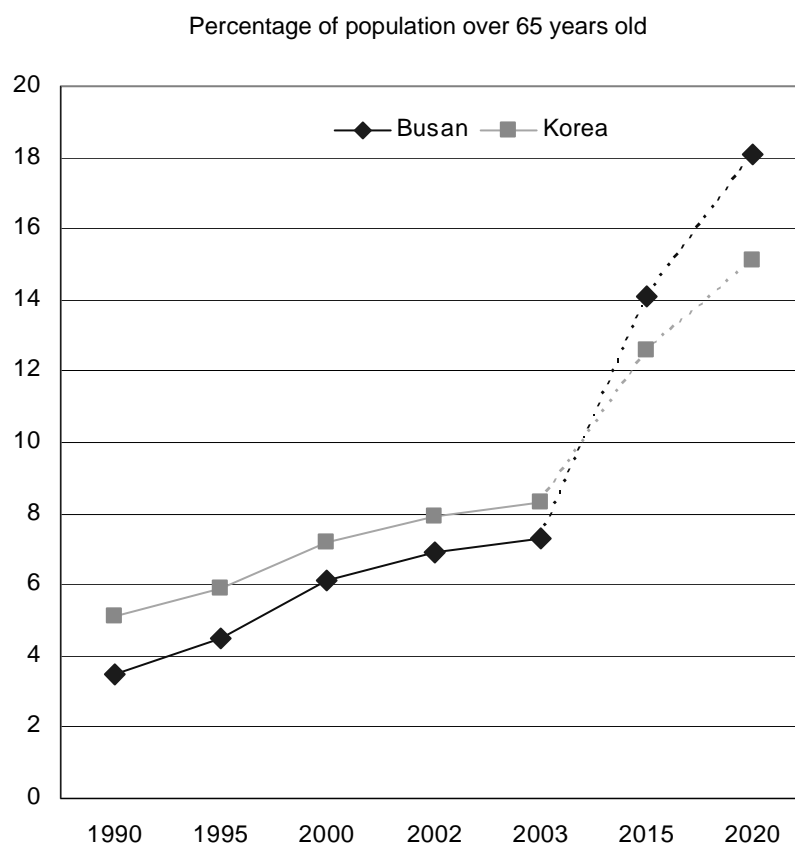
Unsteady activity rate

6. In terms of activity rate, Busan is found to rank 50th out of 65 metropolitan regions (Table A.3). When compared with other large cities in Korea, the recent evolution of the activity rate in Busan has caused some concern (Figure 1.6). Over the 1990s, the rate of economically active population over 15 years of age has always remained lower in Busan than in Seoul and Incheon and became even lower than in Daegu since 2001.

Figure 1.6. Evolution of activity rate in Busan and selected Korean cities, 1992-2003

Source: National Statistical Office.

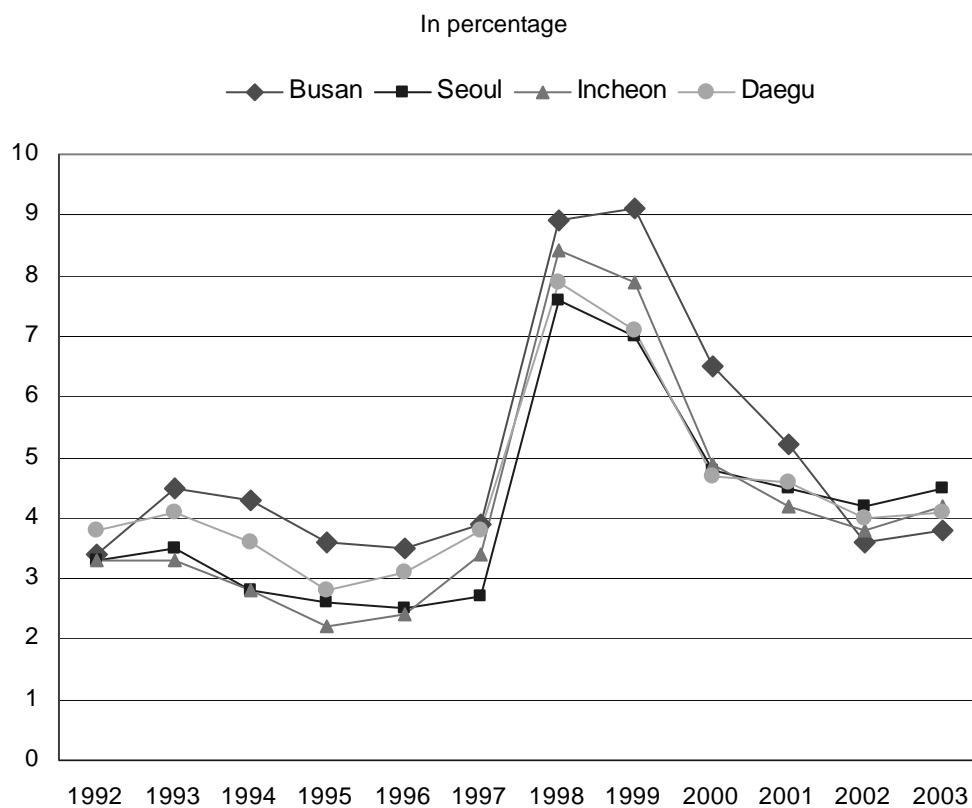
7. This trend reflects ongoing shifts on the Busan labour market. The share of younger economically active population (20-40 year old) has dropped from 55.2% in 1993 to 46.9% in 2000, remaining constantly below national average. Along with combined effects of the rise of average life expectancy (from 74.4 years in 1997 to an estimated 77.7 years in 2005) and outflows of the younger economically active population towards other regions and especially the capital area, Busan population is increasingly demonstrating ageing trends. Population ageing is also a broader national phenomenon, but it is forecast to accelerate dramatically in Busan, notably by 2015. Starting from that year, the share of population over 65 years old is anticipated to be even higher in Busan than in Korea (Figure 1.7).

Figure 1.7. Population ageing in Busan and Korea 1990-2020

Source: National Statistical Office.

Lower unemployment but precarious jobs

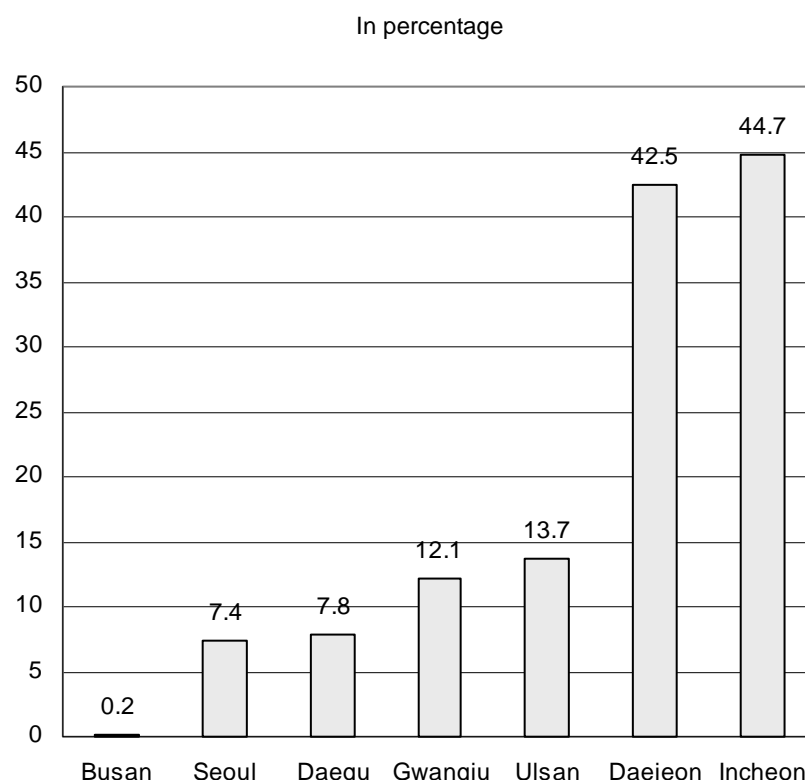
8. Busan seems relatively well-positioned in terms of employment rate, since it ranks 40th out of 65 regions (Table A.4). Busan has actually made considerable progress in this field. After peaking up at 9.1% with the highest unemployment rate in the whole country in 1999, Busan has caught up well with other major Korean cities since 2001 (Figure 1.8). However, the decrease in employment (measured in the number of currently employed people) was by far the largest in Busan (-5.5%) against -2.0% in Gwangju, -1.0% in Daegu, -0.6% in Seoul, -0.5% in Daejeon and -0.1% in Korea (Bank of Korea, Busan Branch, 2004). In addition, despite the decrease in unemployment figures in Busan, reality may offer a different picture because after the 1997 crisis, many firms shifted their employment towards temporary, non-permanent and flexible jobs (short-term contracts, more flexible and more precarious jobs). For example, non-permanent employment is estimated to account for about 33% of total employment in Busan and in Korea. Furthermore, unemployment may increase again in the future along with the transition of the Busan economy towards less labour-intensive industries, causing firms in this sector to go out of business.

Figure 1.8. Unemployment rate in Busan and selected Korean cities, 1992-2003

Source: National Statistical Office.

Exploring regional potential

9. In view of those three growth components (labour productivity, activity rate and employment rate), Busan is undergoing a structural shift and needs to explore further its regional potential. Until the mid-1970s, Busan was a prosperous centre of footwear, textile and traditional manufacturing industries that accounted for 25% of Korea's exports. This position as a leading industrial centre started to decline with sharper international competition in low-wage manufacturing industries. As shown previously, Busan was severely hit by the 1997 crisis that triggered off a strong upsurge of unemployment. Busan has gradually lost the advantages stemming from an export-oriented economy. Despite a buoyant rebound of exports at the national level recently (16% in volume terms in 2003), exports from Busan have been lagging far behind all other large Korean cities with a fairly weak 0.2% growth rate (Figure 1.9). Currently, the city accounts for only 3% of the nation's exports against 10.4% in 1990. Considering such indicators, Busan needs to adapt to changing trends on the international market by rapidly shifting its industrial mix towards higher value-added industries⁴.

Figure 1.9. Export growth in Busan and six large cities, 2003

Source: Bank of Korea, Busan Branch Office.

10. Busan actually faces a challenge similar to the one that many regions in the OECD area have experienced. These regions include Nord-Pas-de-Calais and Champagne-Ardenne in France (which specialised in textile), Pittsburgh in the US (metalworking and steel) or the East Midlands in the UK (textile, automobiles). All those manufacturing regions were hit hard by industrial restructuring and severe unemployment before succeeding in economic redeployment. In the case of Busan, a swift recovery put the city back on a more favourable stance at the end of the 1990s, but its economy remains fragile. The ongoing industrial restructuring shows that Busan still lacks strong high value-added industries and headquarter functions. Although Busan through its port has so far used its comparative advantages well to reap benefits from trade growth in Northeast Asia, potential threats are approaching in this field.

Challenges of industrial restructuring

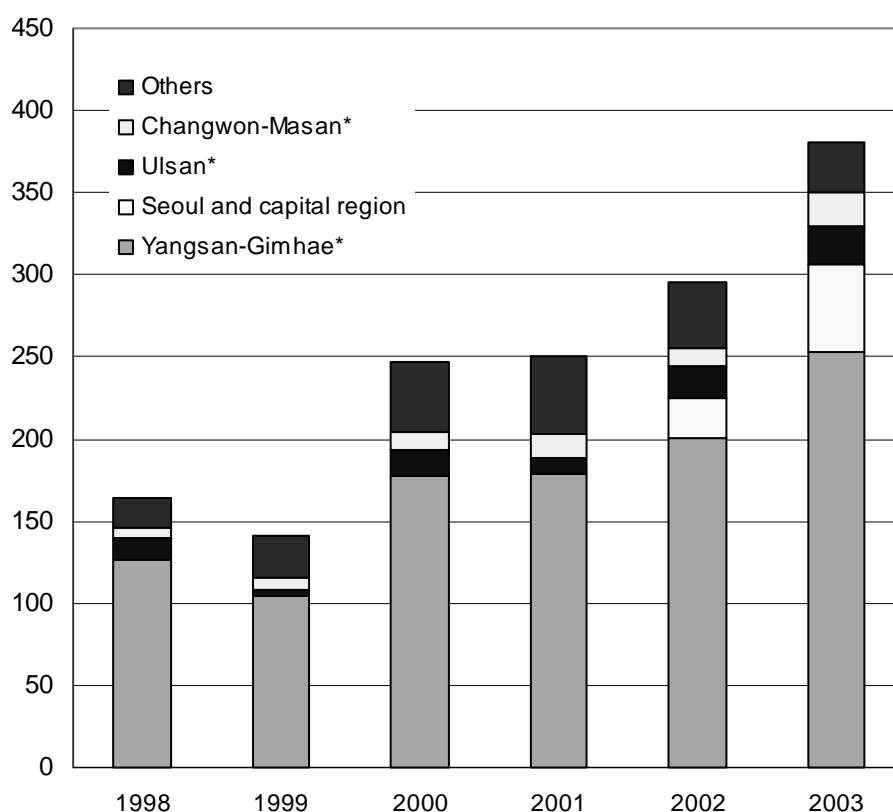
11. An industrial restructuring process is under way in Busan. Analysis of most data available corroborates this trend. A first indicator lies in the fact that firms are leaving Busan for neighbouring or more remote locations (Table 1.5). In 2003, 381 firms (3 573 jobs) left Busan, which represents a 28.7% increase compared with the 296 firms (2 981 jobs) that left Busan the previous year. In particular, manufacturing firms accounted for the first cause of business loss in 2003 with 54.3% of leaving firms and 61.9% of jobs taken out by them. Conversely, the number of new firms entering Busan has regularly increased (from 78 firms in 2000 to 261 firms in 2003), but their impact on job creation in Busan remained relatively faint because 97.3% of them were very small firms with less than 20 employees.

12. Yet a few signs offer more reassuring prospects for local economy in Busan. First of all, manufacturing firms leaving Busan are rather small in size. In 2003 for example, leaving manufacturing firms had an average of only 10.68 employees. In addition, relocation patterns show that firms are mostly relocating in neighbouring cities of Yangsan and Gimhae (66.5%) rather than more remote regions (Figure 1.10), even though Seoul and the capital region are starting to gain ground as well. In short, the number of firms that leave Busan has increased recently, but the impact in terms of job loss remains relatively small. Moreover, the relocating firms tend to stay within the functional economic area of Busan delineated by commuting flows, which reflects more the expansion of the Southeast economic region rather than a precipitous decline in the Busan economy.

Table 1.5. Evolution of firms leaving Busan, 1999-2003

By industry		1999	2000	2001	2002	2003		Growth rate 2002- 2003 (%)
							%	
Total	Firms	141	247	251	296	381	100.0	28.7
	Employees	2 342	2 996	1 953	2 981	3 573	100.0	19.9
Manufacturing	Firms	98	157	152	190	207	54.3	8.9
	Employees	1 513	1 633	1 388	2 020	2 211	61.9	9.5
Distribution and construction	Firms	1	20	14	67	125	32.8	86.6
	Employees	30	302	130	423	983	27.5	132.4
Transportation, storage and communication	Firms			8	6	9	2.4	50.0
	Employees			64	64	31	0.9	-51.6
Others	Firms	42	70	77	33	40	10.5	21.2
	Employees	796	1 061	371	474	348	9.7	-26.6

Source: Busan Development Institute.

Figure 1.10. Destination of firms leaving Busan, 1998-2003

Note: * belongs to the Southeast region (including Busan Metropolitan City, Ulsan Metropolitan City and Gyeongnam Province).

Source : Busan Development Institute.

13. Busan's restructuring process is also visible in the composition of firm bankruptcies. Manufacturing firms have represented the bulk of bankruptcies (347 firms over the first half of 2004). Among them, light industries such as textile, clothing, paper and printing industries, were hardest hit (Table 1.6). However, bankruptcy affected primarily very small firms with less than 20 employees, which accounted for 93.2% of bankrupt firms in 2003. This illustrates the lack of large leading firms in Busan, but also shows that the impact of bankrupt manufacturing firms on employment remained modest (less than 7 employees per manufacturing firm in 2003). At the same time, manufacturing firms still account for a sizeable share of both Busan and Korea GDP (Table 1.7). This may be essentially due to increased productivity in manufacturing industries, giving higher capacity to generate value-added with fewer jobs (Figure 1.11).

Table 1.6. Manufacturing firm bankruptcies by industry, 2002-2003

	2002				2003				Growth rate 2002-2003 (%)	
	Firms	%	Emp- loyees	%	Firms	%	Emp- loyees	%	Firms	Emp- loyees
TOTAL	199	100.0	1 589	100.0	236	100.0	1 477	100.0	18.6	-7.0
Food	5	2.5	29	1.8	6	2.5	24	1.6	20.0	-17.2
Textile and clothing	18	9.0	191	12.0	38	16.1	450	30.5	111.1	135.6
Wood and plywood	5	2.5	18	1.1	12	5.1	39	2.6	140.0	116.7
Paper and printing	3	1.5	67	4.2	11	4.7	37	2.5	266.7	-44.8
Chemicals and rubber	43	21.6	502	31.6	43	18.2	342	23.2	-	-31.9
Non-metal minerals	-	-	-	-	3	1.3	5	0.3	-	-
Primary metals	3	1.5	22	1.4	5	2.1	29	2.0	66.7	31.8
Machinery and assembled metals	71	35.7	437	27.5	98	41.5	424	28.7	38.0	-3.0
Boarding and lodging	51	25.6	323	20.3	20	8.5	127	8.6	-60.8	-60.7

Source: Busan Chamber of Commerce.

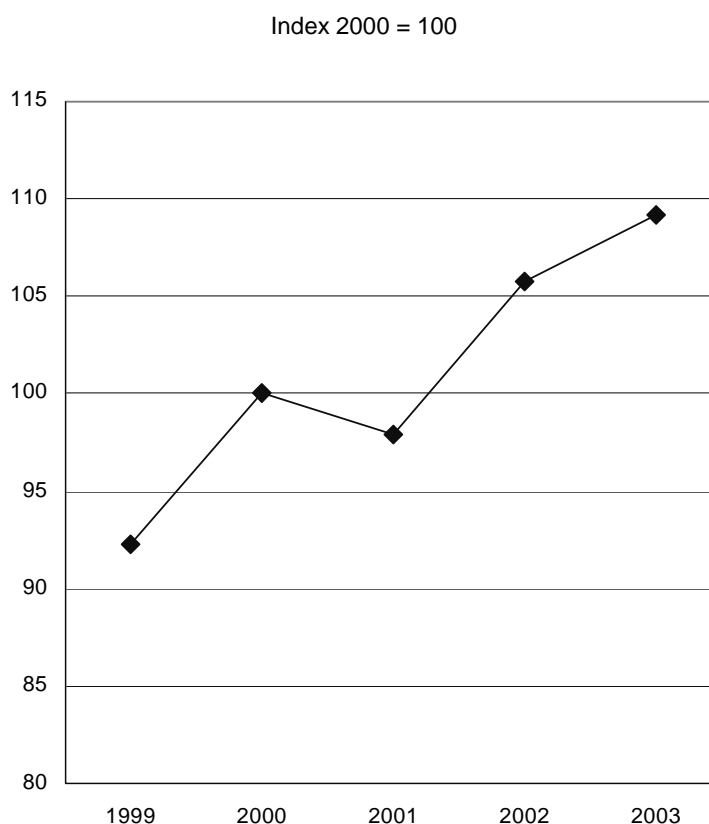
Table 1.7. Breakdown of Busan GDP by sector

% of GDP

	% of Busan GDP					% of Korea GDP				
	1998	1999	2000	2001	2002	1998	1999	2000	2001	2002
GDP	100.0	100.0	100.0	100.0	100.0	6.4	6.2	6.0	6.1	6.1
Agriculture, fishery	2.8	2.6	2.2	2.1	1.7	3.5	3.1	2.9	3.0	2.5
Manufacturing	18.0	18.3	18.3	18.2	18.4	3.5	3.4	3.2	3.3	3.4
Electricity, gas and water	3.5	3.6	3.9	3.7	3.6	9.2	8.6	8.0	7.6	7.2
Construction	10.1	8.0	7.8	8.2	9.3	5.8	5.4	5.4	5.7	6.2
Wholesales and retail	15.2	15.8	16.4	16.1	15.6	10.3	10.3	10.0	10.0	9.9
Food and accommodation	2.7	2.7	2.8	2.9	2.9	8.2	7.6	7.6	7.5	7.3
Transportation and storage	11.9	11.1	10.8	10.6	9.9	15.5	14.4	13.8	13.4	13.4
Communication business	3.5	3.5	3.5	3.5	3.4	8.7	8.7	8.5	8.2	8.3
Financial insurance	5.6	7.1	7.1	7.4	9.2	5.2	5.7	5.6	6.1	6.3
Real estate lease business	13.3	13.7	13.2	13.1	13.5	6.7	7.0	6.4	6.3	6.1
Community and personal services	6.3	6.6	6.7	7.5	7.3	8.3	8.4	8.0	8.2	7.6
Public administration	3.3	3.4	3.6	3.7	3.5	6.6	6.6	6.9	6.9	6.8
Social services	3.6	3.5	3.6	3.7	3.8	7.0	7.1	7.1	7.1	7.0
Non-profit sector	3.4	3.2	3.3	3.5	3.5	8.4	8.0	7.8	8.0	7.9
(-) Financial services	-3.2	-3.1	-3.2	-4.2	-5.6	-4.9	-5.0	-4.7	-5.5	-6.3

Note: Financial services are accounted with a negative value by the National Statistical Office.

Source: National Statistical Office.

Figure 1.11. Labour productivity in manufacturing industries, 1999-2003

Note: Labour productivity measured by (production output/labour input) x 100.

Source: Korea Productivity Center.

14. The decline of most of the previously leading industries marks a rupture with the former pattern of growth. Like most labour-intensive industries' exports in the country, footwear exports decreased precipitously during the 1990s and footwear companies shifted production from Busan to lower-wage countries such as Thailand, Indonesia, the Philippines and Malaysia, to say nothing of Vietnam and China. Still, some sectors have maintained substantial presence in the local industrial fabric. For example, footwear production has shrunk since its peak in 1986 with around 54 000 jobs concentrated in the largest five companies, but it still represents a core industry in Busan, accounting for 68% of national footwear production value (KRW 9.54 trillion) and 81.3% of the country's jobs in this sector. Other restructuring labour-intensive industries include textile and fashion. These two industries still contribute 13.9% of production value and 23% of employment in Busan and Gyeongnam, thereby representing the largest employer and exporter of this area. Shipbuilding in Busan and Gyeongnam represents 9% of national production value and 6% of total employment in this sector). Machinery and materials account for 32% of national production value and 38% of total employment in this sector. Nonetheless, their restructuring phase is likely to entail more unemployment in the area in the future, as the manufacturing sector's share in real GDP has increased in Korea while the manufacturing sector's ability to create jobs has decreased. Indeed, the ratio of Korean manufacturing's share of value-added versus its share of employment stood at 1.52 in 2001, higher than the average of OECD countries which was 1.1 (Ha, 2004).

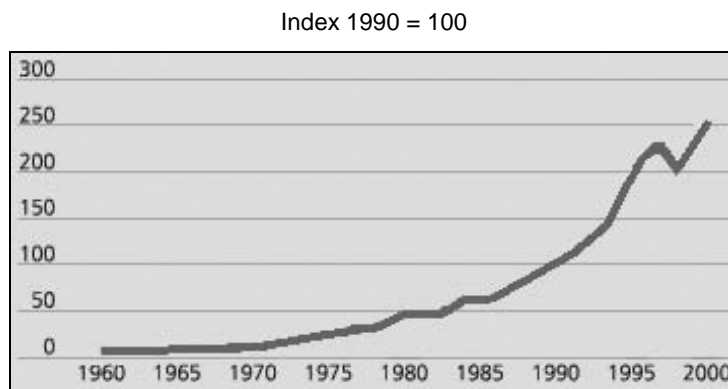
15. Knowledge-based value-added industries seem to be on the rise in Busan. Although still modest in size and economic output, the ICT industry has registered fast growth, with software sales increasing annually by 80% between 1998 and 2000. Building on the relatively high levels of computer ownership and Internet usage in Korea, projects to develop Internet services and computer game industries are anticipated to exploit this sector's growth potential. The movie industry is another promising industry, along with growing international recognition and success of the Pusan (Busan) International Film Festival (PIFF). Since it was first launched in 1996, PIFF has grown into Asia's largest film festival with more than 160 000 visitors from around the world enjoying over 220 movies of all genres at the 2002 festival⁵. In tandem, the Pusan Promotion Plan has become Asia's leading film co-production market and draws each year an ever larger number of international financiers and distributors.

Comparative advantages and potential threats for Busan Port

16. Busan has established itself as one of the world top ports with a high development potential. Several factors in the broader context of Asia explain its rapid and strong expansion:

- Busan is located in the Asia and Pacific region where exports have boomed over the last decade. From 1960 to 2000, this region experienced manifold increases in exports (Figure 1.12). Since the mid-1980s, trade among Pacific Asian economies has grown at a rate approximately double that of world trade and far higher than intra-regional trade of NAFTA or the European Union. In 2002, China (including Hong Kong) has overtaken the US as Korea's number one export market with 20.9% of Korean exports (ADB, 2003). During the last decade, Korean exports in particular grew annually by more than 15%. With 80-90% of exports shipped through marine ports in Korea, this trend has created rapidly increasing demand for port facilities and services that has continued into the 21st century.

Figure 1.12. Asia and Pacific merchandise exports, 1960-2000



Source: IMF.

- Integration of East Asia into the international production process appears to have been driven to a large extent by the significant flows of foreign direct investment (FDI) into the area over the past decade. However, Korea has not been appreciably dependent upon FDI for its economic growth. Even after neo-liberal reforms imposed by the IMF as a condition for bailout loans following the crisis, Korea remains the lowest recipient of FDI among major export-oriented economies of

Pacific Asia. Busan has, nevertheless, benefited as a collector port for China, which has become the developing world's major FDI recipient with USD 82.8 million contracted FDI and USD 52.7 million actual FDI in 2002.

- Population growth continues to gravitate to the centres in Asia and Pacific region, including Korea, as the transition from rural to urban-centred economies continues unabated. The greater Seoul capital region now accounts for almost half of the population of Korea (46.3%). Along with continuous spatial polarisation, growing cities will become ever more important destinations of goods. Major ports such as Busan are increasingly well-positioned to exploit these trends. Busan is in fact acting increasingly as a gateway to Seoul as well as to the southeast of Korea.
- Rather than specialising in the production of entire goods, East Asian countries tend to specialise in certain downstream stages of the production process, which results in simultaneous imports and exports. With over 50% import content reflected in exports, Korea is expected to combine robust growth in both imports and exports (ADB, 2003).

17. Several signs suggest that trade within the region will continue to grow over the next few years. Japan and Korea have concluded a bilateral investment treaty in early 2002 and launched formal discussions for a bilateral free trade agreement in December 2003. Furthermore, the two Koreas are in negotiation to reconnect the railways between the north and the south, which would be a first move towards linking Busan with Trans-Siberian and Trans-China railways in a long-term future. Besides, despite the appearance and growth of other modes of cargo transportation such as air freight, most goods in the world continue to be transported by marine carriers (maritime shipping carried 90% of the world's 5.1 billion tons of international trade in 2000).

18. So far, Busan has been largely successful in taking advantage of this favourable pattern in international trade. Its port has been able to tap its comparative advantages, including geographic characteristics such as ample depth of water for ship berthing as well as a relatively low cost of port facilities. Along with strong support from the central government, it has secured the top position in Korean maritime traffic with 18.1% of national traffic in 2002 and 90% in terms of containers. Transit traffic is also soaring, with a 24.2% growth in 2002 on the whole and 31.9% for containers. Busan has consistently ranked among the top five ports in the world in TEU cargo shipments in the recent period and even touched third place in 2002 (Table 1.8). Existing port facilities handled 9.4 million TEU that year and 10.4 million TEU in 2003, *i.e.* twice its initial capacity of 4.8 million TEU.

Table 1.8. Container volume handled by top 10 ports

Thousand TEUs					
Rank	Port	1998	2001	2002	2003
1	Hong Kong	14 582	18 000	19 140	20 449
2	Singapore	15 100	15 000	16 800	18 410
3	Shanghai	3 066	6 344	8 610	11 282
4	Shenzhen	1 952	5 000	7 610	10 615
5	Busan	5 946	8 070	9 440	10 367
6	Kaohsiung	6 271	7 540	8 490	8 522
7	Los Angeles	3 378	5 100	6 100	7 179
8	Rotterdam	6 011	6 100	6 500	7 107
9	Hamburg	3 547	4 700	5 370	6 138
10	Antwerp	3 266	4 463	4 780	5 445

Source: Pusan East Container Terminal Co., Ltd. (<http://www.pect.co.kr/>) and BDI (2004) for 2003 figures.

19. Still, Busan port faces potential challenges. While trends in international trade augur well for the port cities in East Asia, and notably for Busan, inter-port competition to capture and keep new market shares is also expected to intensify. The degree of Busan's rivalry with other ports in the Asia and Pacific varies. It is lower in the case of Singapore, perhaps because their areas of influence are different. Conversely, competition is intensifying in the case of China (Box 1.2). Container traffic in Chinese ports increased from 6 million TEU in 1990 to 28 million TEU in 1999, with an average annual growth of 17%. In particular, the upsurge of Shanghai harbour has been outstanding since this port is expected to handle alone as much as 30 million TEU in 2011, *i.e.* the whole container traffic of Korea this same year. On the one hand, China contributes greatly to the economic development of Korean ports. In 2001, 29.5% of containers processed in Busan were coming from China against only 18.7% from the US and 15.9% from Japan. On the other hand, China is an increasingly tough competitor. In terms of container traffic quantity, Busan was overtaken by Shanghai and Shenzhen ports, thus falling from third in 2002 to fifth position in 2003 in world ranking. Although Busan performances were adversely impacted that year by exceptional events such as strikes in truck industries and a severe typhoon, the high-scale expansion of facilities in Chinese ports and successful efforts to induce transshipment cargos were considered the main source of concern for Busan harbour.

Box 1.2. Increasing competition from main Chinese ports

Chinese ports nearly monopolise the top of the world league in terms of container traffic. In 2003, **Hong Kong SAR** (Special Administrative Region) was the busiest port in the world with 20.5 million TEU, close to twice the traffic of Busan. The catching up of **Shanghai** and **Shenzhen**, which slightly exceed the container handling level of Busan, has been remarkable as well. Forecasts for year 2010 (30 million TEU for Hong Kong, 15 million TEU for Shanghai) might even be underestimates if current trends are sustained and Shenzhen is likely to surpass Shanghai.

These three ports pose relatively different challenges to Busan. While Hong Kong's biggest weakness lies in its high costs (due to difficult accessibility of mainland ports), Shenzhen's relatively low costs, its position at the gateway of the Pearl River Delta, and its good infrastructure provide it with tremendous advantage over other East Asian ports. Shenzhen is also endowed with the mainland's first special economic zone (SEZ). With a seemingly endless trajectory of economic growth driven by labour-intensive assembly and manufacturing activities, its major concern will be to keep pace with demand in an efficient manner. Shanghai confronts additional technical challenges, such as the lack of deep-water ports. Waters at the Yangtze River estuary are shallow and too narrow for larger ships to access the port. This is the reason why a deep-water port (Yangshan) – one of the largest port projects in the world – is under construction.

The main danger for Busan is that all these competing ports are following a similar strategy, which consists of massively expanding capacities. In the case of Hong Kong however, this is mainly due to the inability to apply large cuts in costs, notably in terminal handling charges. By 2005, total port capacity of Hong Kong is expected to exceed 15 million TEU. The "Study on Hong Kong Port - Master Plan 2020" (HKP 2020 Study) indicates that strengthening existing advantages will be pursued in five directions: costs, communication between organisations in the port and freight industries, speed of cross-boundary clearance, commercial arrangements and port promotion. Hong Kong's logistics and business support services have been analysed to top those in Shenzhen and other nearby regions, and the SAR government intends to build on these advantages. Although waiting time up to six hours for truckers is not uncommon (due to slow bureaucratic processes to access the mainland), Hong Kong still offers reliable and transparent processing services, which are highly valued by shipping companies. Moreover, Hong Kong hopes to supply more than simply faster service or lower fees by offering access to a diverse and expanding single global network of all types of shippers across the entire Pearl River Delta. Available information for Shenzhen also indicates that container terminals at Yantian, Shekou and Chiwan will add eight container berths from the second half of this year to 2005. By then, the three container terminals will have an estimated capacity of over 11 million TEU. The additional berths will increase throughput capacity by 36.2 million tons for general cargo and 3.1 million TEU for containers. In Shanghai, the Port Authority has converted general cargo terminals into container terminals, building dedicated container terminals in the Waigaoqiao free trade zone. Efforts are also being made to build Waigaoqiao into a procurement and distribution centre for the Asia Pacific Region. With 18 berths currently, it plans to build as many as 58 more to meet the surge in traffic in and out of the port.

20. All port cities engaged in the Northeast Asia hub port race, including Busan, assert that winning the competition is directly related to their survival. In this respect, the relative decline of Japanese ports such as Kobe shows that there are winners and losers. Although Kobe was the fourth largest container port in the world in 1980, its operating costs were already four times those of Kaohsiung (in Taiwan) and six times those of Singapore in 1995 and it has long since dropped out of the top ten ranking for long. As with many ports in higher income countries, where TEU export volumes are in sharp decline due to offshore relocation of manufacturing and assembly operations to lower-income countries, Kobe has chosen to integrate its port into an urban regional plan that gives equal stress to port facilities and the urban environment⁶. Like Kobe and other Japanese ports, the tonnage of goods being shipped from Korea might decline over time, thus reducing Busan port's competitive advantages. Busan should thus analyse the trends in international ports and explore related factors, such as enhancing intermodality and hinterland logistics⁷. A long-term strategy is needed to build resilient economic capacity.

Underexploited resources for regional competitiveness

21. As in many OECD metropolitan regions including port cities, industrial restructuring in Busan has entailed an incremental decline of labour-intensive sectors such as footwear and timber. But it is also opening an opportunity to enhance regional competitiveness through policies cultivating resources that had remained underexploited up to now. For example, ancillary potential for growth in value-added industries such as tourism could be found in the exploitation of natural and cultural amenities, especially in order to build on the attractiveness that Busan recently acquired through its film festival. The success of such a structural transition phase also depends on how efficiently the city can capitalise on its innovative capacity, for instance by upgrading human capital, stimulating entrepreneurship or attracting foreign direct investment.

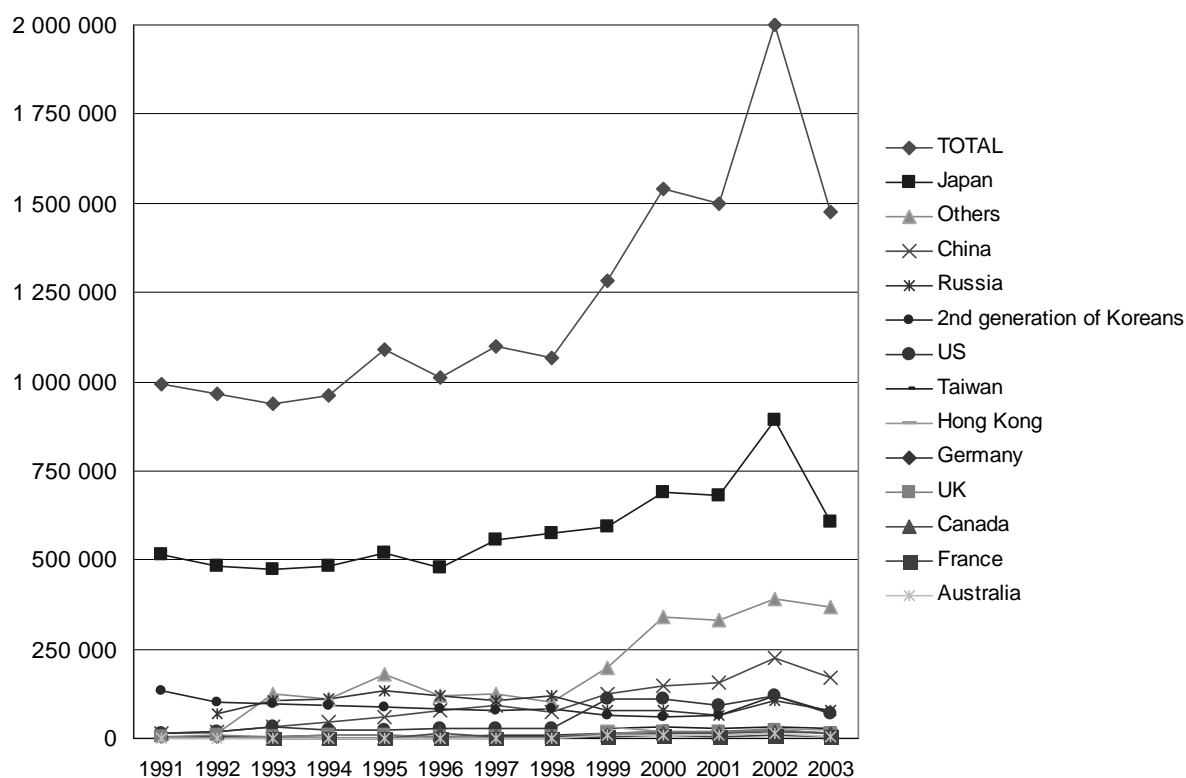
Exploiting natural and cultural amenities

22. With respect to tourism resources, Busan can count on its geographic location on the seaside, surrounded by mountains endowed with plenty of hot springs. It is also close to the Gyeongbuk Province where the capital of the ancient Shilla dynasty, Gyeongju, was located and still holds historic heritage. Busan city government has made an inventory of 121 tourist attractions, including three tourist resorts, six beaches, the Beomeo Temple, the UN Memorial Cemetery and Oryuk Island. These assets still lack sufficient visibility and the city government is planning to divide the city into four areas (central inland, central marine, eastern, and western) that would each focus on a specific asset. The central inland area contains historical attractions such as the Geumjeong Mountain Fortress, while the central marine area could focus on the downtown waterfront and includes the Jagalchi Fish Market and the Busan International Film Festival Plaza. The eastern region includes Haeundae Beach and the planned Village of History and Culture in Gijang County. The western area includes the ecosystem and industrial tour sites including Eulsuk Island, a habitat for migratory birds.

23. Currently, Busan is already one of the most important tourism destinations in Korea. In 2002, the World Cup and the Asian Games attracted a record number of 5.3 million tourists to Korea. Of these, two million tourists visited Busan, representing 37% of the total. The number of tourists however declined right from the following year below the 2001 level. Across the country, tourism constitutes a USD 6.6 billion industry, of which Busan earns approximately 21% or USD 1.4 billion per year, with mostly Japanese and Chinese tourists. Since the mid-1990s, the number of Japanese and Chinese tourists has remained steady or increased while there has been an overall decline in the number of travellers from Russia and other countries (Figure 1.13). This is mainly due to the shortcomings in transportation to and from Busan. Planning estimates suggest that future measures to establish Busan as an international cruise port could generate KRW 30 billion per year in profit. Many tourists opt for maritime transportation. International ferries bring approximately 300 000 foreign tourists or transit travellers each year who

continue their journey to Jeju Island. Most ferry travellers come to Busan from Osaka and Fukuoka in Japan and from Shanghai in China. The lack of a large international airport is also critical for tourism. Currently, there are 19 international air links connecting Busan with 7 countries only (140 flights per day to these countries) and 7 routes by sea (88 ship travels).

Figure 1.13. Evolution of number of tourists in Busan by country of origin, 1991-2003



Source: Busan Metropolitan City

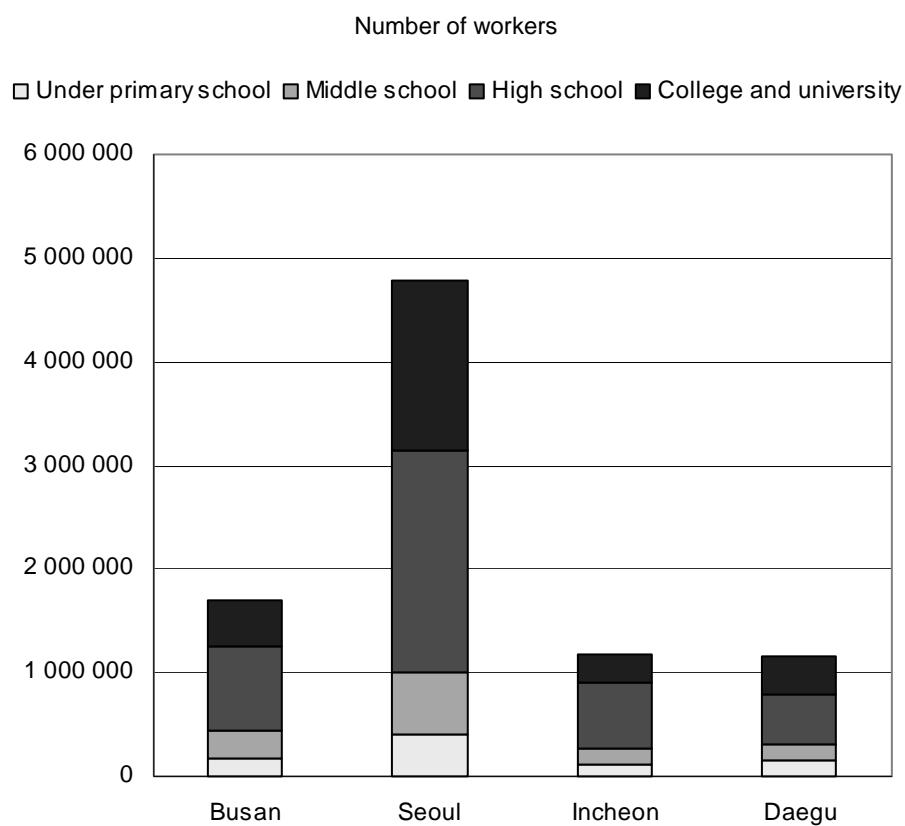
24. In order to fully tap tourism potential, active initiatives in education and marketing are required. Recently, Busan has devoted special efforts in training and media for tourism purposes that could still be further supported. Eleven universities, seven junior colleges, two specialised high schools and ten high schools are currently offering tourism-related courses. Dong-Ah University also proposes a tourism seminar to 80 graduate students. Furthermore, Busan city has created its own commercial video products. Promotional materials about Busan are being broadcast in train, airlines and other transportation companies, but their scope still seems to be limited and language often remains an obstacle to greater visibility. More comprehensive marketing and information campaigns, notably in foreign languages, could enhance Busan's international image and attract a larger panel of visitors.

25. As seen in many OECD regions, tourism promotion often has a regional dimension and close co-operation between different jurisdictions within a given area has turned to be crucial in branding the natural and cultural assets of the area. In this respect, Busan has a major potential that could be exploited more thoroughly. One important example is Busan's participation in the Tourism Promotion Organisation (TPO) of cities in the Asia-Pacific region. This organisation aims at establishing networks between cities and organisations in order to foster tourism in the region. Busan was selected as the president city, with Fukuoka (Japan) serving as vice-president city, and is hosting the secretariat. To date, 44 cities in 12 countries including Japan and China have participated as members. The General Assembly met in Busan in 2003 and will meet in Fukuoka in 2005. During these meetings, city representatives (usually mayors) discuss projects and common issues, which can be examined at the occasion of specific TPO forums as well. Through this experience, Busan could develop leadership in regional tourism, especially because Busan was officially designated in April 2004 as the next hosting city for the APEC 2005 summit and is currently launching preparatory works for this large-scale event. At the national level, Busan is already a member of an association that was created to promote the Southeast tourism belt in co-operation with Gyeongnam, Gyeongbuk and Ulsan. Collaboration has also started between these regions including Busan on the one hand and neighbouring regions on the other hand. Concrete examples of such inter-city collaboration are the Korea-Japan Straits Tourism Committee and the BUSHAFU tourism belt that connects Busan, Shanghai and Fukuoka to one another.

Upgrading human capital

26. While "hard" assets need to be valorised appropriately, Busan may have a longer way to go in terms of cultivating "soft" assets, *i.e.* human capital. It is worth recalling that upgrading local human capital stock should be a priority in Busan, considering that low labour productivity accounts for 89% of Busan's GDP per capita with other OECD metropolitan regions and more than 75% of the productivity gap itself is due to low human capital stock. In this respect, educational attainments can provide a basic indicator of the level of human capital. As in many other OECD countries, an educational divide is visible between the capital area and the rest of the country. Seoul area concentrates the highest-educated labour force (Figure 1.14) and although Busan exhibits a relatively well-educated labour force compared with the rest of the country, the share of university graduate workers in the employed population has fallen below the national average to 23.5% in 2000 while Seoul maintained 32.5%. Although the share of university graduates increased both in Seoul and Busan as well as other large cities in Korea, Busan has one of the third lowest-educated employed populations after Incheon and Ulsan⁸ (Figure 1.15).

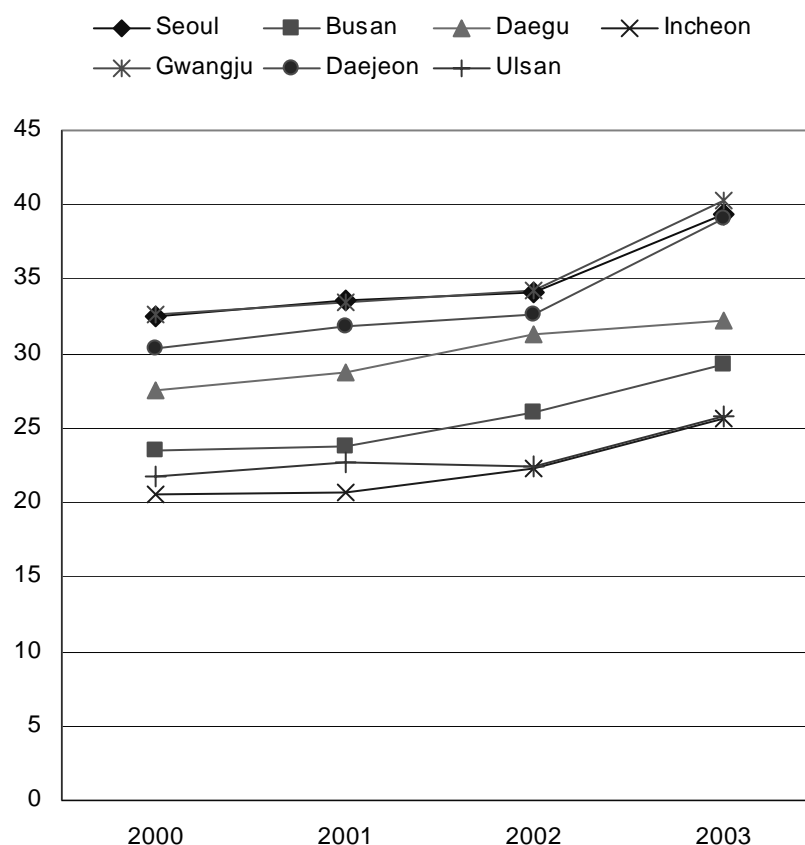
Figure 1.14. Educational attainment in Busan and selected Korean cities, 2002



Source: National Statistical Office.

Figure 1.15. University graduate or higher-educated population in Busan and other cities, 2000-2003

Percentage of university graduates or higher-educated people in total employed population



Source: National Statistical Office.

27. Lower educational attainments among Busan's employed population are not due to inappropriate education infrastructure. Indeed, despite the concentration of education and research infrastructure in the capital area, Busan is endowed with relatively good soft infrastructure and training resources. The city hosts no fewer than 12 universities, producing 44 000 graduates every year. It also comprises a dozen of scientific and engineering research centres affiliated with specialised talents in various universities. These technical centres provide technical assistance, R&D services and training to firms, *e.g.* the Busan Gyeongnam Automobile Techno Centre. In addition, three regional research centres (RRC) have been put into operation since 1995 in the field of environmental technology, intelligent and integrated port management system and electronic ceramics (although they are managed with a modest budget ranging from USD 1 to 3 million). Furthermore, university researchers in Busan accounted for 7.7% of university researchers in Korea in 2002, a high percentage compared with the total share of Busan researchers in Korea (4.3%) (Table 1.9). Their expertise could be tapped more effectively to foster firm innovation and regional renewal policies. Explanations of the relatively low educational level of Busan's employed population might be related to population ageing and brain drain towards the capital region. Considering the lack of data currently available, it would be useful to conduct a specific survey on brain drain.

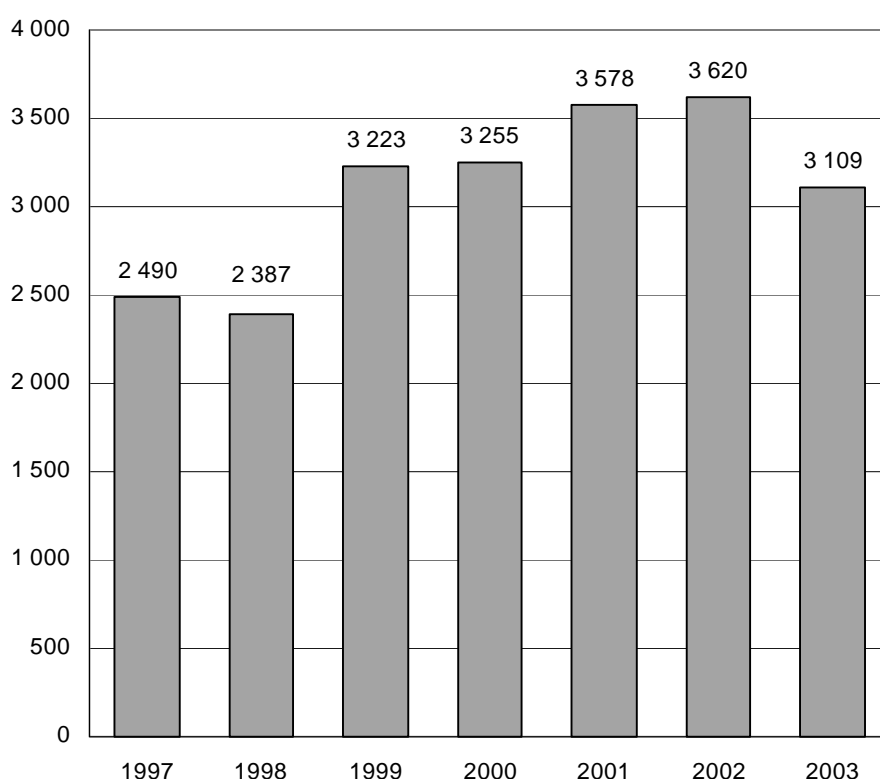
Table 1.9. Human resources for R&D, 2002

	Number of researchers (distribution rate in %)				Ranking
	Total	Public research centre	University	Firm	
Total	279 806 (100.0)	21 702 (100.0)	111 083 (100.0)	147 021 (100.0)	--
Seoul	80 022 28.6	4 336 20.0	33 295 30.0	42 391 28.8	1
Busan	11 934 4.3	538 2.5	8 595 7.7	2 801 1.9	6
Daegu	8 052 2.9	351 1.6	5 488 4.9	2 213 1.5	9
Incheon	9 504 3.4	547 2.5	3 322 3.0	5 635 3.8	7
Gwangju	6 729 2.4	137 0.6	5 008 4.5	1 584 1.1	11
Daejeon	26 681 9.5	7 987 36.8	10 830 9.8	7 864 5.4	3
Ulsan	5 586 2.0	-	1 091 1.0	4 495 3.1	14
Gyeonggi	71 495 25.6	3 405 15.7	12 540 11.3	55 550 37.8	2
Gangwon	6 471 2.3	357 1.7	5 525 5.0	589 0.4	13
Chungbuk	7 183 2.6	333 1.5	3 278 3.0	3 572 2.4	10
Chungnam	8 941 3.2	844 3.9	3 425 3.1	4 672 3.2	8
Jeonbuk	6 563 2.4	257 1.2	4 660 4.2	1 646 1.1	12
Jeonnam	3 771 1.4	316 1.5	2 436 2.2	1 019 0.7	15
Gyeongbuk	13 638 4.9	735 3.4	7 556 6.8	5 347 3.6	4
Gyeongnam	12 216 4.4	1 360 6.3	3 277 3.0	7 579 5.2	5
Jeju	1 020 0.4	199 0.9	757 0.7	64 0.0	16

Source: Ministry of Science and Technology, Report on Scientific Technological Research (December 2003).

Stimulating entrepreneurship

28. Recent OECD research has emphasised entrepreneurial activity as an important source of “creative destruction” that can generate innovation and increase productivity. Entrepreneurship has remained dynamic in Busan with a steady rise even after the 1997 crisis (Figure 1.16), thereby compensating the job losses induced by relocating and bankrupt firms. In 2003 however, for the first time since then, the number of new created firms declined by 14.1% compared with the previous year. Almost half of them occurred in distribution (28.6%) and construction (20.2%) industries. Busan also recorded the highest office vacancy rate in Korea (11.5%) compared with Seoul (3.4%) and national average (5.7%) in the second quarter of 2004 even though office rent prices decreased by 1.4% since the previous year.

Figure 1.16. Creation of new firms in Busan, 1997-2003

Source: Busan Chamber of Commerce.

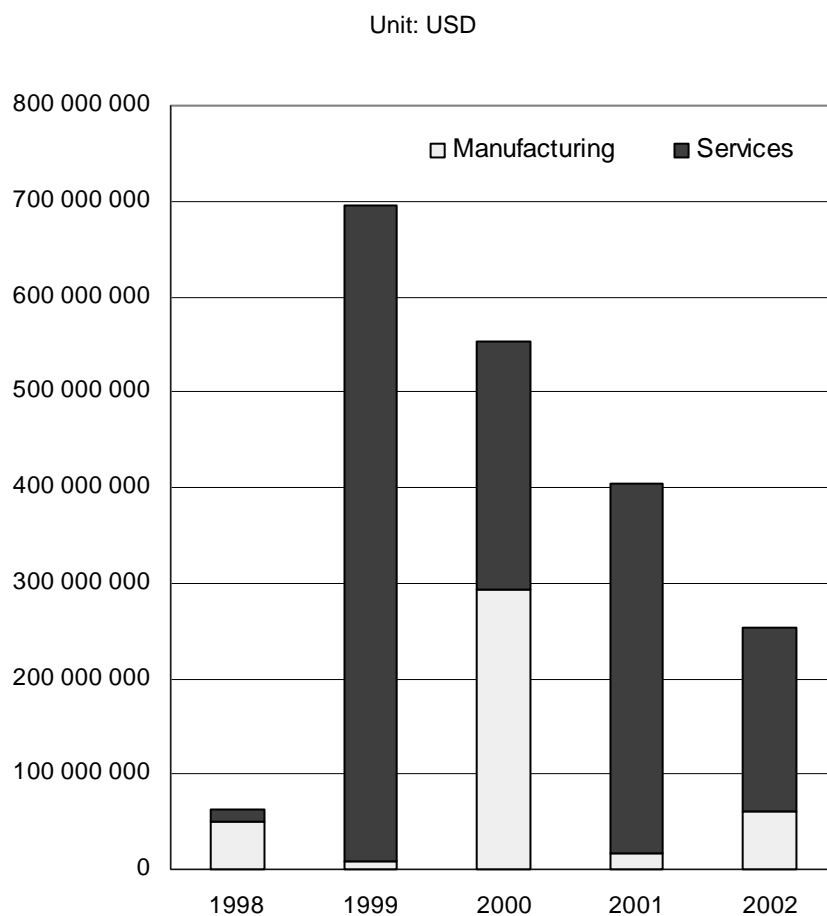
29. This slight decline could be reversed through better co-ordination of existing resources. Busan does not lack reserves in this field since it possesses a wide variety of entrepreneurship support centres, both within universities and in the form of business incubators. The local branch office of the central government's Small and Medium Business Administration (SMBA) and the city government supplied respectively KRW 540 million and KRW 450 million in 2003 to cover the management costs of business incubators. Entrepreneurial potential could be more easily tapped if additional initiatives could for example simplify application procedures for financial services and better link actors involved in the life cycle of start-ups. In particular, hidden investment opportunities could be better understood through more systematic communication and exchanges with "business angels" or networks of entrepreneurs and venture capital funds.

Attracting foreign direct investment

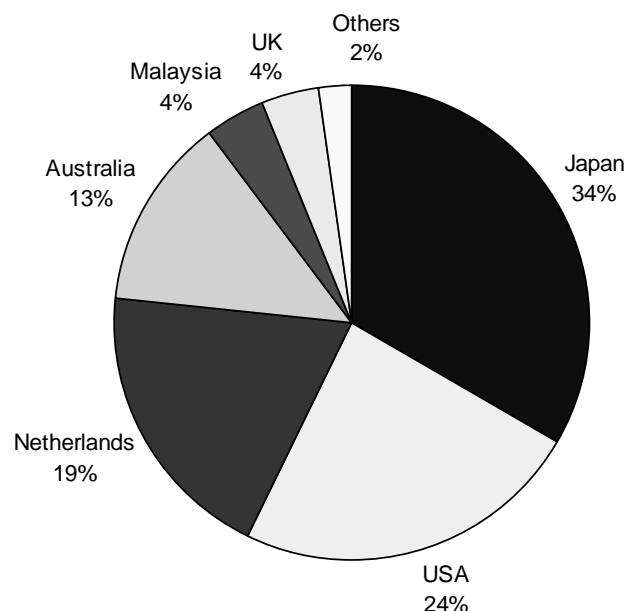
30. As an important source of capital inflow and job creation, foreign direct investment (FDI) can often stimulate regional economy and spillover effects. Following the general trend in Korea, however, FDI has been declining sensibly and regularly in Busan. The shift towards service industries in the structural mix of Busan (56.4% of GDP) was also visible in the composition of FDI inflows as service industries have tended to overweigh manufacturing industries among FDI inflows (Figure 1.17). A marked shift occurred recently in the origins of FDI in Korea, with capital flows from the EU increasing sharply

while those from the US and Japan declined markedly. Still, Busan remains heavily dependent on the latter two contributors (Figure 1.18). At the end of 2002, Japan accounted for one third of total FDI in Busan, and the three largest investors Japan, the US and the Netherlands accounted for more than two thirds of total FDI (almost 77%). The strategic location of Busan does not seem to be fully exploited. The expected embedding process of FDI in the regional economy through positive linkages between local and foreign firms remains unclear, which suggests that both multiplier effects of FDI inflows and business attractiveness could be significantly improved.

Figure 1.17. Evolution of FDI in Busan. 1998-2002



Source: Busan Metropolitan City, Investment and Trade Division

Figure 1.18. Distribution of FDI inflows by country of provenance. 2002

Source: Busan Metropolitan City.

Conclusion: Busan, a candidate world city?

31. The will to become a “global city” or a “world city” is omnipresent in Busan’s policy-making and the “global city Busan” motto appears deeply rooted in the city’s daily life⁹. Yet, it is worth thinking what criteria effectively make a city a “world city” and whether this sole objective should summarise the long-term development vision for the city. While competition between cities to attract command and control functions has certainly grown harsher all around the world, some analysts have noted “an intriguing phenomenon in Asia, namely, the intentional world-city creation through government policy” (Douglass, 1998).

32. In the case of Busan, the world city strategy has materialised in infrastructure mega-projects, such as the ongoing construction of a second port to help Busan hauling itself up into a super-container port, an express railway between Seoul and Busan, or a huge convention centre. This strategy has pulled Busan up to a remarkable level of development, by endowing it with good urban infrastructure. At present, Busan should back its industrial conversion with appropriate policy tools. Doing so requires Busan to improve its capacity for strategic planning. This means capturing opportunities that have been opened by the evolution of the country towards more balanced national development and more decentralisation, but also contributing to national progress by its own achievements. In other words, its success will depend on its ability to: (i) develop its economic capacity for development and thereby contribute to balanced national development; and consequently (ii) refine its governing capacity by becoming an active performer of decentralisation and tapping the catalytic role and knowledge of local actors.

NOTES

1. When it comes to analysing the economic development of a metropolitan area, the territorial unit of analysis should correspond to the functional area, as defined by the area encompassed by its economic relations. Economic relations can be represented by local labour markets, the area covered by a public service (*e.g.*, airport) or by a cluster of firms. In OECD countries, the most recurrent criterion used in defining a functional region is local labour markets, delineated by commuting flows.
2. There is no specific legislation on the criteria used to upgrade a city into a metropolitan city, but according to general practice, a city is considered ready to become officially metropolitan when its population is approaching one million inhabitants. Five more metropolitan cities were established in Korea after Busan: Daegu (1981), Incheon (1981), Gwangju (1987), Daejeon (1988) and Ulsan (1997).
3. This pilot exercise was first undertaken in the *OECD Territorial Review of Montreal* (2004). The 65 metropolitan regions were selected according to two criteria: 1) their population is larger than one million inhabitants; 2) they are classified as “predominantly urban” in the OECD Territorial Typology. The OECD Territorial Typology classifies regions into three categories: predominantly rural (more than 50% of the population lives in rural communities), intermediate (between 15 and 50%) and predominantly urban (less than 15%).
4. See Chapter 2.
5. Two hundred and sixty-four films have been screened during the ninth session of the PIFF in September 2004.
6. According to the Kobe Port Promotion Association, its current 10-year development plan ending in 2005 includes: 1) development of state-of-the-art port facilities through expansion of foreign trade functions and redevelopment of existing wharves; 2) improvement of the area's environment through promotion of modal shifts and enhancement of ocean-based transportation facilities; and (3) development of a port environment that is welcoming to the citizens, providing marine recreation and ensuring user-friendly waterfront spaces.
7. See Chapter 2.
8. There have been recent measures to better develop human resources in Busan. In October 2002, the central government chose Busan, Gwangju and Chungbuk as pilot areas for the Local Human Resources Development Project according to which Busan Metropolitan City established Human Polis Busan, a mid-term local human resources development plan. Busan enacted an ordinance in 2003 to raise the Local Human Resources Development Fund, which will amount to KRW 27.5 billion until 2007. Out of this fund, KRW 1.7 billion was already allocated in 2004 for the relocation of research institutions to Busan (*e.g.* High-Tech Parts and Materials Research Centre), KRW 700 million for developing local human resources development programmes and KRW 400 million for operating the Greater Busan Human Resources Development Promotion Centre. The central government contributed KRW 500 million in order to establish a human resources development foundation and develop pilot programmes.
9. For example, the development plan prepared by the Busan Development Institute, in co-operation with Busan Metropolitan City and university professors, is entitled “World City Busan 2010” (January 2004). The City Management Plan for Global City (2003-2006) put forward by Busan Metropolitan City also reads “Hope and Leap: Global City Busan” as a subtitle. Quantitative measurements of Busan’s so-called degree of global city-ness constitute a great cause of concern to both policymakers and citizens. Such preoccupations are particularly visible when it comes to assessing port performances, with local press articles regularly reporting an international comparative ranking of Busan and its neighbouring ports such as Shanghai or Kaohsiung.

ANNEX. IDENTIFYING THE DETERMINANTS OF REGIONAL PERFORMANCES

Decomposition of differences in GDP per capita

GDP per capita **in logarithms** can be written as:

$$1. \quad \frac{GDP}{Population} = \frac{GDP}{Employment} + \frac{Employment}{Labour\ force} + \frac{Labour\ force}{Population}$$

GDP
Productivity
Employment
Activity
per capita

rate
rate

Therefore, the difference in GDP per capita between a given metropolitan region and the average of all metropolitan regions is equal to:

$$\text{Difference in GDP per capita} = \text{Difference in productivity} + \text{Difference in unemployment rate} + \text{Difference in activity rate}$$

Decomposition of differences in productivity

Average labour productivity in region i is equal to a weighted average of sectoral productivity:

$$2. \quad \frac{GDP_i}{E_i} = \sum_j \frac{E_{ij}}{E_i} * \frac{GDP_{ij}}{E_{ij}}$$

where j indicates the sector.

From-the-average difference in productivity can be decomposed as:

$$3. \quad \left(\frac{GDP_i}{E_i} - \frac{GDP}{E} \right) = \sum_j \left(\frac{E_{ij}}{E_i} - \frac{E_j}{E} \right) * \frac{GDP_j}{E_j} + \sum_j \frac{E_{ij}}{E_i} * \left(\frac{GDP_{ij}}{E_{ij}} - \frac{GDP_j}{E_j} \right)$$

The first term on the right-hand of the equation measures the proportion of the difference in productivity due to regional specialisation.

Table A.1. Comparison of Busan and selected OECD metropolitan regions based on labour productivity, 2000

ISO code	Metropolitan region	Average labour activity	Index Busan = 100	Rank	ISO Code	Metropolitan region	Average labour activity	Index Busan = 100	Rank	ISO Code	Metropolitan region	Average labour activity	Index Busan = 100	Rank
US	Boston	138 462	512	1	UK	London	79 162	293	24	NLD	Zuid-Holland	56 862	210	47
US	San Francisco	117 641	435	2	US	Cleveland	76 852	284	25	FRA	Nord	56 724	210	48
US	New York	114 172	422	3	US	San Diego	76 746	284	26	CAN	Montreal	54 351	201	49
ALL	München-Ingolstadt	104 772	387	4	ALL	Detroit	76 514	283	27	CAN	Vancouver	54 005	200	50
ALL	Region Hamburg	96 275	356	5	US	Atlanta	76 466	283	28	NLD	Noord-Brabant	53 840	199	51
ALL	Darmstadt	95 684	354	6	ITA	Turin	75 873	281	29	JPN	Aichi	53 499	198	52
ITA	Milan	94 966	351	7	US	Baltimore	74 771	276	30	ESP	Valencia	51 971	192	53
US	Seattle	93 087	344	8	US	Philadelphia	74 709	276	31	UK	Greater Manchester	48 339	179	54
ALL	Rheinland	90 097	333	9	US	Detroit	72 785	269	32	HUN	Budapest	46 244	171	55
ALL	Stuttgart	87 643	324	10	US	Pittsburgh	72 548	268	33	JPN	Fukuoka	43 845	162	56
ALL	Karlsruhe	86 649	320	11	US	Phoenix	72 196	267	34	JPN	Kanagawa	42 451	157	57
ALL	Rheinessen-Pfalz	85 989	318	12	US	Minneapolis-St Paul	71 724	265	35	GRC	Attiki	42 193	156	58
FRA	Ile de France	85 812	317	13	US	Miami	71 620	265	36	KOR	Gyeonggi	37 174	137	59
US	Dallas	84 746	313	14	US	Portland-Vancouver	71 544	265	37	JPN	Chiba	37 071	137	60
US	Chicago	84 221	311	15	US	St. Louis	69 692	258	38	KOR	Seoul	34 269	127	61
US	Denver	83 797	310	16	ESP	Comunidad de Madrid	69 006	255	39	JPN	Saitama	33 962	126	62
JPN	Tokyo	83 637	309	17	US	Tampa - St Petersburg	68 116	252	40	KOR	Incheon	29 444	109	63
US	Houston	83 381	308	18	ALL	Region Berlin	66 006	244	41	KOR	Busan	27 042	100	64
ITA	Rome	82 666	306	19	NLD	Noord - Holland	63 900	236	42	KOR	Daegu	22 843	84	65
US	Washington	81 994	303	20	ITA	Naples	63 235	234	43					
US	Los Angeles	80 722	299	21	ESP	Barcelona	63 012	233	44					
ALL	Ruhrgebiet	79 302	293	22	CAN	Toronto	62 371	231	45					
ALL	Freiburg	79 220	293	23	JPN	Osaka	57 791	214	46					

Source: OECD Territorial Database

Table A.2. Explanatory factors of differences in productivity

Country	Metropolitan Region	Difference in productivity due to :		Percentage difference in productivity due to :	
		Specialisation	Capital stock	Specialisation (%)	Capital stock (%)
Canada	Montreal	2 687	-15 870	4	-23
Canada	Toronto	3 941	-9 105	6	-13
Canada	Vancouver	3 901	-17 431	6	-26
France	Ile de France	11 291	6 987	17	10
France	Nord	-5 303	-5 507	-8	-8
Germany	Region Berlin	-1 445	-84	-2	0
Germany	Region Hamburg	4 420	24 320	7	36
Germany	Ruhrgebiet	7 288	4 480	11	7
Germany	Rheinland	8 198	14 365	12	21
Germany	Detmold	5 973	3 006	9	4
Germany	Darmstadt	9 322	18 827	14	28
Germany	Rheinhessen-Pfalz	2 804	15 651	4	23
Germany	Stuttgart	7 636	12 473	11	18
Germany	Karlsruhe	9 391	9 723	14	14
Germany	Freiburg	7 103	4 582	11	7
Germany	Region München-Ingolstadt	8 426	28 812	12	43
Greece	Attiki	1 126	-26 468	2	-39
Hungary	Budapest	4 020	-25 310	6	-37
Italy	Turin	-106	8 444	0	13
Italy	Milan	12 999	14 432	19	21
Italy	Rome	3 939	11 193	6	17
Italy	Naples	-13 516	9 217	-20	14
Japan	Saitama	-14 894	-18 678	-22	-28
Japan	Chiba	-38 635	8 172	-57	12
Japan	Tokyo	9 051	7 052	13	10
Japan	Kanagawa	4 228	-29 312	6	-43
Japan	Aichi	-21 114	7 079	-31	10
Japan	Osaka	6 984	-16 728	10	-25
Japan	Fukuoka	-28 931	5 241	-43	8
Korea	Seoul	11 337	-44 602	17	-66
Korea	Busan	-10 040	-30 452	-15	-45
Korea	Daegu	-18 201	-26 490	-27	-39
Korea	Incheon	2 709	-40 800	4	-60
Korea	Gyeonggi	-51 769	21 409	-77	32
Netherlands	Noord-Holland	2 618	-6 252	4	-9
Netherlands	Zuid Holland	-6 621	-4 051	-10	-6
Netherlands	Noord-Brabant	665	-14 360	1	-21
Spain	Comunidad de Madrid	7 187	-5 715	11	-8
Spain	Barcelona	4 942	-9 464	7	-14
Spain	Valencia	-29 071	13 507	-43	20
GBR	London	13 905	-2 278	21	-3
GBR	Greater Manchester	11 805	-31 000	17	-46
USA	Atlanta	10 163	-1 231	15	-2
USA	Baltimore	10 079	-2 842	15	-4
USA	Boston	10 543	60 384	16	89
USA	Chicago	12 502	4 185	19	6
USA	Cleveland	10 720	-1 403	16	-2
USA	Dallas	8 404	8 807	12	13
USA	Denver	10 710	5 552	16	8
USA	Detroit	10 887	-5 636	16	-8
USA	Houston	11 153	4 693	17	7
USA	Los Angeles	8 429	4 759	12	7
USA	Miami	8 539	-4 454	13	-7
USA	Minneapolis Saint Paul	5 922	-1 732	9	-3
USA	New York	12 992	33 646	19	50
USA	Philadelphia	9 952	-2 778	15	-4
USA	Phoenix	7 382	-2 720	11	-4
USA	Pittsburgh	9 271	-4 257	14	-6
USA	Portland-Vancouver	-1 057	5 067	-2	8
USA	San Diego	6 300	2 912	9	4
USA	San Francisco	7 830	42 276	12	63
USA	Seattle	1 645	23 907	2	35
USA	St. Louis	6 162	-4 004	9	-6
USA	Tampa-Saint-Petersburg	7 664	-7 082	11	-10
USA	Washington	8 361	6 098	12	9

Source: OECD Territorial Database.

Table A.3. Comparison of Busan and selected OECD metropolitan regions based on activity rate, 2000

ISO code	Metropolitan region	Activity rate %	Index Busan = 100	Rank	ISO code	Metropolitan region	Activity rate %	Index Busan = 100	Rank	ISO code	Metropolitan region	Activity rate %	Index Busan = 100	Rank
USA	Dallas	58.4	136	1	USA	Chicago	52.1	121	25	ESP	Comunidad de Madrid	43.1	100	49
USA	San Francisco	57.7	134	2	USA	Phoenix	51.8	120	26	KOR	Busan	43.1	100	50
USA	Portland-Vancouver	57.7	134	3	USA	Cleveland	51.5	119	27	KOR	Daegu	43.0	100	51
USA	Seattle	57.6	134	4	USA	Philadelphia	51.4	119	28	FRA	Nord	42.9	100	52
CAN	Toronto	57.2	133	5	NLD	Noord-Holland	51.3	119	29	ESP	Barcelona	42.3	98	53
CAN	Vancouver	56.9	132	6	NLD	Zuid-Holland	51.1	119	30	ITA	Rome	41.9	97	54
USA	Atlanta	56.6	131	7	NLD	Noord-Brabant	51.1	118	31	DEU	Darmstadt	41.7	97	55
USA	Washington	56.6	131	8	USA	Pittsburgh	50.9	118	32	DEU	Stuttgart	40.5	94	56
USA	Minneapolis-St Paul	55.7	129	9	JPN	Osaka	50.5	117	33	DEU	Region Berlin	40.4	94	57
USA	Denver	55.4	129	10	GBR	London	49.9	116	34	DEU	Region Hamburg	40.0	93	58
USA	Boston	55.1	128	11	FRA	Ile de France	49.7	115	35	DEU	Karlsruhe	39.0	90	59
JPN	Aichi	54.5	127	12	USA	Miami	49.7	115	36	DEU	Rheinland	38.9	90	60
USA	Tampa-St-Petersburg	54.1	125	13	JPN	Fukuoka	49.2	114	37	DEU	Detmold	38.1	88	61
USA	Houston	53.8	125	14	GBR	Greater Manchester	48.7	113	38	DEU	Freiburg	35.7	83	62
JPN	Tokyo	53.6	124	15	GRC	Attiki	47.1	109	39	DEU	Ruhrgebiet	35.0	81	63
USA	Baltimore	53.6	124	16	KOR	Gyeonggi	45.8	106	40	ITA	Naples	34.8	81	64
JPN	Saitama	53.4	124	17	USA	New York	45.5	106	41	DEU	Rheinessen-Pfalz	34.0	79	65
USA	St. Louis	53.3	124	18	ITA	Turin	44.8	104	42					
USA	San Diego	53.0	123	19	ITA	Milan	44.6	103	43					
CAN	Montreal	52.9	123	20	KOR	Seoul	44.4	103	44					
USA	Detroit	52.8	123	21	ESP	Valencia	44.3	103	45					
USA	Los Angeles	52.7	122	22	HUN	Budapest	44.0	102	46					
JPN	Chiba	52.7	122	23	DEU	München-Ingolstadt	43.8	102	47					
JPN	Kanagawa	52.5	122	24	KOR	Incheon	43.5	101	48					

Source: OECD Territorial Database.

Table A.4. Comparison of Busan and selected OECD metropolitan regions based on employment rate, 2000

ISO code	Metropolitan region	Employment rate %	Index Busan = 100	Rank	ISO code	Metropolitan region	Employment rate %	Index Busan = 100	Rank	ISO code	Metropolitan region	Employment rate %	Index Busan = 100	Rank
NLD	Noord-Brabant	97.8	105	1	KOR	Incheon	94.8	102	25	ALL	Karlsruhe	91.6	98	49
NLD	Zuid-Holland	97.3	104	2	HUN	Budapest	94.7	102	26	ITA	Turin	91.5	98	50
NLD	Noord-Holland	97.1	104	3	US	Cleveland	94.7	102	27	ALL	Freiburg	91.5	98	51
US	San Diego	96.7	104	4	US	Phoenix	94.7	102	28	FRA	Ile de France	91.3	98	52
US	Minneapolis-St Paul	96.5	104	5	ITA	Milan	94.6	102	29	ESP	Barcelona	90.6	97	53
US	Washington	96.5	104	6	US	Detroit	94.6	102	30	ESP	Comunidad de Madrid	90.2	97	54
US	Boston	96.3	103	7	JPN	Fukuoka	94.1	101	31	ALL	Region Hamburg	89.4	96	55
KOR	Gyeonggi	96.2	103	8	US	Chicago	94.1	101	32	ALL	Detmold	89.2	96	56
JPN	Aichi	96.0	103	9	US	Dallas	94.1	101	33	ALL	Rheinland	89.0	96	57
US	Philadelphia	95.9	103	10	US	Los Angeles	94.1	101	34	ALL	Rheinessen-Pflaz	88.5	95	58
US	Atlanta	95.8	103	11	CAN	Toronto	94.1	101	35	ITA	Rome	88.1	95	59
US	Pittsburgh	95.8	103	12	ALL	München-Ingolstadt	94.1	101	36	GRC	Attiki	87.8	94	60
US	Tampa-St-Petersburg	95.6	103	13	UK	Greater Manchester	94.0	101	37	ESP	Valencia	87.7	94	61
US	Houston	95.5	103	14	US	Seattle	93.8	101	38	FRA	Nord	86.6	93	62
US	San Francisco	95.5	103	15	US	New York	93.5	100	39	ALL	Ruhrgebiet	85.0	91	63
US	Baltimore	95.4	102	16	KOR	Busan	93.1	100	40	ALL	Region Berlin	80.4	86	64
JPN	Chiba	95.3	102	17	UK	London	93.0	100	41	ITA	Naples	72.1	77	65
JPN	Saitama	95.3	102	18	JPN	Osaka	93.0	100	42					
JPN	Kanagawa	95.2	102	19	ALL	Stuttgart	93.0	100	43					
JPN	Tokyo	95.2	102	20	CAN	Vancouver	92.8	100	44					
KOR	Daegu	95.2	102	21	US	Portland-Vancouver	92.7	100	45					
US	St Louis	95.1	102	22	CAN	Montreal	92.5	99	46					
US	Denver	95.0	102	23	US	Miami	92.0	99	47					
KOR	Seoul	95.0	102	24	ALL	Darmstadt	91.8	99	48					

Source: OECD Territorial Database

CHAPTER 2. REGIONAL COMPETITIVENESS

33. Busan is Korea's second largest economic centre. It is also a post-industrial city that has to address the complex challenge of restructuring its economy in the midst of a globalising environment. At the same time, the central government has recently launched policies to promote balanced development across regions as a national priority. This context affords opportunities for growth and innovation, but it also means that the Busan region could learn to rely less on the central government and bolster its own capacity to foster regional development. Three conditions should be fulfilled for such a strategy to be successful: (i) better use of its main existing strength, *i.e.* port and infrastructure assets; (ii) closer integration of port activities with clusters specialised in high value-added activities; (iii) securing long-term regional growth by shifting towards innovation-based regional development.

Exploiting port and infrastructure assets

34. After several years of rapid economic expansion, based largely on the tremendous growth of its port facilities and business, Busan faces severe international competition and needs to fine-tune its growth strategy to respond to shifting market conditions. This reform could follow three main directions: (i) *Increasing capacities*. So far, Busan's strategy has centred on building new berths to respond to the requests from shipping companies; (ii) *Enhancing productivity and efficiency*. Beyond quantitative expansion, more proficient use of existing infrastructure and IT could help raise the port's competitiveness; (iii) *Improving port governance*. New forms of port governance are being introduced so as to improve the co-ordination of tasks; (iv) *Enhancing accessibility and logistics infrastructure*. Significant economies of scale could be achieved via multimodal transport networks linking a variety of transportation systems together. Increasingly, the "club effect" that derives from attracting customers to a port and thereby attracting shippers depends on how well a port is connected with air, road, and rail services across and among extensive geographical regions; (v) *Securing sustainable port development on the long term*. In light of intensifying international competition among mega-ports, the port of Busan room could find its own road for progress.

Increasing capacities

35. Busan authorities are competing with other ports to capture increased market shares by increasing its berthing capacities. According to national and local authorities' forecasts, Busan is expected to process 10 times more containers in 2011 compared to 2001. In response to this booming demand, a new Busan port is currently under construction on the southwest coast of the city across the border with Jinhae City (in Gyeongnam Province). By 2011, this second port is expected to provide 30 additional container berths that are slated to handle 8.1 million TEU annually (Table 2.1). Port expansion is also meant to attract assembly and distribution centres of multinational companies, which tend to locate in the vicinity of international ports. In 2002, the central government successfully bid to secure 66 000 m² of land in order to host storage facilities for the London Metal Exchange, the world's largest market for the trading of non-ferrous metals. Such moves support the government's plans to create a maritime industry cluster, in which shipping companies, brokers, agencies, vessel managers, shipbuilders and even insurance and legal service companies gather together, creating a one-stop marine transport market. With USD 421 million in funds

from the Busan Urban Development Corporation (BUDCO), a new logistics complex will also be constructed around the new port by 2013, covering 3 083 km² of logistics, business, commercial and residential sites.

Table 2.1. New Busan port project

	By 2008	By 2011	Total
Container berths	13	17	30
Quay length (m)	4 700	5 250	9 950
Terminal area (m ²)	2 942	3 802	6 744

Source: Busan Metropolitan City.

36. The new Busan port will involve significant construction costs. Costs are estimated to total KRW 9.1 trillion (not including potential extra costs as often occurs with construction costs in mega-infrastructure projects), which is almost equivalent to twice Busan's revenues in 2002. While private financing is expected to cover 54.4% of the investment, the central government is to supply the remaining 45.6%. Having shown a strong and persistent will to position the country as a hub in Northeast Asia, the Korean government now faces a financial burden that seems all the more onerous that the government confronts the same burden in Gwangyang. This latter is another port which was developed in the province of Jeonnam on the southwest coast of Korea in order to achieve balanced regional development and reduce traffic pressure on Busan.

37. The construction of the new Busan port and the expansion of Gwangyang port are occurring simultaneously. Although Gwangyang port currently represents only 10% of Busan port's handling capacity, it is planned to expand significantly its capacity to offer 33 berths in total over the next six years. Government plans have calculated the ratio of container traffic between Busan and Gwangyang to be 50:30 in 2011. Yet Gwangyang port does not seem to have reached saturation levels, since its container traffic in 2003 remained below its handling capacity of 2 million TEU at around 1.2 million TEU. Gwangyang port's overcapacity needs to be properly addressed in order to enhance national competitiveness in terms of port logistics.

38. In order to avoid the risk of overcapacity induced by the two-port policy and potential budget drift, both expansion projects of Busan and Gwangyang ports need vigilant control and re-assessment on a regular basis according to clearly defined evaluation criteria. The Policy Evaluation Committee of the Prime Minister's Office suggested that it would be desirable to revise the plan for the expansion of Gwangyang port on a gradual basis because the port's facilities are currently good enough to meet the demand. At the same time, both ports should be actively encouraged to specialise in different goods traffic so as to avoid functional overlaps and the wasteful dilution of resources.

Enhancing productivity and efficiency

39. Increasing capacities means not only cutting costs but also enhancing productivity and efficiency. Beyond pushing ahead with additional container berths, measures to increase productivity and handling capacity through upgraded IT systems should be actively pursued. Since 1999, Busan and 13 other national ports have been endowed with an automated system called PTMS (port traffic management service). Identifying the location of cargoes nevertheless remains difficult and the performances of the computerisation system could be significantly improved. If Busan is to achieve its often stated objective of catching up with the level in Singapore, it is critical to increase productivity by establishing a new software

system using appropriate IT equipment. Current government plans to upgrade PTMS into VTS (vessel traffic service), an advanced radar system already used in Los Angeles-Long Beach port for example, are promising; but the plans should also be carefully assessed due to high installation costs and the potential impact on user fees. All actors need to be involved in background analysis and mutual consultation, which could be facilitated by the recent reforms in Busan port governance.

Improving port governance

40. Improving port governance could be another source of efficiency. For this purpose, the management of the port has been decentralised and the autonomous Busan Port Authority (BPA) replaced the Busan branch office of the Ministry of Maritime Affairs as administrator of the port as of January 16, 2004.

41. Although port authorities are very common in other OECD countries and take a variety of institutional forms (Box 2.1), the creation of the BPA is the first endeavour of this kind in Korea. The BPA is composed of 11 members: 5 recommended by the Mayor of Busan and 6 recommended by the Ministry of Maritime Affairs and Fisheries (MMAF)¹. The president of the BPA is nominated by the President of the Republic of Korea upon recommendation of the Ministry of Maritime Affairs and Fisheries. While the central government continues to ensure safety and related standards through the MMAF, the BPA now handles port development, management and construction. It will rent terminal facilities and collect fees from private operators. These fees are expected to provide the resources needed to improve facilities, modernise terminals and consequently increase efficiency. In addition to providing more transparent management, another important task for the new port authority will be to remedy flaws in management and marketing strategies. For example, the four piers of the Gamman container terminal are currently managed by four different companies, an institutional structure that risks promoting inefficiency and uncoordination.

Box 2.1. Port authorities in OECD countries

Despite various definitions, port authorities can be classified into four main categories according to the way ports are organised, structured and managed.

In **service ports** that are predominantly under the control of a ministry, the port authority offers the whole range of services required for the functioning of the system. Due to its lack of flexibility and of market-oriented innovation, this model is becoming unusual in OECD countries and tends to be confined to developing countries. Similar to service ports, the port authority in **tool ports** owns, develops and maintains port infrastructure but shares operational responsibilities in cargo handling services with private firms. "*Ports autonomes*" in France such as Marseilles are an example of this model (except for certain more recent terminals). Conflicts have arisen sometimes between the port authority and private firms because of split responsibilities. Such weaknesses are solved in **landlord ports**, where the port authority acts as regulatory body and a landlord while private firms own and operate cargo handling equipment. This is the most widespread model in OECD countries and especially in large ports such as Antwerp and New York, as well as in Asia with Singapore since 1997. Along with increasing competition between ports, the introduction of private management has represented a strong trend in industrialised countries over the last few years, but **fully privatised ports** remain quite exceptional and can be found mainly in the UK and New Zealand where even port land is sold to private owners.

Source: Typology established by the World Bank (2001).

42. In OECD countries, port authorities increasingly call on the private sector to finance new facilities and equipment, mainly through public-private partnerships. These partnerships have taken various

forms such as operation and maintenance contracts, lease contracts, concession agreements, build-operate-transfer (BOT) and build-own-operate (BOO) schemes. Similar to Busan, Rotterdam and Hong Kong have employed interesting variants of public-private partnership (Box 2.2). During the process of building its new port, Busan is expected to resort increasingly to public-private partnerships. Such partnerships have been previously identified in Busan as the key to success in the development of port management information system (PORT-MIS) (Bagchi and Paik, 2001). Experience in OECD countries shows that for public-private partnerships to actually fulfil the promises they hold, the preparatory phase is decisive. In this phase occur the key steps of building trust and consensus and establishing a common strategy. Surprisingly, the private sector in Busan does not seem to be routinely consulted with openly or early, even though its financial involvement in government-planned projects is described as very high. The BPA and its partners thus ought, at the earliest opportunity, to initiate an open dialogue, encourage joint efforts in analysing project risks (be they political, financial, environmental or social), ensure the common formulation and implementation of a clear strategy, and set up objective and identifiable measurements of success.

Box 2.2. Example of public private partnership in Rotterdam and Hong Kong

In Northwest Europe, the five dominant ports – Antwerp, Rotterdam, Bremen/Bremerhaven and Hamburg – are run in a similar pattern of public-private partnership combining public ownership of the port and private port business, sometimes called the “Hanseatic model”. On June 25, 2004, the Dutch central government, the municipality of Rotterdam and the Port of Rotterdam company (Havenbedrijf Rotterdam N.V.) concluded an agreement on the financing of the construction of Maasvlakte 2, a plan to expand the port of Rotterdam by reclaiming land from the sea. Total construction costs are estimated to amount to EUR 2 575 billion. The plan consists of the construction of 1 000 hectares of commercial sites for container handling, chemicals and distribution and thereby leads to an expansion of the port area to the west by 20%. Maasvlakte 2 is part of the Rotterdam Mainport Development Project (PMR), aimed at upgrading both the economy and the quality of life in the Rotterdam region. Besides the expansion of the port area, other plans in the PMR project include the creation of 750 new hectares devoted to nature and recreation and a number of other initiatives to make more intensive use of the existing space in Rotterdam's port area. The central government will take a share in the Port of Rotterdam company (that was turned into a publicly-owned corporation as of January 1, 2004). By taking EUR 500 million of new shares in the corporation, the central government reduces the fraction of shares owned by the municipality of Rotterdam to 66.7% and it will also share in any profits that result from the project.

In Hong Kong, general reliance on the private sector and minimum government's oversight have worked very well. This model is worth considering, particularly in ports that have sufficient traffic volume to enable competition among service providers to thrive. Overall, the government has a hands-off approach to port operations, relying on competition within the private sector to shape and control activities. The government's Marine Department's operational function in the port is limited to collecting refuse, preventing and cleaning up oil discharge, providing vessel traffic services, managing a ferry terminal, maintaining 61 harbour moorings and co-ordinating search and rescue in the South China Sea. While the government develops long term strategic land use plans for the port, it relies on the private sector to finance, build, own and operate new facilities in response to market demand (four private operators for mid-stream operations, more than 100 private operators for warehousing services, three firms for tug services in the port, seven companies for stevedoring services, and six companies for ship repair). For example, since 1972 the private sector has built eight modern container terminals in the port and a ninth is now under construction. In awarding such terminal contracts, the government earmarks an area of water to be put out for tender, defines the responsibilities the developer is to undertake and selects the bidder who offers the highest price for the development site. Once awarded, the contractor is responsible for making the entire investment in infrastructure and superstructure on the site. The government's role is limited to providing the agreed water depth in the approach channel to the terminal. A Port and Maritime Board has been established to set overall policy for the maritime sector in Hong Kong, but this Board does not generally get involved in oversight of commercial operations in the port.

Source: Port of Rotterdam and World Bank.

Enhancing accessibility and logistics infrastructure

43. One of the critical weaknesses of Busan to be overcome remains relatively poor accessibility. While there is room to increase the port's handling capacities, raise efficiency and improve management, logistics costs in Korea have increased significantly over the last decade, and transportation costs represent the largest and a growing share in total costs (Table 2.2). This trend indicates the need for a better integration of existing infrastructure and for new equipment. Easy intermodality between port, rail, road and air transportation services and the availability of cost-efficient logistics infrastructure in the port hinterland are becoming vital criteria to attract shipping companies.

Table 2.2. Logistics costs in Korea, 1987-2000

Billion KRW

	Transport	Stock manage- ment	Wrapping	Loading and unloading	Informat- isation	Other	Total
1987	6 122 (49.3%)	4 157 (33.5%)	508 (4.1%)	359 (2.9%)	606 (4.9%)	672 (5.4%)	12 424 (100.0%)
1992	17 275 (56.3%)	9 041 (29.5%)	899 (2.9%)	666 (2.2%)	1 344 (4.4%)	1 438 (4.7%)	30 663 (100.0%)
1997	33 470 (59.2%)	14 502 (25.7%)	1 344 (2.4%)	1 028 (1.8%)	3 141 (5.6%)	3 029 (5.4%)	56 514 (100.0%)
2000	42 792 (62.2%)	13 752 (20.6%)	1 739 (2.6%)	1 144 (1.7%)	3 591 (5.4%)	3 677 (5.5%)	66 695 (100.0%)

Source: Korea Transport Institute, Korea's Macroeconomic Logistics Costs in 2000, 2002.

44. Concerning land freight, Busan is exploiting quite well the advantages of trucks in terms of flexibility and availability for both long and short distances. Trucks account for as much as 80% of container traffic from the harbour. In this context, the construction of the new port could help to derive some of the traffic from the city, provided that the new road links connecting the new port with the main road network are built rapidly. However, this seems problematic. Due to the financing methods frequently evident in Busan's infrastructure works, *i.e.* heavy reliance on public funds without sufficient prior agreement, central and local governments presently confront disagreement on the financing of new roads. Hence, the construction of the hinterland road n°1 for example (6.74 km) is at present delayed. Yet the main truck lines, and especially the Seoul-Busan highway that opened to traffic in 1970, are often close to saturation levels of use. This bottleneck might undermine the market shares of Busan port by increasing incentives for shippers to unload more goods at Incheon harbour when serving the capital region market.

45. In terms of air freight, the relatively low freight capacity of Gimhae Airport serving Busan is causing serious concerns. Despite significant investments made for the 2002 FIFA World Cup Korea/Japan and the 14th Busan Asian Games, current airport infrastructure is estimated to reach saturation by 2010 for both passengers and freight. Also given its modest involvement in international traffic from and to Korea, Gimhae Airport remains a weak pillar in terms of port development strategy. In order to solve this problem, the city is proposing different options to the central government, including the expansion of Gimhae Airport or the building of a new international airport. In view of the geographical and ecological constraints in Busan, such options should be assessed on the basis of careful cost-benefit analyses and environmental impact analyses. Co-ordination with Daegu and Ulsan airports should also be activated and formalised, notably for the establishment of new international lines.

46. Significant expectations have attended the opening of the new high-speed train line (KTX) in April 2004, which has cut the transit time from Busan to Seoul to 2 hours and 50 minutes. Although the high-speed train is open to the public, it offers high-speed transportation only part of the way as the Busan-Daegu section remains regular speed. High-speed service over the entire route will not commence until at least 2010 due to technical problems as well as conflicts between local residents and railway companies about the location of the line between Busan and Daegu. Even so, the new high-speed line is anticipated to relieve the saturation of the present railway line and to re-balance traffic between road and railway links. It could eventually improve the quality and speed of transportation services by cutting the connecting time to Seoul in half. This will, however, require significant investment in terms of intermodal platforms and rolling equipment.

How sustainable is the development of Busan Port?

47. The intensification of competition between port cities is leading Busan and other competing ports to employ very similar approaches in attracting shippers. These approaches focus on increasing container handling capacity and reducing costs. Notable are escalating investments to accommodate ever larger ships and more elaborate intermodal networks. These investments entail increasing risks as their profitability depends directly on the maintenance of strong economic growth. There is ground to reassess those risks in Busan. Along with WTO-led reforms reducing trade barriers has come an era of intensifying competition among cities and regions for global investment. The result has been a plethora of high-risk mega-projects (not only ports, but also airports, very tall buildings, business complexes, export processing zones, technology parks, etc.) offered by governments as a means to attract globally footloose investment. Yet, many projects have ended up underutilised. In the port domain, Busan has been seriously challenged by China, which practically monopolised the world's top ranks in 2003 in terms of container handling. In order to prevent this trend from leading to further decline in Busan, counterpolicies need to be drawn from other relevant international examples.

48. As national per capita income rises, labour-intensive assembly and manufacturing are moved offshore to lower-income economies, such as China. While this benefits the Asia and Pacific region in general, it can erode the sustainability of specific ports in countries in the region that are no longer competitive in these activities. Such was the case of Japan, which has seen its own transnational companies shift production to other countries, leading to a decline in out-going marine shipments. Europe is experiencing a similar situation. As many as half the containers that arrive full of goods leave European ports empty or nearly empty. For the world as a whole, the share of empty containers has stood above 20% for the past two decades², and projections suggest that this level will persist. The implications for Busan are already suggested by the decline of labour-intensive industries, notably footwear, which began as early as the mid-1980s. Like Kobe and other Japanese ports, over time the tonnage of goods being shipped from Korea can be expected to decline. This means Busan is increasingly likely to shift toward the "Developed Market Economy Countries" pattern. Whether decline is evident in Busan is difficult to determine yet. Even so, Table 2.3 suggests that Busan's volume growth is centred in one area, transshipment, whereas the other aspects of port activity are generally flat. Transshipment is currently about 40% of Busan's traffic, but the new investment plans to lift it to 44%, which will end in underutilised capacity if either Korea cannot get rail service beyond Seoul or Chinese ports begin to improve in transshipment capacity, which they have not been doing yet but might do in the future.

Table 2.3. Total cargo traffic in Busan

Unit: tonnes

	1999	2000	2001	2002
Imports	44 548 417	54 744 694	34 270 582	42 372 966
Exports	48 488 824	47 154 390	48 197 191	48 417 730
Transshipment	-	-	28 770 174 / 23 324 322	36 262 836 / 28 405 788
Domestic	14 719 887	15 329 876	15 099 273	15 241 532
TOTAL	107 757 128	117 228 960	149 661 542	170 700 852

Source: Ministry of Maritime Affairs and Fisheries.

49. Given the possibility for Busan's port volumes to plateau or even slide, it would be prudent to avoid the potential downside risks of overinvestment strategy over the long term. Port cities increasingly follow a path of development that can be schematised in three main phases, from pre-industrial to industrial and on to knowledge-based economies (Table 2.4). Most large port cities in Pacific Asia are in the second phase, which is reflected in the primary importance given to port infrastructure investment geared for larger ships and wider logistical networks that are shipping-intensive. In the future, however, there will be a clear push to make the port more relevant to needs not directly related to shipping. These needs include amenities and service industries. There is increasing international awareness of this nearly inevitable shift³. And the rise of competing ports in China may in the long term lead Busan and other similarly situated ports in advanced economies more decisively in this direction. Most port cities are endeavouring to create more integrated city-port linkages and have also shown renewed concern for the environment and urban liveability. Busan should take due note of these trends in shaping its own planning decisions.

Table 2.4. Port city transition to amenity-rich knowledge-intensive economy

Port City Region	→ Port City Transition →		
	(1) Pre-industrial	(2) Labor-intensive export industry	(3) Amenity-rich, knowledge-intensive
Port Functions	Simple sea-land interface	Logistical distribution platforms (e.g. among industrial estates and export processing zone facilities)	Region wide intermodal nodes in international supply chain networks
City Region Economy	Commercial centre, primary product export	Branch plant light industry & assembly operations; local management functions of global firms.	Knowledge-based, diversified high technology "learning regions" with headquarter functions and amenities as attractions for investment.
Urban Design Focus	Port development and city development separated. Port as "dockland"; city as separate commercial centre. Emphasis on trunk road linkages to resource and agricultural hinterlands to ports.	Port development linked by trunk roads to new peri-urban industrial "growth poles" as globally-linked enclaves. City hosts local TNC management functions with focus on raising central city skylines and providing for massive suburbanization of residential population.	Port as "riverside" landscapes integrated into city design; city as amenity-rich, historically-rich landscapes with multiple locations for public engagement and life-long learning; shift from metropolis to post-metropolitan urban regional networks

Source: Douglass (2002).

Reconciling the port and the city

50. While bolstering its port's competitiveness, Busan also confronts the major challenge of reconciling its port with the city itself. Many port cities, including those in OECD Member countries, stand among the most environmentally degraded cities in the world. The urban and economic landscape created during the period of rush towards super-container ports turns out to be largely irrelevant to the next phase of knowledge-based and amenity-intensive economic growth. Those port cities that do not manage the transition towards a knowledge economy run a high risk of becoming obsolete industrial regions. Integration of port and urban economy but there is not much reliable data yet in Busan. Specific research on the contribution of port industries and of related high value-added industries (such as port-related computerisation) to Busan GDP could help identify effective tools to enhance positive spillovers of Busan's port on the local economy. A policy to building on existing port advantages to raise the city's overall competitiveness could pursue the following priorities: (i) improve strategic urban planning; (ii) invest in international branding; (iii) maximise the benefits from the free economic zone; (iv) diversify and specialise the local economy; and (v) streamline cluster policies.

Bringing strategy into urban planning

51. Efforts to reclaim sustainable, amenity-rich living in port cities require strategy-oriented urban planning. In Korea, two-thirds of the country is mountainous but population density ranks the third highest in the world (excluding city-states). Given Busan's geographical constraints (sea and mountains) and its high density, the city has a particular challenge to tackle in this field. In order to control high-speed urban growth and preserve green spaces, the central government applied measures similar to several other OECD countries such as the UK, by designating significant portions of land as greenbelts around all major urban agglomerations in 1971. Currently, greenbelts (also called restricted development zones) in Korea still represent 5 397 km² or 5.4% of total national territory. In the case of Busan, the population's spectacularly rapid expansion led the government to extend the greenbelt from the initial 86.2 km² in 1971 to 323.85 km² nowadays, bringing it up to 41% of the city's territory. Despite high urbanisation, such intense land use control in Korea has resulted in the allocation of only 5.8% of total national land to urban development, versus 13% in the UK and 7% in Japan (OECD, 2004).

52. Given this national context and the imperative for the port to expand so as to remain competitive in Northeast Asia, Busan has long claimed that the greenbelt be deregulated and converted for other purposes. The city based some of its major development projects (such as building a tourism complex or establishing a free economic zone) solely on the prospect of greenbelt deregulation. Few other alternatives, such as exploiting pre-existing local potential, were considered in place of using the land that was still under the zoning regulation of the central government. This matter generated long and complex discussions since 1998 among different actors from the central government (Ministry of Construction and Transportation and especially Central Commission for Urban Planning), the local government (Busan Metropolitan City, Gyeongnam Province), research institutes (KRIHS, Busan Development Institute, Gyeongnam Development Institute) and the citizens. The Metropolitan City Planning proposal was presented to the Ministry of Construction and Transportation in June 2003 but co-ordination difficulties between Busan and Gyeongnam Province delayed its final review. This delay led to what can be described as costs of non-coordination because it took again nearly an additional year to pass the project. Finally approving Busan Metropolitan City Planning 2020 in May 2004, the Ministry of Construction and Transportation gave permission to deregulate 43.24 km² of green belt. Thus, 13.78% of the total green belt in Busan is to be deregulated. This percentage of deregulation is higher than in the Seoul region and very close to the average of the seven largest cities in Korea (Table 2.5).

Table 2.5. Share of deregulated area in total restricted development area

	Total restricted development area (km ²)	Deregulated area (km ²)	% of deregulated area
TOTAL KOREA	5 397	1 617	29.96
7 largest cities	4 294	514	11.97
<i>Including:</i>			
Seoul region	1 567	136	8.68
Busan region	405.51	55.74	13.74
- among which Busan	313.76	43.24	13.78
7 small and medium cities*	1 103	1 103	100.00

* Seoul region refers to Seoul, Incheon and Gyeonggi. Busan region includes Busan, Gimhae and Yangsan. Small and medium cities refer to Jeju, Chungju, Choonchun, Yeosu, Jeonju, Tongyoung, Jinju.

Source: Busan Metropolitan City.

53. Recovering 4.5% of total city territory opens valuable opportunities for Busan to enhance strategic urban development, but such measures should be carefully planned. Greenbelts are sometimes rebuked for imposing restrictions on residents' property rights and exerting pressure on land prices. But their dismantlement also calls attention to some caveats that Busan needs to take into consideration. In particular, the construction of the new port and of its hinterland on deregulated greenbelt area entails inevitable risks of environmental degradation that both public and private authorities in Busan need to curb more strictly than is currently planned.

54. Such a task is especially urgent if one considers that some of the world's most rapidly rising cities are already devoting special efforts to boost their green image. Most Asian mega-cities have attempted to keep explosive urban growth under control and have applied greenbelts and zoning plans, but their contemporary chaotic landscapes show little of such attempts (Yokohari *et alii*, 2000). Some of them are now attempting to gain competitive advantage over other mega-cities in terms of attractiveness. For instance, Beijing is planning to host the "Green Olympic Games" in 2008 and is expecting to add 412 km² to its existing greenbelt by 2008. On average, each Beijing resident enjoys 4 km² of area covered by trees and lawn. Perhaps the most pertinent phenomenon for Busan is that many other port cities are devoting special efforts to environmental and cultural reforming (Box 2.3). At a time when globalisation accelerates competition among cities and regions, Busan should further explore the advantages of going green, so to speak. In terms of economic attractiveness, careful linkages between port and city development are vital, and one of the policies to integrate them could be to build on maritime tourism.

Box 2.3. Environmental and cultural reforming in port cities

One example of environmental reform is seen in **Southampton** in the UK, one of the 13 largest container ports in Europe above 1 million TEU per year. In April 2004, the British Ministry of Transportation rejected the project of building the Dibden Bay container terminal in Southampton for the sake of environmental concerns, even though Associated British Ports had spent GBP 45 million over 10 years on this project. This 240-hectare terminal would have been able to handle over 2.3 million TEU, but was planned to be located near the New Forest Heritage Area, which has been registered as a national park.

Le Havre, first container port in France, has also focused on the preservation of biological functions in its project "Port 2000". Considering that the port expanded by four new berths and three logistics parks in the first phase of this project (2000-2003), special measures were taken as to protect animal life and residents' living environment. An independent expert group was even appointed in December 1998 to produce a report on the possible degradation of the Seine estuary and propose an environmental management plan. The city applied for a European URBAN programme in order to integrate its distressed areas and help them redevelop into an efficient interface with the port.

Box 2.3. Environmental and cultural reforming in port cities (continued)

Along with its Eco-Port project, **Osaka** in Japan has reinforced many environmental and anti-pollution measures in its port development plans. It constructed a swimming resort, a fishing park, a natural bird sanctuary in the Sakishama area and a yacht harbour in the Hokko area. It is now trying to move away from its austere reputation as Japan's second city and industrial port city, and established an Urban Revitalisation Task Force in April 2003 to accomplish an image makeover.

Building on the geographic advantage of the Tainan Science Park, **Kaohsiung** in Taiwan pushes ahead for integrated development of the city and the port through cultural boom. To its great credit, the government has managed to clean up Love River as a historical landmark, an accomplishment that is matched by Singapore's cleaning of the Singapore River, but is still rare among port cities in Pacific Asia. Architects and planners are developing museums, historic preservation, a multi-functional business park in abandoned building areas, and inner harbour tourism. Cultural festivals such as the Kaohsiung International Container Arts Festival are also being actively promoted.

Investing in international branding

55. The tourism industry has been widely identified as one of the most promising next-generation economic base for regional development. Despite its strategic location as a crossroads and a gateway to Pacific and Northeast Asia, Busan has no “trademark image” yet. Whilst Chinese cities for example are increasingly acknowledged in collective imagery as ‘rising’ cities, Busan still has a long way to go in terms of international branding. In this respect, increasing both its national and international accessibility is critical. The newly opened high-speed train will improve transportation to and from Busan, and the possibility to build a new international airport might also open broader opportunities.

56. It is crucial for Busan to develop an integrated strategy for tourism and branding in order to move away from its austere image of industrial port-city up to a modern maritime city. Busan is already endowed with the nationally very popular Haeundae Beach and other natural assets. Because there are nevertheless inevitable limits to physical or *hardware* elements, Busan would be well-inspired to invest more in *software* elements, *i.e.* thematic events and festivals. For example, building on the assets of the port city, one of the niches that Busan could cultivate is “thematic tourism”, mainly maritime tourism including cruises (Box 2.4), yachting and bathing activities, but also other activities related to typical local assets such as the increasingly wide-known Busan International Film Festival, beauty surgery holidays connected with hot springs and historical tours around the 1 000-year old Gaya Dynasty. Busan has already organised international-scale events recently, including such mega-events as the 14th Asian Games and part of the Football World Cup in 2002. Furthermore, other events such as the marine festival and the air show are to be held on a regular rather than merely *ad hoc* basis.

Box 2.4. Exploiting the economic advantages of the cruising industry in OECD countries

In many OECD countries, port cities have focused on hosting cruise ship visits as a way to diversify and boost their industrial pattern. Cruising is one of the fastest growing sectors of tourism, both in terms of number of ships and number of passengers. Three million passengers from Europe and 8.5 million passengers from America are expected to cruise in 2004, while the industry is also booming in Asia and Australia. Since the early 1990s, it has experienced considerable consolidation into a limited number of large operators, which has enabled the latter to exploit economies of scale and enough bargaining power on on-shore suppliers' prices. Port cities have traditionally provided cruise line companies with considerable allowances to attract their business (e.g., Panama offered in 2001 a USD 12 bounty to cruise ships for every passenger landed, San Juan reimbursed a portion of port charges to cruise lines in return for investment in the construction or renovation of a cruise terminal). Many ports are expanding piers and terminals, assuming that cruise ships will generate income significant (e.g., in 2003, Portland in Maine has planned to spend USD 1.2 million in waterfront improvements due to wear and tear from cruise ships). Three guidelines could help Busan to take full advantage of the economic advantages offered by the cruising industry:

Box 2.4. Exploiting the economic advantages of the cruising industry in OECD countries (continued)

- **To enhance on-shore amenities to exploit spillovers of the cruise industry on the port.** While the economic impact of cruise lines on hosting ports remains unquestionable, income expectations have sometimes proved to be overstated. With cruise fares *per se* kept relatively stable, cruise lines have turned to revenue from onboard shops and services (bar and restaurant sales, casino gambling, phone and internet access, photography, etc.). This trend has challenged the revenue to be derived from on-shore excursions and shops. Besides, cruise lines sell excursions to passengers at a higher price than the price paid to on-shore merchants (as much as three times higher), which limits multiplier effects of the cruise industry on local business. A way to maximise such spillovers in Busan could be to enhance on-shore amenities and to endorse *ex ante* arrangements with cruise lines as to ensure minimum benefits for local businesses.
- **To develop co-operation among hosting ports and among port merchants.** In order for ports to conduct such arrangements, they need to minimise mutual competition that could be exploited by cruising companies in order to drive prices down. Busan and its neighbouring ports could agree on minimum prices of shore excursions for example, so that each port can avoid being played off against another. Merchants in the various ports could also make a collective commitment not to undersell any product to cruise lines.
- **To ensure strict environmental regulations.** Ports do not necessarily take enough into account the environmental (and consequently economic) costs incurred to host cruise ships, such as the costs for waste cleanup, the cost of wear and tear of cruise ships on port infrastructure, etc. Busan should make sure that no-discharge zones are designated around and within its harbours, clear standards are set for cruise ship discharges to the air and the water, and that a monitoring system is established to ensure compliance with these standards.

Source: Cruise Industry News (2004) and Klein (2003).

57. A promising option would be to connect tourism with other aspects, notably convention tourism. The institutions of Busan's urban governance already effectively undergird this strategy since city administration has integrated tourism, culture and conventions within the same department. Rather than forcing Busan Exhibition and Convention Centre (BEXCO) to compete with the already well-established Convention and Exhibition (COEX) in Seoul, Busan should concentrate on attracting events that will single out its own identity as a maritime capital instead of blurring it into Seoul's. It should also exploit the financial advantage that BEXCO services are cheaper than those of the COEX. Busan could learn from several non-capital cities in OECD countries that have successfully developed a convention industry by specialising in carefully targeted sectors and cultivating local multiplier effects (Box 2.5).

Box 2.5. Exploiting convention industry in non capital cities in OECD countries

Smaller cities than Busan in OECD countries have exploited the local spillovers of exhibition and convention industry through (i) specialisation policy that embosses a distinctive image on the city; (ii) aggressive promotion measures to link events with local businesses.

With a population of 977 091 inhabitants in 2001, **Birmingham** (UK) hosts a large-scale National Exhibition Centre (NEC) that stages more than 180 exhibitions per year. It hosts many international trade fairs, but it also targets smaller specialist shows and provides them with active support. One of the positive initiatives of the Birmingham Convention Bureau is that it provides a wide variety of event services linking with local support companies (transport, audio-visual equipment, etc.) and dynamically promotes local culture (arts, shopping, food, etc.) to enhance the multiplier effects of events.

Leipzig (Germany) had a population of 495 609 inhabitants in 2003. Opened in 1996, its exhibition and convention centre hosts the Leipzig Trade Fair, one of the oldest and largest trade events in East-West Europe. Targeted at Central and Eastern Europe markets, the Leipzig Trade Fair has specialised in such sectors as construction and housing, mobility and transport, etc. Its International Business Lounge opens to exhibitors and visitors a meeting and information point to encourage new business co-operation. Among event services, the Leipzig Trade Fair ensures that exhibitors have good access to local business partners for stand design, display equipment, catering, advertising, etc.

58. One example of a mega-event that could increase Busan's international visibility and boost local tourism is the upcoming APEC meeting. This is a valuable opportunity for public authorities, the private sector and civil society to join efforts to endorse international branding, by cultivating a business- and resident-friendly environment and opening up communication in foreign languages. In such large events, co-operation on a larger regional scale is also particularly decisive and on this occasion, Busan managed to co-operate very well with Ulsan, Gyeongbuk and Gyeongnam⁴. The city should invest in promoting its festivals and assets to attract over 2 million tourists and induce people to stay longer in the city before or after the meeting. As is evident from other OECD Member countries, the main challenge in such event tourism is less organising the event itself than capturing its economic spillovers and multiplier effects⁵.

59. Taking stock of the mega-events that were successfully organised in Busan, the city should work further to maintain the contact with the tourists that attended events such as the World Cup. Busan tourism office has already taken good steps in this direction, by developing supporters' programmes and soccer tournaments. In this field, co-operation on all levels (regional, national, international) will be decisive. Busan has established a close link with the Korean National Tourism Organisation and its 19 branch offices throughout the world, by sending Busan brochures to these offices and organising promotion sales tours abroad. This could be strengthened more actively through the network of Busan's sister cities.

60. Internationally speaking, tourism policies in Busan have remained relatively under-exploited so far and there is still room to valorise port assets to attract inflows of people and capital. A more direct attempt from the city government to exploit port advantages to fuel city competitiveness has been the creation of a free economic zone. The idea animating this approach is to combine the locational benefits of the port proximity with the classical advantages of free economic zones. The hope is to establish a friendlier port-city interface and create new jobs for city residents. But there are many reasons to question whether such a policy can successfully trigger investment and foster steady economic development.

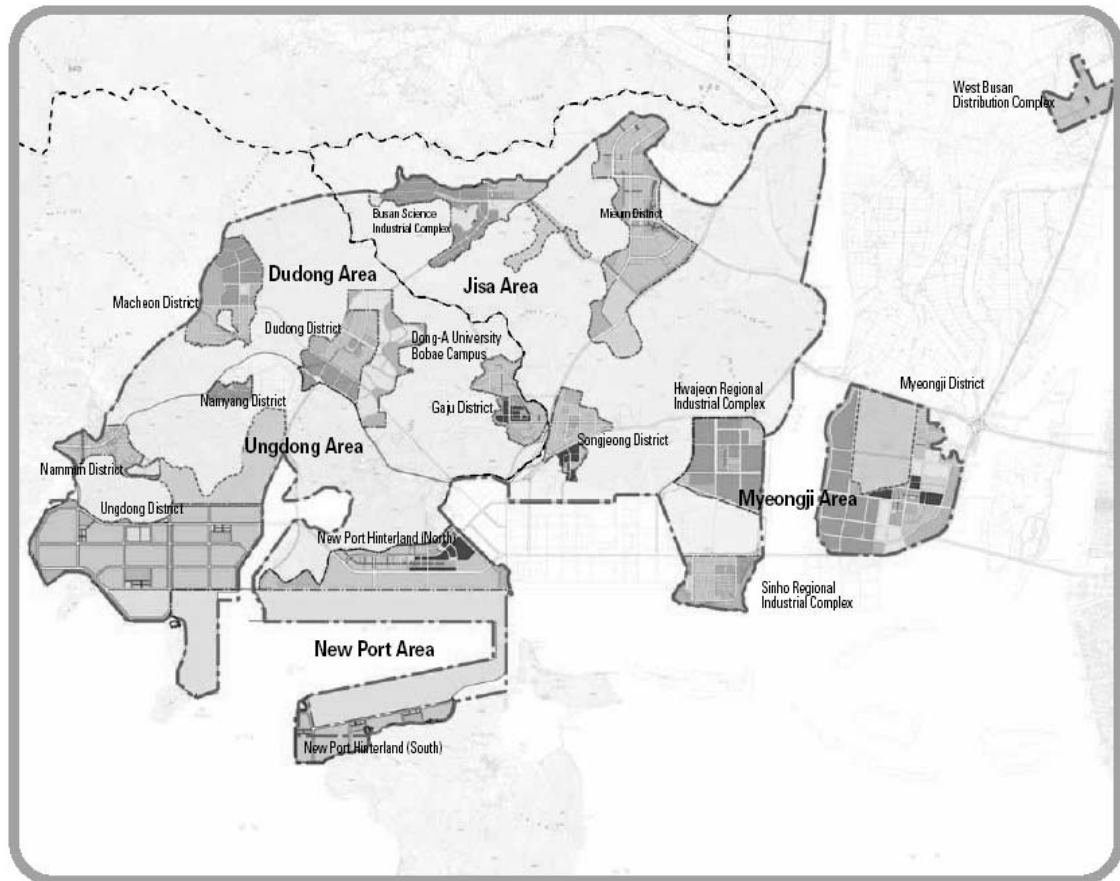
Beyond the free economic zone

61. The newly opened Busan-Jinhae Free Economic Zone (BJFEZ) is one of the government's most salient initiatives (Table 2.6). Though relatively widespread in other countries, free economic zones constitute a new policy tool in Korea. The three free economic zones in Incheon, Gwangyang and Busan-Jinhae opened only in 2003. The implementation methodology and expected economic impact follow the same path as in other countries: by providing drastic fiscal exemptions to foreign investing firms as well as generous deregulatory measures and various support services, the zone is expected to attract more FDI, which has been sluggish recently in Korea as a whole⁶ and in Busan in particular. The BJFEZ will be divided into five main areas, each with its own specialisation: logistics, distribution, international business and maritime affairs in the New Port Area, IT industry for air logistics in Myeongji area, high-tech industry and R&D in Jisa area, mechatronics and professional education in Dudong area, marine resort and leisure in Ungdong area (Figure 2.1). In May 2004, the BJFEZ Authority in collaboration with Busan Metropolitan City Government has performed its first promotional tour in the US, the Netherlands and Germany in order to raise the international awareness of the FEZ and attract potential investors, mainly firms specialised in manufacturing, port logistics, real estate development. On the basis of this tour, the Authority is currently setting up plans to maintain contact with potential investors and real estate developers. This might help boost the Busan economy and contribute to building a business hub in Northeast Asia.

Figure 2.1. Map of Busan-Jinhae Free Economic Zone

The Balanced Specialized Development of Each Area

The Overview of Busan -Jinhae Free Economic Zone



Each project get under way step by step.

The Phased Project Period : - Phase 1-1 (2004-2006) - Phase 1-2 (2007-2010) - Phase 2 (2011-2020)

- Residential Site
- Commercial Site
- Business Site
- Hi-Tech Manufacturing
- Public Facilities
- R&D
- Logistics - Distribution
- Leisure - Resort
- Greeneries
- Others
- Reserved Site

Source: Busan-Jinhae Free Economic Zone Authority.

Table 2.6. Fiscal incentives in Busan-Jinhae Free Economic Zone

Conditions for foreign companies locating in BJFEZ	Nature of fiscal incentives
Logistics: investment should be higher than USD 5 million	National taxes <ul style="list-style-type: none"> • Corporate tax, income tax: 100% exemption for 3 years + 50% discount for 2 years
Manufacturing: investment should be higher than USD 10 million	Local taxes <ul style="list-style-type: none"> • Acquisition tax, property tax: 100% exemption for 3 years + 50% discount for 2 years
Tourism: investment should be higher than USD 10 million	<ul style="list-style-type: none"> • Registration tax, land tax: 100% exemption for 3 years + 50% discount for 2 years

Source: Busan-Jinhae Free Economic Zone Authority.

62. Internal competition among the three free economic zones of Korea should be avoided so that they can attract maximal FDI and contribute all to national growth. In particular, free economic zones in Incheon and Busan each need to develop a clear specialisation (Table 2.7). Considering that Busan is less accessible than Incheon without an international airport and lacks the huge agglomeration economies of Seoul, it has to multiply the benefits to be drawn from its geographical location. The major rail linkages required to achieve these advantages are yet unlikely to come to fruition in the near future due to political as well as technical engineering obstacles. Although the recent agreement in June 2004 to open the first rail links between North and South Korea in 2005 cast promising signs, solid arrangements with North Korea remain unpredictable and fraught with political hazards.

Table 2.7. Free economic zones in Busan and Incheon

	Busan	Incheon
Date of designation	October 27, 2003	August 6, 2003
Total surface	104.1 km ²	209.3 km ²
Number of FDI projects	-	4 (3 from the US, 1 from the UK)
Distribution by nature of projects	-	<ul style="list-style-type: none"> • Social overhead capital 25% • Health 25% • Logistics 25% • Real estate 25%
Number of employees in the bureau of the FEZ	155 employees	286 employees

Source: Busan Metropolitan City.

63. Because the Busan-Jinhae free economic zone is very new, it is still too early to evaluate its economic impact. There seems to be little knowledge yet in Busan about what criteria should be used in order to evaluate the zone's performance. Systematic use of cost-benefit accounting, with a narrow definition of costs as running costs only, makes it difficult to gauge clearly the zone's outcome, as this methodology ignores such factors as public contributions to the sunk costs of port development.

64. Experience with free economic zones and export processing zones around the world has proved to generate mixed results (Box 2.6). Free economic zones provide an immediate response to pressing problems such as rising unemployment and low FDI inflows. This is the reason why both OECD and non-OECD countries have adopted this approach. In the 1920s in the US, many southern states such as Mississippi have engaged into “economic wars” with each other by offering to outside firms “recruitment subsidies”, mainly land subsidies, advantageous credit, tax exemptions, and lax requirements of environmental and labour standards. Drawing on this example, northeastern states in Brazil also sustained fiscal wars with packages of publicly funded subsidies and incentives. Lessons learnt from these experiences were that special favours such as fiscal exemptions in limited areas do not always attract sustainable investment. Three main problems can emerge: (i) such zones are often charged with dismal records of labour standards and human rights, as well as poor environmental indicators; (ii) they might be successful in attracting firms, but the costs of infrastructure and subsidies might outweigh the benefits of job creation; (iii) they may experience outright failure to attract investors, which is more often a problem of secondary and peripheral cities. Busan is exposed to such risks and bears the additional handicap of having been opened later than Incheon free economic zone.

Box 2.6. Are export processing zones always effective?

While there are countries that have realized at least some of the goals, there are others in which the offer of low-cost labour, generous concessions and enclaves with modern facilities have not outweighed other economic and political factors that have made potential investors wary of either setting up or expanding business. The result is that the performance of certain EPZs [*export processing zones*] in terms of value of inward investment, jobs and exports, has been dismal from the beginning. In short, some zones never really “took off”.

Where the state-sector financed either all or a large part of the costs of laying the capital-intensive physical infrastructure, those disappointing results assumed dramatic proportions because the social and economic costs of those ventures far outweighed the negligible benefits. Some analysts even argue that in certain cases there were no benefits, since, after more than five years of existence, occupancy rates as well as investment and production levels failed to reach the targets set for the first year of their operation. Those “worst cases” and examples of others that have so far not had a promising start, have led many observers to call into question the wisdom of promoting EPZs.

Source: ILO, “Export processing zones: addressing the social and labour issues” (<http://www.transnationale.org/pays/epz.htm>).

65. Experience in the above-mentioned countries shows that policies to attract FDI need to fulfil the following interrelated conditions to be effective⁷:

- **Have a clear specialisation and focus strategically on firms that could create synergy with local existing activities.** Recruitment policies turned to be at their worst when they remained wide, as if any kind of firm would be welcome as far as they would settle in the region. Such passive policies are likely to attract firms that will not necessarily induce any spillovers on local firms. Busan should apply selective conditions and ensure that outside firms will build on the existing local economy, for example by systematically purchasing products from local producers and creating local jobs rather than importing materials and labour force. The more strategic conditions Busan government applies in establishing clear linkages between outside and local firms beforehand, the larger the resulting spillovers and multiplier effects are likely to be on the local economy.

- **Exploit the local consumer market as a bargaining power during negotiations with potential outside investors.** Experience in OECD countries showed that some governments failed in developing a clear specialisation because they were afraid to ask outside firms for any kind of conditions and lacked knowledge about what to ask for. They promoted their region on the grounds of generic qualities that other regions or countries possessed as well (*e.g.*, cheap labour force, close access to transport infrastructure). Supply-side arguments based on production factors are however not enough when promoting a free economic zone because outside firms would have moved in anyway if such production factors had been their only reason to become interested in the region. What Busan should emphasise more exactly as a bargaining power is the size and quality of the local consumer market that it offers outside firms. Insisting on increasing purchasing power or rapid reactivity of local consumers to new products and trends could encourage foreign firms to try to be among the first to locate in Busan market. In-depth market research to promote Busan's consumer market to outside firms rather than traditional production factors could contribute to attracting more investors.
- **Build strong capacity of government officials to conduct aggressive lobbying and promotion.** Government officials should be perfectly aware of their region's economic outlook and be able to present a clear and attractive picture of their region's economy that could be relevant to a particular outside firm when travelling overseas or meeting foreign contacts. Specific education and training can help develop such promotional skills, but also close dialogue and mutual communication with Busan's business community on a regular basis. Continuous efforts towards knowledge sharing, both among government officials (for example, between personnel from the BJFEZ Authority and the Industrial Policy Division of Busan Metropolitan City government) and between government officials and business managers or industry associations, could significantly improve the credibility and attractiveness of the region.

66. Better understanding and addressing the key factors that most influence investors' locational decision-making can help maximise multiplier effects in the Busan-Jinhae free economic zone on the longer term. Above-mentioned lessons from OECD countries suggest that successful policies to attract FDI should be closely linked with a pertinent insight of the existing local economy. Busan should seize the opportunity to leap beyond traditional investment-attracting tools and trigger economic growth by diversifying its local economy according to a specialised pattern.

Specialising the local economy

67. With increasing awareness of the need to diversify and strengthen the industrial pattern of Busan, the city government has formulated a "ten strategic industries plan" in 1999. This is similar to the methodology used by the central government in August 2003 when it identified 10 strategic industries as future growth engines for the national economy⁸. In its first version, the plan focused on five traditional industries that should be supported in their restructuring process along with five innovative industries that were anticipated to drive local economy over the next years. When the new central government launched its own policy for balanced development across regions and revitalisation of regional industries in 2003, it asked all local governments to hand out a list of strategic industries that were identified as needing financial support from the central government. Busan government streamlined the initial 10 strategic industries into 4 core strategic industries and 6 endogenous strategic industries in order to concentrate its resources on the 4 key industries (Table 2.8).

Table 2.8. Ten strategic industries in Busan (2004-2008)

Initial list (1999)		Revised list (2004)	
Traditional restructuring industries	High-potential industries	Core strategic industries	Endogenous strategic industries
Automobile and parts	Port logistics	Port logistics	Finance and futures
Shipbuilding	Software	Mechanical parts and materials	Bio-marine
Footwear	Finance	Tourism and convention	Silver industry
Textile and fashion	Tourism	Film and IT	Footwear
Fisheries and processed marine products	Film		Processed marine products
			Textile and fashion

Source: Busan Metropolitan City.

68. This approach to economic development could be revised in order to attain more efficient results. As in many other old industrialised regions, Busan's comparative advantages in labour-intensive and traditional manufacturing industries have gradually eroded *vis-à-vis* China and other emerging lower-cost countries. Yet it is questionable whether all restructuring and emerging industries do need intensive support with public funds industries. Such observations suggest that some sectors might have developed via market forces in any case. This makes it difficult to justify providing top-down sectoral subsidies to a large list of industries. Although the plan was based on input-output analysis and path-dependent methodology, the task of selecting industries and determining risks is not always immune from influence from local business interests. What special advantage Busan holds for some of the identified industries is not altogether clear in terms of market potential, basic infrastructure or R&D.

69. The identification of accurate strategic industries requires full co-ordination between Busan authorities and the central government *ex ante*. The central government is launching a similar policy for the promotion of regional industries. The Ministry of Industry and the Ministry of Planning and Budget have recently published a plan to develop strategic industries in four regions (Gyeongnam, Daegu and Gwangju besides Busan). The subsidy plan targeting Busan is focusing on three sectors already included in the ten strategic industries plan of the city government: footwear industry, bio-marine, and parts and materials. Among them, footwear industry had already been targeted as a strategic industry during the first round of the central government's plan for regional industries (2000-2003), totalling an investment of more than KRW 205 billion. According to a study from the Korea Development Institute and the Korea Institute for Economics and Trade, the actual output of this plan remains limited because most of the funds were spent in infrastructure construction such as the Busan Centre for the Promotion of Footwear Industry, while firms had no access to functional business services. The second round of the plan called "Dream Map 21" does not seem to correct this weakness, since the majority of planned funds are absorbed by land purchase, construction and equipment costs against an insignificant portion for actual R&D activities. In sum, public investments should be co-ordinated between the different levels of government and target soft infrastructure rather than purely hard infrastructure in order to optimise results.

How to develop clusters?

70. Korea is currently experimenting with cluster-type policies. Such policies are implemented under various names and forms (industrial clusters, knowledge clusters, metropolitan-wide clusters, local clusters, etc.) and result in an intricate mosaic in Busan (Table 2.9). The ultimate goal is to engender balanced regional development, and policymakers are tempted to compel this objective by creating specific spaces in fixed areas and deliberately locating industries and firms there. A zoning approach is visible in several other initiatives in Busan, such as the Noksan Industrial Complex, the newly opened free economic zone or the numerous industrial support centres. It is a fairly conventional and top-down approach which can become problematic, notably when non-prioritised firms try to locate in such areas. This scheme might contribute to the territorial harmonisation of economic activity to some extent. Yet its scope and its output could be improved. In this respect, the wide array of cluster experiences in several OECD countries suggests helpful lessons for Busan. A strong specialisation in a high-flying sector can play the role of an engine for growth for some time. This was the case in Helsinki, for example, with the ICT sector. Conversely, cities and regions can benefit from clustering in several diversified sets of specialised industries if those are endowed with clear competitive advantages, as was done in Montreal with innovative clusters in aerospace and bio-technology (Box 2.7).

Table 2.9. Cluster plans by central government and Busan Metropolitan City Government

Central government	<i>Industrial Cluster Activation Act</i> (November 2002): a reworking of the existing Industry Distribution Act by the Ministry of Commerce, Industry and Energy. Provided for the first time a legal basis for the creation of industrial clusters
	<i>Five-Year Plan for Industrial Clusters</i> (strategic industries) in four regions: Daegu (1999-2003), Busan (2000-2003), Gwangju (2000-2003), Gyeongnam (2000-2004). Government funding was later expanded to the remaining nine regions in 2002, except for the capital region.
Busan Metropolitan City government	<i>High-Tech Parts and Materials Cluster</i> . west Busan
	<i>Bio-Marine Cluster</i> . east Busan
	<i>Footwear Cluster</i>
Adjacent governments	<i>Gyeongnam Machinery Belt Cluster</i> (2000-2004)
	<i>Ulsan Auto Valley Cluster</i> (2002-2006)

Box 2.7. Two examples of clusters in OECD metropolitan regions: Helsinki and Montreal

Helsinki: one large powerful cluster

The leading global mobile vendor since the early 1990s and at least five times larger than Finland's next largest ICT manufacturer, Nokia has located its headquarters in Espoo, just outside Helsinki. Helsinki has been the historical site of developed communication systems with 48% of ICT jobs in Finland in 1998. The specialisation of the Finnish ICT cluster has contributed to significant agglomeration economies and territorial capital, while enabling the key locations to become more competitive and thereby attracting more firms. However, this specialisation has also resulted in two typical threats. First, activities have concentrated in certain areas. While this is not necessarily detrimental to other areas, it has been perceived to worsen territorial disparities. Second, and more importantly, a region's development is more fragile if it is dependent on a single sector rather than several sectors. Informed policies and strategies attempt to diversify the current base of competencies and capabilities, but far more needs to be done.

Box 2.7. Two examples of clusters in OECD metropolitan regions: Helsinki and Montreal (continued)*Montreal: a diversified set of clusters*

Three main categories of clusters can be analysed in Montreal: established competitive clusters, emerging clusters and more horizontal clusters. The aerospace sector offers an example of *established competitive cluster*. Montreal is a leader in this heavily concentrated sector, with 130 companies that have 50% of their business volume in the aerospace industry, representing some 28 500 jobs. Nearly 50% of these jobs depend on a single company (Bombardier), and almost 80% of all jobs with the top seven prime contractors (including Bell Helicopter, Pratt & Whitney Canada etc.). The success of Montreal and Canada's aerospace industry has relied on strong innovation capacity with R&D investments over CAD 500 million in 2000, thanks to active involvement of education and research institutions and collaborative R&D between the public and private sectors. *Emerging clusters* in Montreal include culture and entertainment (36 400 jobs in film industry for example). Each of the five administrative regions in the metropolitan region of Montreal (Montreal, Laval, Montérégie, Laurentides, Lanaudière) has developed individual strategies based on local tourism which clearly limits the opportunities for innovative marketing and for the creation of new tourism packages based on linked tourism sites. Still, some organisations such as Culture Montreal have been successful in building networks among different entities in specific localities and in specific sectors. More significant synergies could be developed in this field, along with joint initiatives with the fashion cluster on cultural initiatives. *Horizontal clusters* have been identified in IT industry (97 500 employees), logistics and distribution (160 000 people employed in transport, logistics, distribution, wholesale trade). Their development will depend among other factors on the quality of inter-firm relations, innovation support and the availability of high-skilled workers.

Source: OECD Territorial Reviews of Helsinki (2003) and Montreal (2004).

71. On this basis, it seems neither feasible nor desirable for public policies in Busan to try to cluster every single industry independently of its size or characteristics. Facilities such as industrial support centres are not enough to build clusters either. Hard infrastructure accumulated in Busan so far should thus be considered as a first step forward and a potential asset that needs to be valorised next. Most of all, favourable cross-sectoral conditions for cluster development and knowledge spillovers need to be reinforced for the city to make the shift towards innovation-based regional development.

The shift towards innovation-based regional development

72. The first set of regional cluster policies that were launched recently in Korea and Busan could constitute a starting point for economic development policies. But they are likely to be wide of the mark if they remain barely sector-specific and keep to a subsidy-distributive approach. Their results would then not differ significantly from those of classic top-down subsidies, which entail relatively few synergistic effects and weak endogenous dynamics for growth. This danger could be dismissed if economic development policies were shaped by a broader vision and strategy of innovation-based regional development. Both central and local governments in Busan have shown keen interest in the concept of a regional innovation system (RIS) (Box 2.8) and have readily adopted the term in their economic development plans. Empirical evidence suggests that while RIS is an attractive policy orientation, its viability and adequacy to local conditions need yet to be assessed⁹. Turning the region into a RIS should not be an objective in itself, but a framework for thinking which can help to design innovative policies and to encourage the dynamics for growth¹⁰.

Box 2.8. Regional innovation system

The concept of regional innovation system (RIS) has been introduced in economic theory during the early 1990s. It describes a "concentration of interdependent firms within the same or adjacent industrial sectors in a small geographic area" (Isaksen and Hauge, 2002). This systemic approach to innovation recognises that innovation stems from interactions within a network of different actors including firms and institutions, whereas it is seldom the result of efforts within a single firm. While *national* systems of innovation are invoked to explain differences in innovation performances between countries, *regions* are increasingly recognised as the cradle of networks of innovators, local clusters and cross-fertilising effects of research institutions (Lundvall and Borras, 1997). An RIS can stretch across several sectors and clusters as long as their constituent firms interact. At the same time, clusters can develop close links with knowledge organisation outside the RIS (Asheim, 2002).

Better co-ordination of knowledge resources

73. As a large and economically dynamic region, Busan does have an available knowledge pool (universities, R&D infrastructure) but it needs to better co-ordinate existing knowledge in order to collect innovative output. In particular, its scattered resources in terms of research facilities often dilute potential opportunities for innovation. Although it ranks fourth in Korea in terms of R&D expenditure per capita (Table 2.10), Busan is characterised by the proliferation of relatively small-scale research bodies in various industrial sectors (regional research centres, support centres for specific industries) that remain sometimes underused due to the lack of critical mass and of financial support. Busan hosts a few national research bodies, such as a branch of the Korea Institute of Radiological and Medical Sciences (KIRMS), the National Fisheries Research and Development Institute (NFRDI) and the Asian Institute of Nano Bio Science and Technology (ANB). A practical way to add some weight to local research capacity could be to attract more branches of large national or regional research institutes that could take on local leadership and generate spillover effects on the existing small- and medium-size research bodies. The national context offers opportunities to revitalise local research, thanks to the central government's effort to decentralise major public institutions outside the capital area with the Special Law on Balanced National Development that was passed in December 2003. Busan has applied for the relocation of public institutions related with its port economy such as the Korea Ocean Research and Development Institute (KORDI) and the Korea Institute of Maritime and Fisheries Technology (KIMFT), but also to its emerging industries such as the film industry with the Korean Film Archive. The final decision is expected to be announced in December 2004.

Table 2.10. R&D budget by city and province in 2002

City/Province	R&D share in budget (%)	R&D budget per capita (KRW million)	Rank
Jeju	0.78	1.46	1
Jeonnam	1.03	1.39	2
Seoul	0.66	1.14	3
Busan	0.78	1.13	4
Gwangju	0.78	1.11	5
Incheon	1.04	1.07	6
Daegu	1.05	1.02	7
Chungnam	0.94	1.00	8
Daejeon	1.17	0.99	9
Gangwon	1.44	0.98	10
Ulsan	0.53	0.98	11
Gyeongnam	0.75	0.91	12
Jeonbuk	1.28	0.89	13
Chungbuk	1.74	0.88	14
Gyeongbuk	0.74	0.82	15
Gyeonggi	1.19	0.73	16
KOREA	0.93	0.99	-

Source: Busan Metropolitan City, Division of Industrial Development.

74. Regional universities are certainly well-positioned to become a driving force in innovation networks and have already started to take useful steps in that direction¹¹. Still, regional universities need to improve the quality of their R&D and re-balance their teaching, research and regional economic engagement functions. The renaissance of regional universities is not a challenge isolated to Busan, but is in fact evident across Korea and other OECD Member countries. At present, the central government is to invest around KRW 1067.5 billion (KRW 340 billion per year starting from 2004 over 5 years) for the revitalisation of regional universities outside the capital area. Also, local governments are investing accordingly in research centres in these universities to help them accomplish their new mandate. Universities located in Busan will receive KRW 27 billion (KRW 134.8 billion over 5 years).

75. Despite this existing pool of knowledge and research, the obvious lack of knowledge transfer from research institutes and universities to firms needs to be solved in order to link production and diffusion of innovation constructively. According to a survey by Busan University, only 7.3% of firms pick innovative ideas from local universities (Table 2.11). Even the few efforts from large firms such as Renault-Samsung Motors to join in co-operative research initiatives with local universities have been aborted because the level of research in the universities was not attractive enough to firms. Such a mismatch between the supply of research and the needs of firms due to sub-optimal research programmes ought to be corrected.

Table 2.11. Source of innovative ideas for Busan firms

% of 1 000 firms

Source of innovative ideas	Yes	No
Universities	7.3	92.7
Government-funded research institutes	4.2	95.8
Public laboratories	3.8	96.2
Societies and leagues	5.3	94.7
Research unions	2.8	97.2
Private research institutes	3.3	96.7

Source: Asian Institute for Regional Innovation, December 2003.

76. Research infrastructure and concentration of knowledge *per se* are not enough to make a regional innovation system work well. Its strength also depends on the existence of integration mechanisms and actors providing guidance to combine knowledge inputs from the different partners. In other words, regional innovation organisers are critical for the realisation of new products and processes, and large firms can often play this leader role. In Busan, large firms do not seem to fulfil this function. None of the top 100 firms (ranked by their turnover) in Korea is located in Busan¹². Large firms represent only 0.4% of total firms in Busan while headquarters of the remaining firms are located elsewhere, often in Seoul or in Gyeonggi province. This means that research functions are kept closer to the decision centres outside the Busan region. For example, Renault Samsung Motors, the biggest employer in Busan, recently transferred its technical centre (and the purchasing and cost analysis departments are most likely to follow) in Gyiheung in the capital region because most of the labour force it required, *i.e.* engineers for R&D and design functions, is concentrated near Seoul.

77. When turning to the remaining 99.6% SMEs in Busan, it appears that most of them are not undertaking any innovative activities and consequently just stand out of the RIS, because small firms are traditionally reluctant to take the risk of committing themselves to research. Even though some SMEs in Busan are grouped in a few horizontal associations to share practices and ideas, inter-SME co-operation

should be further exploited and demand for R&D needs to be properly addressed, especially in traditional sectors. Many small manufacturing firms exhibit a weak capacity to adapt to changing business conditions, while 68% of small venture business¹³ concentrates in Seoul and Gyeonggi province against only 4.9% in Busan and Ulsan. This trend points to an important problem because the role of new firms should be taken into consideration in producing new ideas and nurture innovation. Venture capital investment is particularly low in Busan with only 0.6% of the Korea total in 2003 (KRW 17.5 billion). According to this indicator, the multiplication of measures to support entrepreneurship from different levels of government and universities has not proved to be efficient. Considering that there are already 484 incubators in Busan, increasing their number seems unlikely to trigger off positive market responses. More attention should be paid instead to enhancing their quality and activating regional venture funds through co-ordinated local and central government initiatives.

78. Many OECD countries, including Korea, have established specific models such as science parks and technical centres to orchestrate the different research initiatives. In Busan, the creation of the Busan Techno Park in 2000 aimed at building a more ambitious system of co-operation between research institutions, universities and firms. Its objective is also to enhance competitiveness of regional firms through technical progress and fostering new technology business start-ups. Results seem modest so far with about 20 firms hosted in the park, most of them being SMEs specialised in different industries (machinery, nano-technology, IT, etc.). Under the current conditions, BTP is mainly fulfilling incubator-like rather than technopole or technopark functions and has yet to gain prominence. The central government had also tried to induce co-operative behaviour among firms and institutions in a few specialised technologies in the different regions and notably in Busan. In the footwear industry for example, a regional consortium was formed in 2000 among academics, industry representatives and personnel from research centres¹⁴, with a relatively limited budget of USD 50 million over 4 years¹⁵.

79. Along with the new central government's impetus to achieve balanced regional development, Busan could draw benefits from the support from central government and integrate its capacities into a better organised regional innovation system. Ministry of Science and Technology grants to research programmes in Busan were the highest in Korea in 2001, with USD 1.4 million for 7 projects. Successful examples of regional innovation policies in OECD countries such as Spain and Italy emphasise the impact of intergovernmental collaboration, policy focus on clusters and targeted spending on the quality of regional innovation (Box 2.9). Such benchmarking could motivate stronger initiatives in Busan to build on its regional innovation capital.

Box 2.9. Regional innovation policy profiles in Catalonia (Spain) and Liguria (Italy)

Although the central government in Spain has in principle the responsibility for supporting and co-ordinating research activities, regions are also involved in the implementation of science and technology (S&T) policies. In that context, in Catalonia (a region around Barcelona with 6.2 million people and a GDRP of EUR 113 billion), the regional government (*Generalitat*) has developed its own innovation policy. Since the accession of Spain to the EU, the region has also benefited from European programmes for S&T. Much progress has been accomplished over the last 10 years. Unemployment rate has receded from 12.2% to 8.8% and GDP per capita has nearly doubled during the 1990s. In addition, the number of researchers has been multiplied by 2 and the number of recognised research groups by 5. Nevertheless, there is still some way to go to reach the RIS level. R&D spending (only 1.1% of GDP in 2001) and researcher population size remain below the EU level though above Spanish level. Applications for patents stand between 1 and 2% of EU level and the number of companies engaging in R&D and innovation activities is still modest. However, a catching up dynamics is clearly on the way. Catalonia is now ranked as the 29th region in Europe against 43rd in 1995 for its performance in S&T.

Box 2.9. Regional innovation policy profiles in Catalonia (Spain) and Liguria (Italy) (continued)

Among the reasons for this success, several factors can be underlined:

a) Good governance of innovation policy. A transparent division of roles was established between the central government and the *Generalitat*. Central government has no local antenna in the region to provide economic assistance, while the regional government holds a clear mandate in the implementation of S&T policies. Vertical co-ordination has functioned well to provide complementary funding to new entrepreneurs, for example. In addition, policy is increasingly shaped around a small number of agencies that channel grants and resources to research infrastructure, scholarship and joint R&D with the private sector. Most active in this field are the Department of University, Research and Information Society (DURSI), the Centre for Innovation and Business Development (CIDEM) or the new Agency for Administration of University and Research Grant (AGAUR). Horizontal co-ordination has also been improved recently through a re-focusing of research fields around strategic priorities for the region with 8 centres of reference and thematic networks.

b) Policy focus on clusters and regional economic potentials. Several micro-clusters have been identified within a wide range of activities including wooden toys, jewellery, electronics, meat, agro-food and furniture. Initiatives have been taken by the *Generalitat* to facilitate access to market, stimulate foreign direct investment, elaborate labels and strengthen product quality control. In clusters exposed to severe competition from low cost countries (e.g. leather), specialisation on specific niches as well as additional effort on research have been encouraged.

c) Strong priority given to innovation spending. In the wake of the European RITTS programme¹⁶, an innovation plan has been set up for 2001-2004 and focuses on innovation management, technology markets, entrepreneurial spirit and digitisation of companies, mobilising a total of EUR 130 million. Within the framework of this plan, it is expected that the Xarxa IT network¹⁷ of technological innovation support centres (70 of these centres have been installed and labelled in higher education institutions and public R&D entities) will significantly increase their outputs and research contracts.

Another example of a successful RIS is given by the Liguria region in Italy. The relative contribution of Liguria to the national GDP of Italy is less than Catalonia's share of Spanish GDP. But Liguria is investing more in R&D in relative terms than the rest of country and is a component of the northern part of Italy which concentrates 80% of research undertaken in the country. The regional economy of Liguria is also strongly influenced by a big port city, Genoa, which underpins the economy through its naval, merchant and financial activities. According to the Community Innovation Survey, innovative firms account for 34% of the total number of firms, which is a relatively high level by Italian standards. High-tech sector such as fine chemistry exhibits the highest concentration of inventors in the country¹⁸.

Exploiting regional innovation capital

80. Busan exhibits several encouraging signs of identifying its regional innovation capital and exploiting it through a structured innovation policy. The initial spark was given by the central government that decided to fuel regional development by building regional innovation systems and thus asked local governments to draft their own "regional innovation plans". In the process of designing its own "2004-2008 Five-Year Regional Innovation Plan", Busan launched a Regional Innovation Agency composed of 56 representatives from city government, business community, universities, research institutes, and civil society in April 2004. The agency is located in Busan Techno Park and its role will be to monitor regional innovation policy in the Busan area, acting as a co-ordinator and networking facilitator. The agency will then propose new policy lines to the central government, thus following a strategy similar to the European RIS approach. Although this first initiative remains lightly institutionalised at this point, the role of the Regional Innovation Agency will be crucial in helping specialise R&D efforts into key fields and building complementarities among government bodies, firms, universities and research institutes. In this regard, the bond that will bring all stakeholders together and keep the innovation system active is human resources, and thus joint efforts from all parties are required to cultivate skills in Busan. This policy could be based on two main directions: (i) promoting industrial liaison programmes; and (ii) developing inter-firm expertise pooling.

Promoting industrial liaison programmes

81. Similar to many OECD cities including large cities, Busan has been suffering from a severe brain drain towards the capital region. Even though the educational divide between the capital area and the rest of the country, which is particularly critical in Korea, is slightly less wide in the case of Busan, the relative mismatch between the curriculum of local universities and the needs of local firms suggests that the capacities of the local talent pool could be better exploited. First of all, the same curriculum is duplicated in several different universities and there is a shortage of specialised human capital that could match the needs of regional industries on the Busan labour market. Inadequate supply of skills then hinders the development of small firms due to the lack of intermediate level qualification. In addition, brain drain towards the capital region may constitute a further deterrent to the implantation of large firms' R&D and managerial functions in the Busan area. In order to remove such obstacles to synergistic effects, links between education and business communities could be significantly reinforced in Busan by implementing industrial liaison programmes or other forms of liaison activities that have been successfully operated in several other OECD countries (Box 2.10).

Box 2.10. Examples of industrial liaison programmes in OECD countries

One of the best known models of linkages between universities and companies is the MIT Industrial Liaison Programme in the US. After paying a membership fee that varies according to their size, companies have unlimited access to specialised information services and seminar series, a monthly newsletter that includes details of ongoing research and outlines new inventions, the directory of MIT research activity organised by area of expertise to make it easier to track down with specific interest, faculty visits and expert meetings for companies that often result in consultancy or research sponsorship. The programme is particularly attractive to companies because it is managed by a panel of Industrial Liaison Officers (ILO), each one being responsible for a focused portfolio of companies with the responsibility to serve their unique interests and needs.

While this fee-paying model might be perceived as a special case by smaller universities that do not expect to derive the same level of commitment from companies, other universities have developed "community clubs" for companies interested in the university's work. In the UK for example, Cambridge University's Computer Laboratory and Newcastle University's Centre for Software Reliability have both created a club that invites companies to seminars and symposia or distribute copies of technical reports and organise exchanges of materials.

On a more individual basis, companies can also sign consultancy agreements with an academic. There exist many various forms of consultancy agreements, from small-scale private arrangements to broader collaborative work that may result in the hiring of graduate students in the consulting company, future research sponsorship agreements or grants of equipment. This also represents a way for SMEs and universities to link together despite the lack of a natural basis for collaboration because an increasing number of small high-tech companies are becoming research-focused and many start-ups are born out of specific knowledge transfers.

Developing inter-firm expertise pooling

82. Inter-firm co-operation could be further enhanced as well. In particular, small firms should be encouraged to develop group learning through broader interaction with one another and with well-established large companies. Inter-SME co-operation has been developed under several forms in many countries, including the proposal to set up a "regional expertise fund" in Nord-Pas-de-Calais, an old industrialised region in France, in order to promote know-how transfers among SMEs. Concerning co-operation between small and large firms, an inspiring example could be the Plato approach initiated in Belgium and replicated in many European countries (Box 2.11). Plato is based on a pooling of expertise of and for SME owners and managers through structured networking combined with the "parenting"

principle, *i.e.* tutorship by a large firm. Following this approach, Busan could be the locus of a pilot experimentation that could subsequently be extended to Korea as a whole. Other examples include initiatives such as Milano under the RITTS programme of the EU, where a consortium of SMEs (called Ansaldo Energia S.p.a) was established to facilitate access by member SMEs to large companies' laboratories and allow them to test materials.

Box 2.11. Example of expertise pooling: Plato

The concept of expertise pooling is based on learning by interaction among participating SMEs on the one hand, and between SMEs and large well-established companies playing the role of tutors on the other hand. The first Plato initiative started in 1988 in the Turnhout district in the Flemish region (Belgium). There are currently more than 4 000 small firms and 300 large companies involved in the Plato network. It has been replicated since in many European countries including Denmark, France, Germany, Ireland, the Netherlands, Sweden and the UK. Typically, Plato is a 2-year programme addressing the managerial needs of regional networks of SMEs. Small business owners and managers are forming groups of 8-12 members. Each group has usually two leaders representing large local parenthood companies. In general, it concerns relatively mature businesses with less than 50 employees. According to evaluation studies¹⁹, group dynamics exert a decisive impact on the success of the programme by fostering knowledge transfer and mutual learning. Plato is demand-oriented and provides low cost access to large firms and to expertise. It also opens the opportunity for member firms to participate to wider regional, national and EU networks. While the programme is usually subsidised by regions, states and EU commission, it could also be partially self-financed.

83. Altogether, more efficient knowledge transfers could be achieved in Busan by setting up a harmonised system of incentives in favour of linkages between research and business that activate bottom-up innovative ideas based on local know-how. The currently separate and often entangled policies on clusters, R&D, regional innovation and education should be federated into a comprehensive policy for regional economic development. Rather than creating additional structures that might overload the institutional framework, however, such a policy could capitalise on existing structures. Part of the resources spent in multiplying “hard” infrastructure for research could be converted into “soft” investment in order to equip the newly established Regional Innovation Agency with appropriate staff and financial resources.

Strengthening an innovation system at the regional level

84. At some stage, the mandate of the agency could be broadened to a regional scale to embrace the Southeast area (Busan, Gyeongnam, Ulsan). Several factors militate in favour of extending the RIS beyond the boundaries of Busan Metropolitan City. First, the size of clusters is often too small in Busan compared with areas of similar population in the OECD area²⁰. Encompassing the Southeast region's 9 million inhabitants could help to reach the critical mass in that regard. Accounting for more than 40% of national GDP, this region also represents 90% of the country's shipbuilding and parts output, 42% of all automobile production, 33% of the machinery industry, 52% of transport machinery and 32% of assembled metals. The very industries that make up the backbone of the Southeast region's economy, including shipbuilding, automobile, machinery and footwear, are expected to be overtaken by rapidly growing Chinese firms. With a relatively short five to ten year competitive advantage over China, it is prudent for Busan, Ulsan and Gyeongnam province to maximise synergies by establishing specialised clusters, building networks and working co-operatively. Furthermore, the three sub-regions form a single cultural community with strong ties illustrated by their mutual participation in regional festivals, joint hosting of events and co-operation in the field of tourism activities. With a view to implementing its policy for balanced regional development, the central government has already identified the Busan-Ulsan-Gyeongnam area as one of the 10 Korean regions of the future in its 4th Comprehensive National Development Plan.

85. While business activities tend to expand beyond city boundaries, the current policy of regional industry promotion still applies to administrative boundaries. The central government is nevertheless planning to make an initial institutionalised attempt to encompass the larger Southeast region by establishing the Southeast Regional Cluster Planning Body. This planning body is composed of representatives from national, provincial and metropolitan city governments in charge of developing a cluster policy in the larger region. The head of the planning body is an expert nominated by the national government. In terms of selecting cluster projects, the province and the two metropolitan cities hold 60% of the voting rights while the central government controls the remaining 40%, but it may render a final decision in cases where the province and cities cannot reach any agreement. Industries that will be promoted in the region cannot participate in the planning body's discussions. National government funds invested in the establishment of a cluster are implemented through an agreement between the central government and the planning body. While this division of managerial authority is intended to encourage co-operation between the province and the metropolitan cities, each of the three partners runs a separate comprehensive support centre providing networking services, collecting customer-oriented information and offering support. So far, comprehensive support centres seem to result in three split sub-systems organised around high-tech materials and bio-marine in Busan, machinery industry in Gyeongnam and automobile parts in Ulsan.

86. Recurrent overlaps between the Southeast regional cluster plan and other parallel cluster projects are causing confusion in funds allocation and policy orientations. Close collaboration is necessary in order to implement co-operative infrastructure projects under discussion in the region, such as establishing a knowledge-based network by hiring technical experts for strategic industries, creating a technical innovation centre or implementing a Southeast regional R&D programme to promote the development of key technologies. This is a field where the central government could act as a co-ordinator and a facilitator of the cluster projects set up by regional authorities in order to link them to national competitiveness. Bottom-up initiatives should also focus more proactively on contributing to balanced development across regions and towards building a regional engine for growth. Despite a clear opportunity to ensure mutual prosperity and generate synergistic effects, co-operation between Busan and adjacent Ulsan and Gyeongnam regions is still hampered by internal competition and several as yet unresolved conflicts, including the name of the new port and the financing of road construction.

87. Broadening the mandate of the newly created Regional Innovation Agency to the region eventually could help firms in the transborder area to tap complementary knowledge in the three sub-regions and to pool resources. It is crucial that central, provincial, city governments as well as the private sector and civil society initiate close dialogue to reach a consensus on the Agency's role to monitor regional innovation policy. Once its mandate has been clearly defined and matched by adequate resources, the Agency could collect statistical information about the region, map the different clusters, undertake strategic planning and organise technological watch for regional firms.

Conclusion

88. The increasing challenges that Busan is facing call for rapid clarification of development policy objectives. Busan has the opportunity to become much more than just a strong second city that follows after the capital. Busan could very well develop into a core city driving national competitiveness. Many cities are already aiming at growing into core cities in the UK and an increasing number of other OECD countries, and Busan could fit in this strategy by overhauling its development policies. To this end, it is essential that traditional sector-specific policies be dropped in favour of integrated policies that strive to identify regional comparative advantages and exploit regional innovation capital by activating synergistic effects. The most important task in Busan and its region is to foster a culture of mutual trust and collective learning to enhance overall competitiveness. Korea is in an era when central government is keenly promoting balanced development across regions as its first priority. This shift in policy attitudes and action

affords Busan the opportunity to go beyond being a passive recipient of top-down aid policies, and become instead a strong pioneer in regional competitiveness and an active contributor to national growth. In order for this challenge to be met properly, the second priority on Korea's national policy agenda, decentralisation, needs to be put into practice through the active modernisation of governance in Busan.

NOTES

1. In the total of 11 members, there are three representatives from shipping companies, one representative from shipping unions, three professors and four experts related to ports.
2. Empty containers have been analysed to be largely due to the imbalances in production versus consumption between rich and less rich economies.
3. The 7th International Conference of Cities and Ports in 2000 concluded that “port cities must now create investment and development programs that will enhance their quality of life as a desirable maritime or riverside metropolis. Local environmental resources must be preserved and the social and cultural development of the local community supported if sustainability is to be achieved. Each port city must define a policy for overall development that takes on broad ecological and social issues”. The International Association of Cities and Ports (IACP), which is dedicated to promoting “real partnerships between these two ‘worlds’ – the city and its port”, has as its theme for the 2004 annual conference “Modernity and Identity. It stated that “the modernity of a port city is then expressed in its capacity to participate in these new worldwide networks, to integrate them in the logics of their political, economic and social choices, to translate them in terms of infrastructure, of equipment and installations and of professional training. Responding to this requirement of modernity is that of identity. Keeping its cultural reference points, valorising its acquired advantages and affirming its ambitions in terms of sustainable development and quality of life are the indispensable corollaries to any development project”.
4. Still, there were some criticisms that co-operation had been too harshly driven by regionalist competition against Seoul and Jeju.
5. Busan Development Institute forecasted tremendous economic effects of the APEC: direct effects (resulting from the travel and stay expenditures of around 8000 participants) have been estimated up to KRW 236.9 billion, including KRW 39 billion for food and accommodation, KRW 32.5 billion for transportation, KRW 27.8 billion for real estate and business services. However, the economic impact of an event can be measured by the difference between the value created by the event and the opportunity cost of resources used for the event. Although it is often overlooked in many analyses, the opportunity cost of an event is a critical factor. While it is a hypothetical exercise because it attempts to describe “what would have happened if the mega-event had not taken place”, statistical sources are generally able to describe “normal business” for a particular period of time affected by a mega-event. The challenge lies in assessing to what extent this normal business is disturbed by the mega-event. If the mega-event is very dominating and requires a considerable share of available resources, one may assume “displacement effects”, *i.e.* that a part of, or all, normal business is pushed out and lost (Hultkrantz, 1998).
6. FDI in Asia amounted to around USD 10 billion in 2003, and three Asian nations – China, Singapore and Hong Kong – accounted for 80% of the total. In contrast with these countries, South Korea is a supplier of FDI in Asia, and FDI from Korea to the rest of Asia is growing faster than other countries’ FDI in Korea.
7. For more precise recommendations, see Judith Tandler (2000).
8. The ten strategic industries will receive an investment of KRW 400 billion in 2004 and include: bio-medical products, computer displays, semiconductors, batteries, automobile, intelligent robots, digital television and broadcasting, mobile communications, intelligent home networks and digital content and software solutions.
9. RIS are still a matter of debate in the economic literature. It is often acknowledged that only a few regions can qualify as RIS, but criteria and evidence are not clear cut. Localised learning, critical mass of knowledge and intensity of interactions between firms and knowledge and research institutions are often quoted as main factors for innovation but they are difficult to assess. What seems interesting from a policy-making perspective is to analyse the conditions that could allow the regional economy to get closer to an

RIS. The focus in this section is on the process towards RIS and on deriving policy implications from this exploratory analysis.

10. See Patrick Dubarle's paper "Regional Innovation: The Experience of OECD Countries and Implications for Korea" presented at the AIRI International Seminar in Busan on 12 November 2004.
11. One example is Busan University, which has created a think tank called the Asian Institute for Regional Innovation (AIRI). This think tank not only organises research projects and seminars but also participates in the activities of regional innovation councils in the Busan area, implements various education programmes for regional innovation and networks with overseas universities and research institutes (Japan, China, United States).
12. Only 40 Busan firms are included in the top 1 000 firms of Korea. They account for 1.1% in gross sale and 1.5% for net profit as of year 2002.
13. Venture enterprises are those with R&D expenses exceeding 5% of their sales and with patents and technological products accounting for more than half of their turnover.
14. In 2000, 12 universities and 172 companies participated in 9 projects supporting complex technologies and benefiting to a large extent to SMEs in the region.
15. Two-thirds of this funding stemmed from the Ministry of Commerce, Industry and Energy.
16. RIS/RITTS is a pilot programme funded by the European Regional Development Fund (ERDF) of the European Union and is currently developed in more than 30 European regions. A RIS programme costs EUR 0.5 million on average and is co-financed by the European Commission and the region over a two-year period. It aims at establishing bottom-up discussions and consensus among key actors in the region about innovation policy options and new ideas or projects. Within the RIS operation, the European Commission provides a network secretariat which facilitates interregional co-operation in through joint seminars and publications. It thus promotes the exchange of good practices among participating regions.
17. Xarxa IT is a network of support centres for innovation. This label has been granted to 70 centres. Conditions for becoming a member of the network are the following: (i) the centre needs to be managed by a university professor that has an entrepreneurial spirit; (ii) the centre needs to design and implement a commercial strategy of the centre focusing on quality and professionalism; (iii) the centre should not compete with private companies. Once the label has been obtained, the Catalonia government finances research contracts of experts in fiscal legal matters for a three-year period. In addition, research contracts benefit from public support (ranging from 25 to 50% of the total cost, more if the contractor is a small firm). Performances of labelled centres are evaluated on a regular basis and those that are found to be underperforming are excluded from the network.
18. See Evangelista, Iammarino, Mastrostefano and Silvani (2002).
19. See for example J. McKenzie Associates Mimeo, April 2000.
20. For example, in the Öresund, a cross-border region of 3.5 million inhabitants regrouping the Copenhagen and Malmö regions in Denmark and Sweden, the size of the IT cluster (92 000 people) and the biotech/medical clusters (32 000 workers) is considerably more important than their counterpart in Busan.

CHAPTER 3.

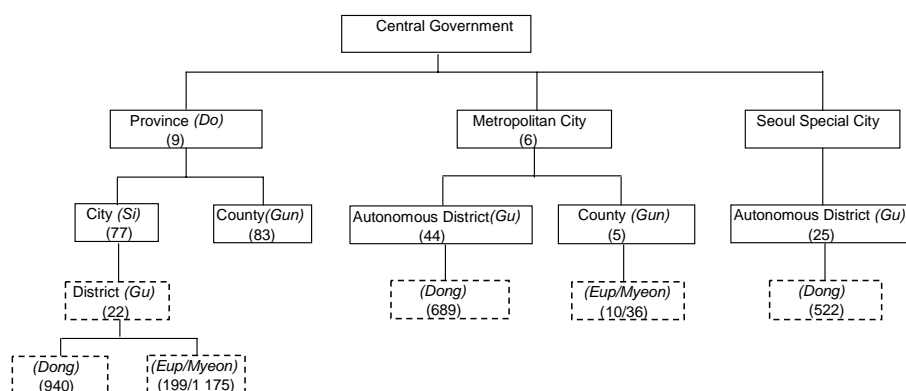
METROPOLITAN GOVERNANCE AND DECENTRALISATION

89. Over the past two decades, Korea's subnational governments have experienced the risks and opportunities of democratisation and decentralisation in the midst of the rapidly shifting economic structure of the East Asian region. This is particularly true of Korea's large urban regions such as Busan. Moreover, the pace of change for Korea's local governments has only quickened in 2003, with the new central government generating wave after wave of decentralisation initiatives. In parallel, Busan desires to bolster its standing as a world-class port while also becoming a centre of IT innovation and high-quality tourism. In order to achieve these objectives, Busan must therefore focus on: (i) exploiting the strengths of the existing Korean institutional framework to make more productive use of its existing organisational and other resources; (ii) taking best advantage of the decentralisation reforms that are being implemented, in order to maximise its chances of shaping the reforms to come rather than merely be shaped by them; (iii) investing in horizontal co-operation to build a stronger region. A coherent and integrated approach to these challenges could offer Busan the potential to upgrade its urban economy both at the national and international levels.

Korean institutional framework: strengths and challenges for Busan

90. At the outset, it is important to note that Korea has a two-tier system of local government. The upper or *regional level* includes provinces (*do*) and metropolitan cities (metropolitan *si*). The lower or *basic local level* is composed of cities (*si*, urban units), counties (*gun*, rural units) and autonomous districts (*gu*, located inside metropolitan cities). The basic local governments units – *si*, *gun* and *gu* – are further divided into three tiers of administrative sub-levels, the first of which consists of *dong*, *eup* and *myeon*, the second of *tong* and *ri*, and the last of *ban* (Figure 3.1). Busan has the status of a metropolitan city and includes, within its jurisdiction, 16 basic local governments units (15 autonomous *gu* and 1 *gun*). These latter local governments are further subdivided into the following administrative units: 2 *eup*, 3 *myeon*, 221 *dong*, 5 491 *tong*, 127 *ri* and 30 133 *ban*.

Figure 3.1. Korean territorial system



Source: OECD with data from Ministry of Government Administration and Home Affairs (MOGAHA).

91. Korea's territorial framework has been modified over time in order to reflect the country's degree of urbanisation¹ and functional specialisation. For example, metropolitan cities were granted their status as autonomous regional governments in 1995. In its current form, the Korean territorial framework presents two main advantages. The first advantage is that it is organised to respond to functional needs, thus ensuring more efficient urban management. To take a concrete example, Busan Metropolitan City's geographical territory generally matches the functional metropolitan region in terms of commuting flows; in other words, the city's administrative boundaries roughly approximate the spatial organisation of its socio-economic relations. The close fit of functional and administrative areas that we find in Korea's metropolitan cities is relatively unusual in OECD countries, where most metropolitan regions encompass various territorial units. Institutional fragmentation and the lack of horizontal co-ordination across metropolitan regions are increasingly cited as root causes of such problems as internal fiscal disparities, urban sprawl and spatial polarisation (OECD, 2003). The second advantage of Korean territorial governance at the sub-metropolitan level is that the creation of larger basic local governments units allows for better territorial management and coherent planning.

92. Yet the Korean territorial framework also exhibits some shortcomings. First, as the city expands, new autonomous districts (*gu*) are established and the boundaries of existing autonomous districts have to be redefined to take account of the newly annexed areas². This remapping process might ignore territorial homogeneity and residents' feeling of a common belonging, for the sake of administrative convenience. As a matter of fact, autonomous districts within Busan differ considerably in terms of their population and surface area³. It remains an open question whether these differences do reflect territorial distinctiveness and coherence. A second potential problem is that the scale of many of these administrative units may not suit the needs of local democracy, for which autonomous districts are responsible. In other words, the scale of Korea's basic local governments generally fits the technical needs of territorial management, but at the same time these administrative units may be too large to encourage participative local democracy.

93. As far as the regional level is concerned, placing an entire metropolitan area under the authority of a single government allows for overall control over development and land use. However, this same administrative arrangement can also pose problems for co-ordination between the metropolitan city and the province from which the former has been separated, considering especially that a metropolitan city with a population of over one million tends to exert economic and other influences beyond its own administrative boundaries. In Busan for example, commuting flows have begun to expand to several adjacent autonomous districts and cities belonging to Gyeongnam province.

94. Whatever the territorial scale chosen, the extent of urban sprawl requires that the interrelationship between the various administrative levels be addressed. As metropolitan areas experience constant socioeconomic transformation, instruments and mechanisms designed to govern them must evolve to adapt to changes in local conditions. The boundaries of a metropolitan area cannot be definitively fixed since the appropriate boundary varies according to the function or goal in question. For instance, promoting the development of clusters and enhanced inter-firm relations may require co-ordination within a territory whose boundaries differ from the functional region defined by commuting flows. In the case of Busan, there is growing recognition that a Southeast region exists and includes Ulsan Metropolitan City and Gyeongnam Province. While addressing the diverse and shifting needs of this region is no easy task, doing so offers the potential to bolster the region's overall competitiveness with Seoul as well as other international metropolitan regions. It is then crucial to consider what appropriate organisational mechanisms could foster co-operation and best enhance the region's coherence and socioeconomic performance.

Making the best of decentralisation

95. Fortunately, Busan enjoys ample opportunity to experiment and innovate in seeking to strengthen its local economic base, develop its political capacity and enhance regional co-operation. The national level is in the midst of reforming Korea's hitherto centralised state and seems supportive of local initiative. These features are evident in the national government's new priority for decentralisation and its ambitious "Roadmap" for decentralisation and deconcentration (Box 3.1).

Box 3.1. Decentralisation reforms in Korea

Locally elected government is a relatively recent phenomenon in Korea. The legal foundations of local self-government were set in place shortly after independence in 1948, but there were no locally elected officials independent of the central government until the 1980s. As administrative jurisdictions, local governments were little more than branches of the central government. In being effectively agencies of the centre, local governments had to handle all matters for which they were responsible from a national perspective. As a result, the specific interests of local areas were tightly intertwined with those of the central government. Decentralisation and local autonomy gained momentum, however, in 1988 when the *Local Autonomy Act* and the *Local Finance Act* were thoroughly reformed. In 1991, local assemblies were re-established and local councillors were elected by universal suffrage. Four years later, in 1995, Korea held its first elections for the chief executives of local governments.

Even so, the formal content of laws such as the *Local Autonomy Act* does not correspond to the reality experienced by local authorities. Top-down relations prevail and local governments still depend largely on the central government, which treats them as administrative units rather than as independent legal entities. Correspondingly, local governments tend to wait for and follow the central government's instructions. One focus of reforms thus has to be on modernising the administrative culture and institutions of local public administration, in particular by strengthening local capacity building. As for local finance, a gradual increase of fiscal resources that are at the full discretion of local governments has helped to enhance local flexibility and promote policy outcomes that better reflect local needs and demands. Compared to past decades, local governments now receive more independent tax resources and Korea has developed a well-designed tax-sharing and fiscal equalisation mechanism. Still, fiscal design strongly depends on earmarked and discretionary funds that give the central government discretionary power in virtually every area of local policy-making. This vertical fiscal design leaves local authorities with relatively little administrative and fiscal flexibility.

The decentralisation process continues apace in Korea, however, and across a wide variety of fronts. At the institutional level, the motive force behind decentralisation is the Presidential Committee for Government Innovation and Decentralisation (PCGID)⁴. The PCGID was set up in April 2003, with 20 members on the main committee, six executive committees, task force teams, an advisory board, an office of planning and management, and various subcommittees of 4 cabinet ministers and other participants. It is thus a large and very influential committee. The committee is also quite productive, and has drafted the primary "Roadmap" that is guiding an ambitious, 5-year process of decentralisation as well as administrative reform, human resources management reform, fiscal reform, and e-government. A national committee called the "Presidential Commission on Devolution Promotion for Local Authorities" will decide which responsibilities will be transferred to provinces and cities and basic local governments⁵. It is possible that in the implementation of the law there will be some asymmetries between local governments, but such asymmetries are not expected to be significant. The pace of drafting and implementing these reforms is rapid. For example, urban planning is set for decentralisation at the end of 2005, while decentralisation of education and policing are also under review and slated to be legislated by the end of 2006.

96. Then again, such a fast pace of reform entails risks and opportunities. One risk stems from the fact that the contents of the various decentralisation laws are being decided just before they are implemented. A significant fiscal decentralisation is expected to be implemented during the Roh government but its precise shape has not yet been defined. This hasty process of decentralisation inevitably creates uncertainties for local actors. A further risk is that the administrative and fiscal authority transferred to the local level might not be matched by corresponding political capacity. Even if the central government reforms the institutions of governance, the lack of will of local actors themselves could constitute a major

potential constraint. For a country with an authoritarian mode of governance, Korea has nonetheless a very activist civil society. Whether decentralisation will achieve the institutional and normative goals outlined in the Roadmap and other projects then depends on how successfully the organisations of civil society are bolstered and brought into the decision-making processes at the local level. Without this broader decentralisation, power might be devolved into too few hands and thus perhaps not be employed for the betterment of local society as a whole.

97. On the other hand, Korea's decentralisation affords local actors with plenty of opportunities and this is especially true for large urban actors such as Busan. Above all, the potential to influence and benefit from the decentralisation process is likely to be maximised when local actors put forward its own carefully designed proposals. In other words, Busan should be seeking to shape – rather than merely be shaped by – this historic process of decentralisation. Four main priorities could be enacted: (i) *Reforming local finance*. Matching benefits and tax costs more closely affords the opportunity to shore up the urban revenue base and accountability as well as further institutionalise, at the local level, Korea's impressive strides in democratisation. Moreover, there are several areas where recent innovations in “smart taxation” could be implemented in order to promote sustainable urban development and tackle the serious problem of traffic congestion; (ii) *Strengthening capacity building of local public officials*. Widening participation at different levels of government *per se* is unlikely to make local performance directly more effective and accountable. It is thus vital to upgrade local public officials' capacity for comprehensive policy-making; (iii) *Reinforcing local democracy*. Local democracy could be bolstered by giving more autonomy to the basic local governments and strengthening participative democracy at the lower level; (iv) *Involving civil society for better accountability*. Civil society affords a critical source of skills and information that public sector is strongly advised to draw on more determinedly.

Local finance

98. Busan belongs to a unitary state with highly centralised revenue collection but relatively decentralised expenditures. Once transfers from the central government to local governments and to the Special Account for Education have been set aside, the central government collects about 80% of revenues and performs roughly 77% of public spending. Conversely, local governments collect only 20% of total tax revenues but perform about 23% of all public spending (Table 3.1). These shares of local taxation and spending are roughly comparable to the other unitary systems of the OECD states (Table 3.2). In the Korean case however, the central government's mechanisms of fiscal control such as numerous small-scale targeted subsidies, together with the politico-cultural legacy of tight top-down authority in intergovernmental relations, appear to exacerbate the problem of centralisation.

Table 3.1. Share of central and local governments in revenues and expenditures in Korea, 2003

%				
	Revenues		Expenditures	
	Before transfers	After transfer from central to local governments' general budget & transfer to Special Account for Local Education	Before transfers	After transfer from central to local governments' general budget & transfer to Special Account for Local Education
Central government	80	44	77	51
Local governments	20	56	23	49
Total	100	100	100	100

Source: Ministry of Government Administration and Home Affairs (MOGAHA).

Table 3.2. Indicators of fiscal decentralisation

	Sub-national share in general government spending ¹ 2001 ³	Sub-national share in general government revenues 2001 ³	
		Share in general government revenues ²	Share of tax revenues in total tax revenues
FEDERAL COUNTRIES			
Austria	28.5	21.4	18.9
Belgium	34.0	11.3	28.6
Canada ⁴	56.5	49.9	44.1
Germany	36.1	32.4	29.2
United States	40.0	40.4	31.7
UNITARY COUNTRIES			
Denmark	57.8	34.6	33.8
Finland	35.5	24.7	22.4
France	18.6	13.1	9.3
Ireland ⁴	29.5	34.6	1.9
Italy	29.7	17.6	12.2
Japan	40.7	26.0	25.9
Sweden	43.4	32.0	30.8

1. Excluding the transfers paid to other levels of government. National Accounts data.

2. Excluding the transfers received from other levels of government and including tax sharing arrangements. National Accounts data.

3. Or latest year available: 1996 for Ireland; 1997 for Canada; 2000 for Japan.

4. Data based on SNA68 methodology.

5. Including tax sharing arrangements. Revenue Statistics data.

Source: OECD.

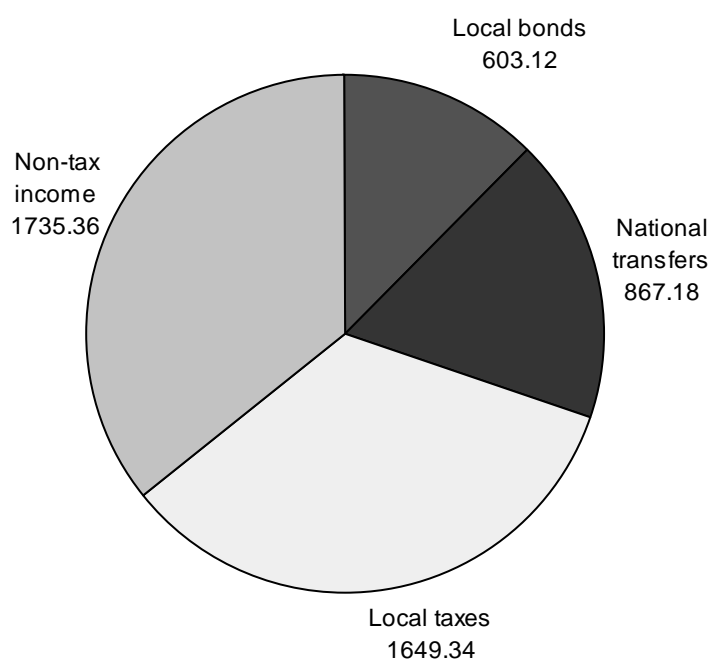
Local revenues and fiscal autonomy

99. During the 1998-2002 period, Busan's total revenues, adjusted for inflation, increased by 30% from KRW 3.7 to 4.8 trillion. Yet this rate of increase was lower than the 66% rate of increase in total national revenues. Moreover, the increase in Busan's local revenues is in part due to the 2001 shift of a portion of the national-level education tax to local governments. As a result, this Local Education Tax provided 13% of Busan's revenues that fiscal year.

100. The revenues of local governments in Korea are composed of local taxes, non-tax revenues⁶, intergovernmental grants and local bonds. In 2003, these four categories accounted respectively for 36.9%, 25.6%, 34.6% and 2.9% of total local governments' revenues and were distributed differently in the budget of local governments. As is true of other metropolitan cities, Busan's fiscal autonomy exceeds that of other local governments with the exception of Seoul. Busan's share of own revenues (tax and non-tax) is indeed higher than the national average. In 2002, it amounted to 70% compared to 54.8% for the national average (Figure 3.2). The fiscal independence index (FII)⁷ again confirmed the stronger fiscal capacity of the metropolitan cities (average of 82.2% in 2003) as compared to provinces (39.4%), cities (38%), counties (16.3%) and districts (42.3%), but this fiscal capacity remained below Seoul (95.9%) (Table 3.3).

Figure 3.2. Busan Metropolitan City revenue, 2002

KRW billion adjusted for inflation



Source: Busan Metropolitan City.

Table 3.3. Financial independence ratio of local governments, 1995-2002

Year	National average (net base)	Seoul (net base)	Other metropolitan cities (gross base)	Busan (net base)	Provinces (gross base)	Cities (gross base)	Counties (gross base)	Autonomous districts (gross base)
1995	63.5	98.0	97.3	84.8	46.7	53.7	23.8	54.3
1996	62.2	98.5	89.9	89.6	43.1	53.4	22.5	53.0
1997	63.0	98.4	89.4	87.8	42.5	53.3	21.2	51.6
1998	63.4	98.8	90.0	88.4	42.1	54.1	22.9	49.7
1999	59.6	90.2	81.8	81.8	38.3	52.0	23.4	52.3
2000	59.4	95.3	84.8	81.9	37.9	50.6	22.0	46.9
2001	57.6	95.6	82.9	74.4	35.6	43.4	18.1	45.0
2002	54.8	95.6	79.8	70.1	34.6	40.2	17.4	45.1
2003	56.3	95.9	82.2	75.4	39.4	38.0	16.3	42.3

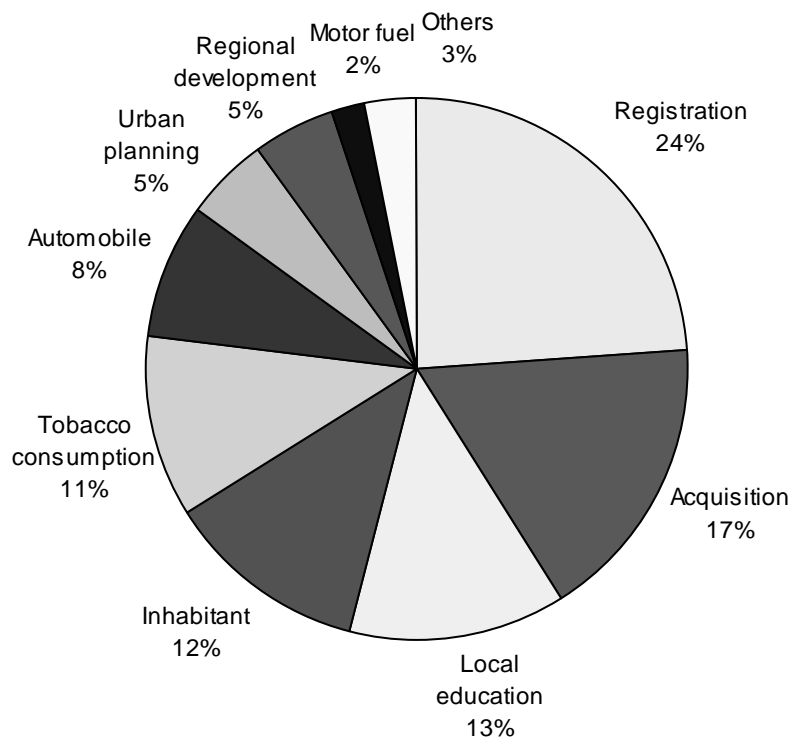
Source: Ministry of Government Administration and Home Affairs (MOGAHA).

Local taxes

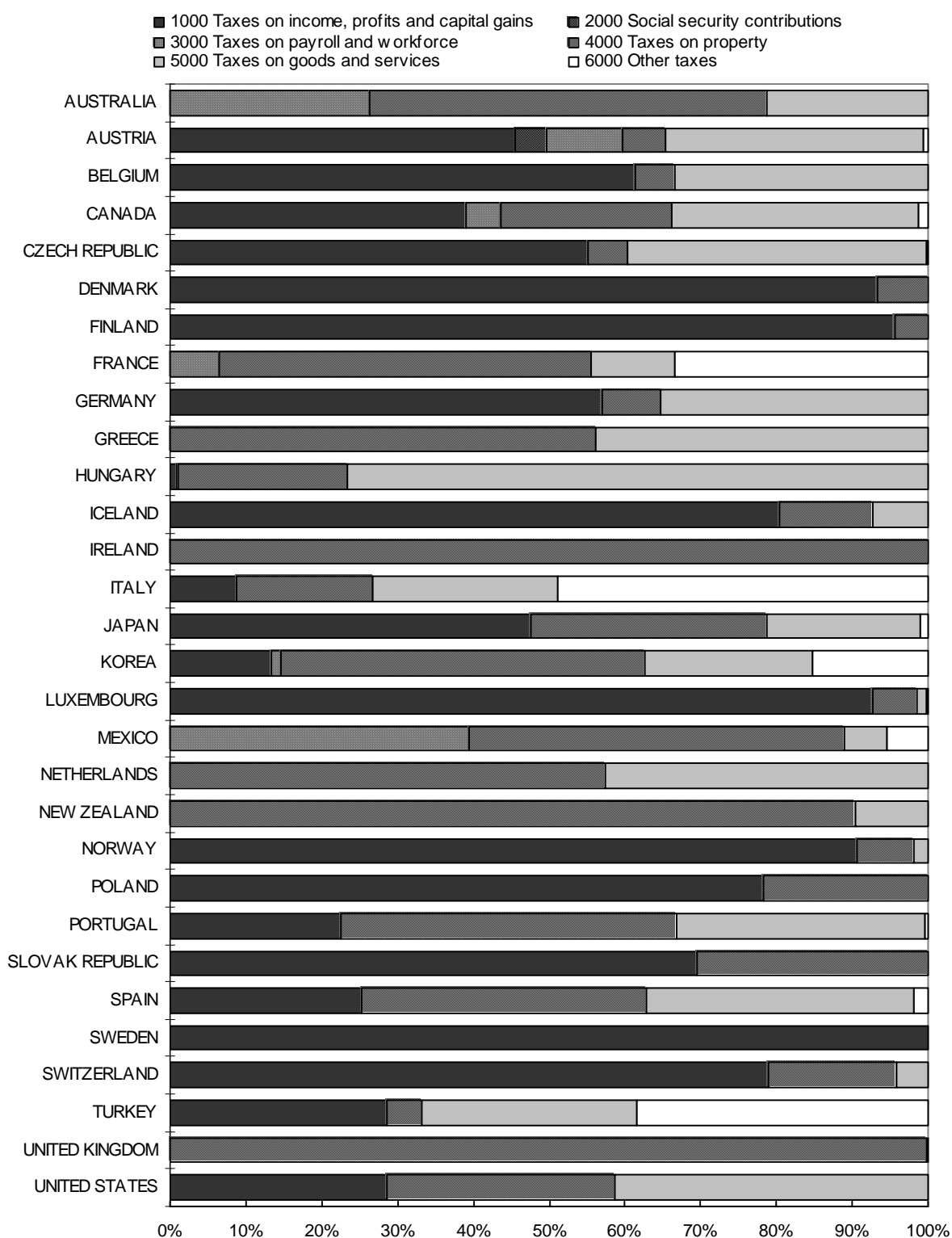
101. The Korean intergovernmental tax system exhibits a generally clear separation of tax bases by level of government. Most general taxes such as the income tax and value added tax are allocated to the central government. Local governments principally rely on property taxes, with taxation of consumption and income occupying a much smaller share of their tax revenues. Moreover, there is almost no tax sharing between levels of government as taxes are allocated either entirely to the central or to the sub-central level. Although a “local share tax” (discussed later) does exist, it actually corresponds to a fiscal equalisation scheme and is classified as a national transfer. One of the problems in the intergovernmental tax regime is that tax revenue is often earmarked for specific programmes that involve transfers to metropolitan governments. For example, all or a portion of the revenues generated by the Liquor, Transportation and Special Agricultural Taxes, which are collected by the national government, are earmarked for the Local Transfer Fund program. A further concern is that different levels of government usually do not rely on the same tax base, with tax sources between central and local governments being distinct.

102. The current local tax system is quite fragmented, and characterised by a wide range of taxes. Busan Metropolitan City levies thirteen taxes, but five of them – the Registration Tax, the Acquisition Tax, the Local Education Tax, the Inhabitant Tax and the Tobacco Consumption Tax – account for 77% of total local tax revenue (Figure 3.3). At the sub-regional level, Busan’s autonomous district governments (*gu*) collect four taxes (the Aggregate Land Tax, the Property Tax, the Business Place Tax and the Licence Tax) and its county (*gun*) collects eight taxes. Compared to other OECD countries, the composition of local taxes is marked by a strong reliance on property taxation and relatively little reliance on income taxation (Figure 3.4). This feature is even more pronounced in metropolitan cities and Seoul (Figure 3.5). The property tax is, of course, theoretically more advantageous than other local taxes as it is levied on immobile assets and thus limits the scope for tax evasion. This tax also conforms to the benefit principle, to the extent that it is based on increases in asset values. A properly designed property tax can be considered a charge for the benefits that residents receive from municipal public services. However, in Korea, the incidence of the property tax regime is far heavier on transactions than on the possession of property. The bias in the tax system tends to act as a barrier to a liquid property market and the promotion of efficient land use. Moreover, local authorities have only limited power to adapt property tax rates to their specific needs. An additional problem concerning the local tax regime is that, because it is centred on transactions in property markets, registration of ownership and other items, it has only a weak relationship to local income increases. One recent study, for example, concludes that the relative index of the relationship between local tax revenues and increases in local income is only 0.074 (Kook, 2004). Hence, local authorities reap few benefits, at least through their own tax revenues, from growth in the local economy.

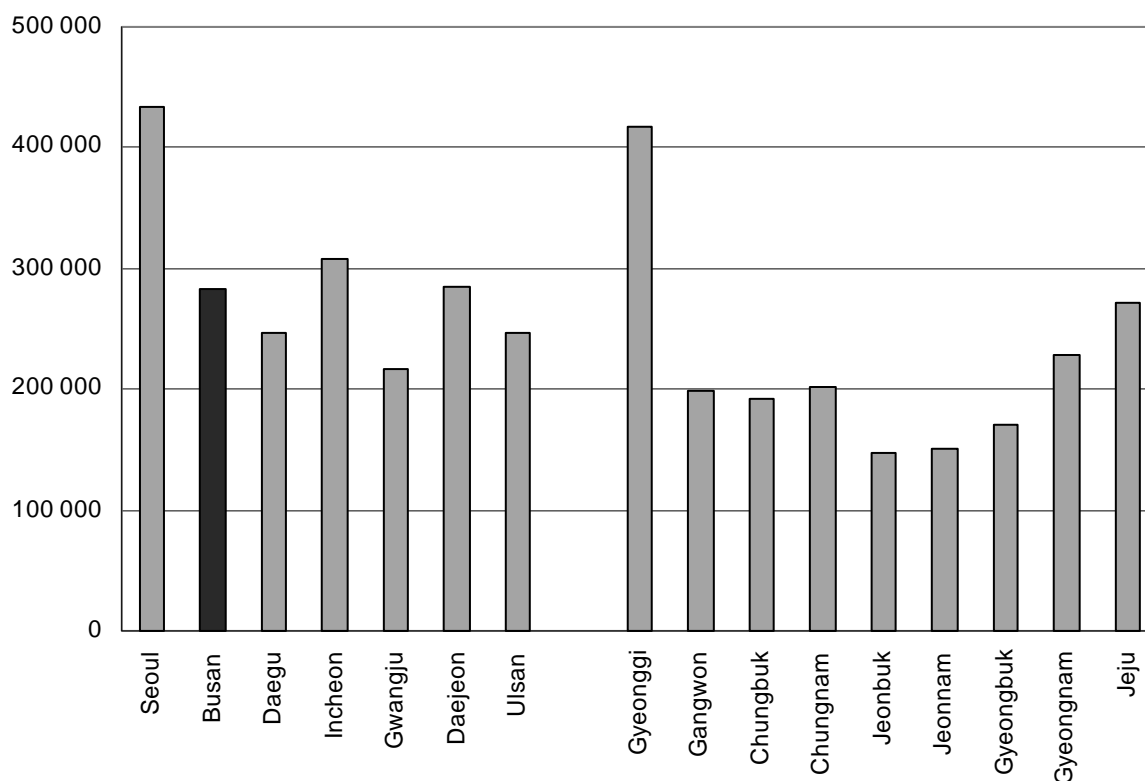
Figure 3.3. Busan local tax revenue by source, 2001



Source: Ministry of Government Administration and Home Affairs (MOGAHA), Yearbook of Local Tax Administration (2002).

Figure 3.4. The structure of sub-national tax receipts in OECD countries, 2001

Notes: This refers to only those taxes that are classified as sub-central government taxes. Social security contributions paid to social security funds are excluded.
Source: OECD (2003).

Figure 3.5. Property-related tax revenue per capita, 2002

Note: Property-related taxes include property tax, farmland tax and aggregate land tax.
Source: Ministry of Government Administration and Home Affairs (MOGAHA).

103. A main negative feature of the Korean intergovernmental tax system is often pointed out as the limited tax autonomy accorded to local governments. This statement appears correct concerning restricted access to the income and consumption tax bases, but claims of greatly restricted tax autonomy should be interpreted cautiously. The central government generally sets what it deems to be the appropriate rates and bases of all taxes. On the other hand, it also allows local governments to alter many tax rates within set limits and also permits changes to the bases of some asset taxes (*e.g.*, the Aggregate Land Tax and property transaction taxes). Moreover, the National Assembly does set local tax rates, but these rates are in fact only indicative for 11 out of 16 local taxes. Rather than a tightly controlled system, the local tax system could thus more appropriately be described as flexible within a constrained set of tax bases. Indeed, local governments may change tax rates within a maximum range of 30 to 50%, depending on their revenues, merely by issuing local ordinances. Nevertheless, this option is rarely used by local governments, even though the tax bases concerned account for 90% of tax revenues for provinces, 99% for metropolitan cities, 80% for cities and counties and 33% for districts. Busan has only twice increased tax rates on local taxes (once on the regional development tax on port containers, and a second time when one of its autonomous districts increased its property tax on aircraft). Nor do local governments generally adjust the bases of their property tax regime. The one area where there does appear to be some significant rate increases concerns the property transaction taxes. Local governments have notably increased their tax rates, in spite of

criticism of adverse consequences, apparently “because the burden of transaction taxes is not very transparent” (Kim, 2002).

104. One possible argument as to why local governments tend not to use their fiscal powers as much as they can is the lack of a clear differentiation between tax assignment and revenue sharing. In this view, local taxes are interpreted by both local governments and local residents as instruments for transferring the central government’s tax resources. Hence, it is not in the interest of local governments to raise local tax rates when more revenues and expenditures are needed. If a local government needs to increase its expenditure level, it will instead usually argue for a transfer of national taxes to the local government or an increase in intergovernmental grants. In other words, a skewed structure of incentives and its associated administrative culture encourages an overdependence of local governments on national transfers and discourages local governments from augmenting their own revenue sources.

105. Finally, the existence of the Local Education Tax gives the impression that local tax revenues and administrative authority have increased, which is not the case. Not only are the revenues from the tax earmarked for the Special Account for Education, but the base of participation in decisions on education spending has not been broadened either. At present, major decisions at the local level on education are taken by teachers and parents who participate in local education associations, whilst the role of local governments and the broader electorate remains limited. Thus, the Local Education Tax is paid by virtually all taxpayers, but neither they nor their representatives in local government are in direct control of how the revenues are spent. From a public finance perspective, this seems an inappropriate structure for administering such an important public service. Decisions on education are increasingly key factors in maintaining international competitiveness and are thus of legitimate concern to the entire community. Moreover, one goal explicitly aimed at in the Roh Administration’s emphasis on “participatory government” is fostering a stronger ethic of voter control. These reasons argue in favour of further decentralisation of education, with the next step being its integration into local government. With the local education tax now so visible, failure to expand voter input into the management of the system risks providing a focal point for fiscal discontent. Since Korea’s tax burden seems likely to grow due to ageing and other reasons, bolstering equity and public input into all decisions on taxing and spending are important means for securing broadly acceptable outcomes.

Intergovernmental grants

106. The second major source of local revenues comes from national transfers, *i.e.* grants and subsidies. In FY 2003, these transfers provided KRW 27 trillion, or about 35% of total local revenues. Among these transfers, *National subsidies* are conditional grants provided to local governments to support projects of national or local interest, with an emphasis on health care provision and financial assistance for low-income household. These subsidies totalled KRW 10.7 trillion, or about 14% of total revenues. A second transfer, called the *Local Transfer Fund*, is a block grant fund that was introduced in 1991 to promote capital investment, principally road maintenance⁸. This transfer amounted to KRW 4.8 trillion, or 6.2% of local revenues. The third and largest national transfer is the *Local Share Tax*, a national equalisation scheme whose purpose is to equalise vertical and horizontal imbalances. Its funding base is currently 15% (having been raised from 13.27% in 2000) of “domestic” tax revenues⁹. Revenues transferred through this grant were KRW 11.5 trillion, or 15% of total local revenues. Moreover, 90.9% (10/11) of this grant is allocated on the basis of objective needs, which are determined by an equalisation formula, while the remaining 9.1% (1/11) is used for special regional development projects, repairs due to natural disasters and other uses. Overall, there has been a decline in the relative proportion of specific subsidies in favour of the general subsidies from the *Local Share Tax*. Even so, the intergovernmental transfer system remains fragmented into a large number of small categorical grants with very specific purpose, leaving little flexibility for local governments to develop large integrated projects (OECD, 2001).

107. In 2002, 18% of Busan's total revenue came from these three national transfer programmes, with the breakdown being 13% from the National Subsidies, 3% from the Local Share Tax and 2% from the Local Transfer Fund. Recent trends show that Busan's share of revenues from intergovernmental grants is below the national average and has declined since 1998 (6.2% versus 4.2% in 2002). In particular, its share of revenues from the National Subsidies declined from 7% to 4.1% and revenues from the Local Transfer Fund declined from 8% to 4.9% of the total (Table 3.4). Busan's revenues from the Local Transfer Fund have even decreased by 20% in real terms between 1998 and 2002. As regards the Local Share Tax, the increase of revenues from this transfer (from KRW 28 to 142 billion in 2001) results from administrative and accounting changes due to the transfer to local governments of the responsibility for financing the salaries of primary and secondary school teachers.

Table 3.4. National transfers to Busan Metropolitan City, 1998-2002

	KRW billion adjusted for inflation				
	1998	1999	2000	2001	2002
<i>National Subsidies</i>					
Busan	543	612	547	685	642
National total	7 775	7 483	9 414	11 049	15 511
Share of national revenues	7.0%	8.2%	5.8%	6.2%	4.1%
<i>Local Share Tax</i>					
Busan	31	54	29	143	152
National total	1 956	1 718	2 031	2 936	3 102
Busan share of national funding	1.6%	3.1%	1.4%	4.9%	4.9%
<i>Local Transfer Fund</i>					
Busan	107	82	87	106	86
National total	1 330	1 230	1 626	2 118	1 771
Busan share of national funding	8.0%	6.6%	5.4%	5.0%	4.9%

Source: Busan Metropolitan City, Division of Tax Administration.

Local bonds

108. The final revenue source for local governments is municipal bonds. To fund its many large infrastructure projects, Busan typically relies on what are known as "compulsory bonds". These are unmarketable bonds whose interest rates are fixed by the issuing local government and which must be acquired by consumers involved in specific types of transactions. Two examples of compulsory bonds that Busan uses are the Urban Development Bond for infrastructure projects and the Regional Development Bond. Moreover, the funding for Busan's subway system is rather unique. The Busan Urban Transit Authority (BUTA) oversees the subway system, but this agency is actually a public enterprise owned by the central government that was created by a special law in 1988 to take over subway construction and management. Costs related to the subway are thus shared between Busan Metropolitan City and the central government.

109. Busan is burdened by a considerable level of debt, which reached KRW 2 337 billion in 2002. In 2002, Busan in fact issued KRW 603 billion worth of new bonds, a 577% increase compared to the real value of bonds sold in 1998. By contrast, the total national issue of bonds increased by a comparatively low 272% over the same period (Table 3.5). Busan's debt has been steadily increasing for several years and is now posing a significant burden on the city's finances. The challenge consists therefore in reducing the burden to a more appropriate level. Busan is implementing strategic measures to reduce the debt and improve the city's fiscal health. It is indeed important to make serious strides in debt reduction as soon as

possible. This is because the subway debt of Busan (KRW 473.6 billion plus KRW 19.7 billion of interests and KRW 47.1 billion of operation deficit) could be transferred to the city government at the same time that control over BUTA is devolved from the central government to Busan in 2006, two years earlier than initially planned. Thus, the city's level of debt could increase dramatically.

Table 3.5. New government bonds sales, Busan and national, 1998-2002

KRW billion adjusted for inflation

Area	1998	1999	2000	2001	2002
Busan City	89	831	206	445	603
National total	4 210	1 431	3 084	3 256	15 647

Source: Busan Metropolitan City Government, Division of Tax Administration.

110. As a response, Busan's current strategy to reduce its debt load includes six measures.

- The rate of annual debt growth will be limited to the growth rate of the city's annual budget.
- To pay down the current debt load, 30% of the net tax surplus will be used to repay bonds (ordinances were enacted in September 2000).
- Budget reserves used to pay down debt are as follows: KRW 49.6 billion in 2002 and KRW 68.1 billion in 2003.
- The disposition of public property will proceed as quickly as possible to repay debt associated with land purchases. Currently, land acquisition debt accounts for 23%, or KRW 530 billion.
- New bond issues shall be limited to matters of urgency with low long-term interest rates that compare with government borrowings.
- Steps will be taken to increase national transfers as a substitute for municipal borrowing.

111. According to the Busan metropolitan government's programme of debt reduction, these measures will help to decrease the city's accumulated debt from KRW 2.3 trillion in 2002 to KRW 1.4 trillion in 2006 (Table 3.6). This projected 40% reduction is premised on the assumption that the issuance of new debt will decrease by 60%, to KRW 110 billion in 2006 – from the current level of KRW 279 billion – coupled with an aggressive repayment schedule. It is also assumed that the major capital projects undertaken in the recent past – such as the facilities for the Asian Games, the main road servicing the New Busan Port and construction of the third subway line – are all completed by 2002, which has not been the case.

Table 3.6. Projected municipal debt schedule

KRW billion

Amount	2000	2001	2002	2003	2004	2005	2006
Issued	220	179	279	148	170	169	110
Repayed	73	154	358	343	444	440	298
Accumulated debt total	2 408	2 433	2 354	2 158	1 884	1 612	1 424
Year-to-year change	6.2%	1.0%	-3.2%	-8.3%	-12.7%	-14.4%	-11.7%

Source: Busan Metropolitan City, Division of Tax Administration.

112. The first and most important step in debt management is certainly to draft a strategy that sets out clear goals and timetables. To that extent, Busan's fiscal authorities are on the right track. However, some of the proposed measures appear to need deeper consideration or further clarification. First, the growth of the city's annual budget should perhaps be seen as a ceiling for debt growth rather than a target rate. Particularly given the uncertainties relating to the content of fiscal decentralisation on the expenditure side, it seems more advisable to set the growth in expenditures as an upper limit that should be undershot to the extent possible. Second, it is unclear how the "net tax surplus" is to be measured. The extent to which that figure can be manipulated for political or administrative convenience is therefore an important concern. And finally, seeking increases in transfers as a substitute for borrowing simply shifts the cost of projects onto a larger group of taxpayers. If a given local project is truly worth implementing, and does not entail significant regional spillovers or benefits for the national community, then it probably should be financed out of local revenues.

Expenditures

113. On the expenditure side, the Local Autonomy Act sets out a wide range of local responsibilities that suggests local governments play an independent role in providing local public services. Local governments do indeed have autonomous responsibilities that they fund themselves. These expenditures include the organisation and administration of local government, garbage collection, assistance for the poor, the promotion of industry, local development such as road construction, and education from kindergarten through elementary schools. Although the Constitution appears to grant wide powers to local governments, conditional clauses actually narrow the scope of local governance in practice. Besides, there are also delegated responsibilities that are national or regional in scope but are assigned to the municipal level by the central government. These responsibilities are either assigned to the mayor of the metropolitan city or to the executive branch of the municipal government. Of the two, the latter arrangement allows the local governments a little more autonomy because it involves less direct central supervision.

114. A concern with the current expenditure assignment and delegated responsibility system in Korea lies in the lack of a clear division of responsibilities between the central and local governments. On the one hand, the Constitution of the Republic of Korea states that "local governments shall deal with administrative matters pertaining to the welfare of local residents, manage properties, and may enact provisions relating to local autonomy, within the limit of laws and regulations". On the other hand, it also specifies that "matters pertaining to the organisation and operation of local governments – including election procedures – are determined by law". As a consequence, there are several overlapping areas as reported by the Busan Metropolitan City Government (Table 3.7).

Table 3.7. Examples of overlapping functions between the national government and metropolitan cities/provinces

Sectors	Overlapping tasks done by local office of central government and metropolitan cities/provinces
Labour affairs	Employee welfare: management of various funds and facilities Labour management relations: employment stabilisation, creation of labour unions, understanding and analysis of trends in labour management relations Vocational counselling: providing job offers, counselling and supervision of vocational counsellors Vocational training: counselling for vocational training, supervision of vocational training facilities
Environment	Environmental conservation: public relations for environmental protection, monitoring of the ecosystem Supervision and monitoring: basic environment facilities, commercial facilities discharging waste material, permission to install discharging facilities, management of dues for discharging waste material *(Tasks are separated according to industrial complex and the kind of waste material) Measurement and analysis: management of environmental pollution measurement network, examination and analysis of material evidence Protection of drinking water sources
Land construction	Planning and construction of streets and highways: management of national highways and regional roads Maintenance of streets and highways: maintenance of roads, measures against natural disasters, safety management River planning and management: projects and control on national and regional rivers Conservation and maintenance of rivers: maintenance and measures against natural disasters *(Tasks are separated according to national highways/regional roads and national/regional rivers)
Small and medium enterprises	Assistance for venture companies: support for establishment and investment Assistance in business establishment: assistance for start-up training centres, educating potential entrepreneurs Small and medium business centre: supporting and operating of the centre Business counselling and troubleshooting: monitoring and settlement of difficulties of SMEs, assistance for small industrials Support to exports, attracting investment: assistance for entering foreign markets and attracting foreign investment Technical support: assistance in technical innovation, support for technical development among firms, universities and research institutes
Statistics	Survey on business entities: statistics on mining and manufacturing industries, wholesale, retail and service industries Population survey Survey on agriculture and fisheries

Source: Busan Metropolitan City.

115. Moreover, decentralisation in Korea has to confront the question of how costs should be allocated between the different levels of government. Implementing fiscal decentralisation in a context where the division of responsibilities remains unclear may entail additional problems. Current ambiguity makes it difficult for local governments to know if their revenue base is adequate to cover all of the expenditures they are responsible for or whether they need to be asking for more fiscal autonomy in order to generate the necessary revenue. Furthermore, there is no clear distinction in Korea between local public goods and national public goods. Local governments' incentive to raise revenue from local taxes to fund spending on public goods is thus weak, as the spending may potentially be funded by the central government. Likewise, Busan could request more fiscal autonomy and self-financing authority, but without a clear division of expenditure responsibilities in place, it may decide to continue relying on national transfers as a source of local revenue.

116. A facet of decentralisation in Korea is the slated transfer of policing functions to the *gu* from 2006. Policing has for decades been a national monopoly in Korea, but the Roh administration has

decided to bolster local autonomy by shifting authority over traffic control, food safety, maintenance of public order and other limited police functions. This new regional police will not be involved in criminal investigations, and are expected to total 6 000 officers in the initial year (half of whom will be drawn from the existing state police). Decentralising policing powers is not unusual in OECD countries. Austria, Belgium, France, Spain and several other European countries have local police forces whose administrative purview is similarly limited to enforcing traffic rules and local bylaws as well as maintaining public safety. One question in the Korean case is who will oversee the police. The Presidential Committee on Government Innovation and Decentralisation reported recently that governors, mayors and other administrative heads will control the police and that their operations will be monitored by the government and civic groups in the local community. Local governments are keen to include investigative work among the responsibilities of the local police, and might gradually encourage “mission creep”, *i.e.* extend their initial role. So it would seem advisable at the outset to clarify who is in charge of the police and thus politically responsible in the event of problems with the new system. Moreover, community oversight of local policing is a common phenomenon, but its precise institutional structure needs to be clarified. In particular, the commitment to local autonomy and self-governance would be greatly facilitated in this area by ensuring that community oversight includes evaluations of police procedures and performance. Achieving these objectives could be enhanced through inviting feedback from the local community, including NGOs. A properly managed local police system would help prevent fractious community-police relations as well as assist in the strengthening of participative local democracy.

Reform of local finance: what consequences for Busan?

117. The ongoing and potential future reforms of the local finance system are certain to affect Busan. Obviously, fiscal decentralisation reforms are anticipated to focus on increasing fiscal autonomy and reducing reliance on national transfers. In general, the more local governments’ expenditures are funded via local taxes, the greater is their accountability towards the citizens and the stronger their fiscal discipline. However, tangible consequences of fiscal reform for Busan are not yet clear. The only point that appears to be assured is that as for other local governments, the required approval of Busan’s local budget by the central government will be eliminated and replaced by a manual providing non-compulsory guidance in fiscal design. As regards the intergovernmental grants scheme, the *Local Transfer Fund* is set to be abolished in 2005 and be replaced by a transfer that is planned to be called the “Balanced Development Special Budget”. This new programme will be funded through the revenues that compose the Local Transfer Fund plus additional revenues¹⁰, and will be partly derived from the national subventions. The total amount of new funds has been set up at KRW 5.4 trillion for 2005, but the precise allocation measures are not yet standardised. Thus, it is unclear whether the total amount of the new transfer will be greater or less than the existing transfer. As a result, it is not known whether Busan’s revenues will increase or decrease through the introduction of the new programme.

118. On the other hand, the weak redistributive aspect of the *Local Share Tax* under its current form has been quite favourable to Busan until now. This national equalisation grant allocates funds to local governments according to a formula that is based more on needs than on regional income. There is growing criticism of the equalisation scheme, but there is as yet no consensus driving policy change either. Hence, here too the consequences for Busan remain unclear. As noted earlier, fiscal disparities between local governments are quite large in Korea. For instance, average tax revenue per capita is about 40% higher in Seoul than in Busan, Gwangju and Daegu. Accordingly, more decentralisation without reform of the equalisation scheme may certainly increase Seoul’s fiscal capacity and exacerbate disparities between local governments.

119. In contrast, what is clear is that earmarked national subsidies (categorical grants) provided to local governments for specific projects do not allow Busan much flexibility to develop projects, since the money is so often linked to the central government’s requirements. The MOGAHA and other actors

involved in the decentralisation process do recognise this problem, and a “national subsidy deliberation committee” has thus been struck to study the issue. The likely direction of reform in this area appears to be the consolidation of subsidies and differentiation by type, but this reform should perhaps strive further. In particular, it would be advisable to create a new set of block grants that amalgamates the rules and revenues of the present highly differentiated system. The new set of grants could maintain some conditionality but include regional co-operation as a condition for receipt of at least some of these funds. In other words, it would be helpful if some new categorical grants were allocated to areas and projects where horizontal co-operation is required or where marked externalities between local governments prevail. The grant scheme could thus create direct, pecuniary incentives for voluntary, horizontal co-operation.

120. In the event that the fiscal decentralisation drive focuses on reducing national transfers in favour of enhancing local taxation, there are several options for Busan. One option is simply to wait for a transfer of existing national taxes. The likely template for any reform taken in this field appears to be Japan, which introduced such a tax-sharing scheme in 1997. As of that year, a 20% share of the national consumption tax (which is currently levied at 5% nationwide) was designated as local (prefectural) revenue by defining it as the “Local Consumption Tax”. This local consumption tax is apart from the 29.5% share of the national consumption tax revenues that is pooled and then redistributed through Japan’s intergovernmental equalisation fund known as the Local Allocation Tax. In Japan, administrative convenience prevailed over the potential to break new ground in decentralisation. Hence the retail stores and other organizations that transfer collected consumption tax revenues to the state, pay both the local and the national portions to the national government, and the prefectural governments do not have the power to adjust the rate or base of the tax to suit their own purposes.

121. Administrative convenience usually tends to win out in these kinds of shared tax-base schemes. One reason is that having autonomous subnational VATs, especially at the urban level, presents such a host of potential pitfalls in complexity and coordination that it is almost universally considered unwise in public finance. In the event that something akin to the Japanese-style shared consumption-tax scheme is introduced in Korea it would resemble a new national transfer scheme rather than be a new local tax. The primary benefit for Busan would be that its tax revenues would be bolstered with virtually no political cost, as most people paying the VAT are likely to think of the levy as a national tax rather than one shared between national and regional governments. This is particularly the case when the subnationals have no say in determining the tax base and rate, no capacity to declare “tax holidays” (as some American urban governments routinely do with their sales tax), and so on. But in the Korean case, one of the problems to be overcome through decentralisation is the local governments’ excessive control by and dependence on the central government. A new transfer scheme would do little to enhance the visibility of tax payment for the goods and services supplied by local governments. Greater local tax effort is more desirable than waiting for the central government to boost its transfers. In this regard, international experience clearly shows that a high degree of local tax effort coupled with the power to set rates are key elements in ensuring local responsibility and accountability (Kitchen and Slack, 2003).

122. Busan is already exploring the possibility of enhancing its revenue base through additional taxes. One option under consideration is a nuclear power tax, a type of tax that three other Korean cities have already implemented. There is a nuclear power plant located in Gijang-gun and a tax similar to the current regional development tax could generate an additional KRW 100 billion per year in local tax revenue. A second tax opportunity for Busan is the new horse race course and pari-mutuel taxes. The city authorities hope that this project will be a significant tax revenue source once the race-track is completed. These new taxes, if implemented, will certainly provide a modicum of revenues and thus somewhat increase Busan’s fiscal autonomy. However, international experience suggests that one should not put too much faith in gaming taxes. Not only may the gaming itself result in negative social consequences such as increased compulsive gambling, but also the gaming revenue stream is not always reliable. Japanese local governments in the early 1990s, for example, bet heavily on gaming as a source of revenues. This seemed

realistic as total gaming activity amounted to JPY 5.5 trillion, but as of last year that total had fallen by half and the shock to local revenue systems has been considerable (Nikkei, 2004). Undue reliance on gaming taxes seems thus an unwise gamble for local governments.

123. Other options for Busan include using its existing taxes as wisely as possible, especially to shape desirable urban development. As noted earlier, Busan and other local governments tax transactions in property more heavily than they do the actual value of the property. This bias in the tax base unduly impedes the proper allocative function of property markets and weakens the important linkage between benefits and burdens in local finance. Busan is already considering increases in the taxation of property, to accord with the National Tax Service's decision to increase the taxation on newly established buildings from KRW 170 000/m² to KRW 450 000/m². Because there is already concern about a backlash from taxpayers, fiscal authorities are also considering staggering the tax according to the aggregate of the taxpayers' assets. It seems more advisable, however, to reform the tax as part of a broader agenda of urban development. Extending development incentives through property-tax reform can lead to increased economic activity (via new construction and renovations) and could potentially displace taxpayer discontent by affording options rather than a simple tax increase.

124. Thus, an alternative approach to a simple expansion of the tax base would be to shift the tax base more towards the value of assets while simultaneously setting the rate on buildings and improvements lower than the rate on the land *per se*. This "split-rate" approach has been used with particular success and intensity in many Pennsylvanian cities for example. It is also highly evaluated by property tax experts as a measure to encourage development in the urban core and discourage sprawl (Brunori, 2003). Sprawl often leads to diseconomies through exacerbated traffic congestion, more time lost in commuting, less time and fewer opportunities for interacting and exchanging ideas, and a generally less diverse and creative environment. The "split-rate" approach would thus offer an interesting option for Busan that is already geographically dispersed and would need to reach economies of scope and scale in order to match its objectives of becoming a research-based economy.

125. Similarly, taxes can be also used to control the congestion that poses a significant problem in Busan as well as Korea generally. Overall, Korea loses about 4.4% of its potential economic output through the time and resources lost on congested roadways (ESCAP, 2002). The most recent and successful case of using taxes to reduce congestion was introduction of the "congestion charge" by the city of London in 2003. It has been widely praised, even by most of the people who pay it (Deloitte, 2003). In particular, the charge was introduced with a commitment to use the revenues to fund better roads and public transport. This helped reduce some of the opposition that arose when it was first proposed. Moreover, Singapore has been using road pricing to control traffic since 1975, with notable success, and automated the system in 1998. Of particular relevance for Busan and other Korea cities perhaps is the fact that acceptance of the Singaporean system was encouraged by a corresponding decrease in the very heavy tax on vehicles. In the case of Busan, the geographic dispersion of the city presents a challenge in design and enforcement. Considering that there is already an extensive use of tolls, staggering these could offer a low-cost start or long-term alternative to the systems already installed or being installed elsewhere around the world.

126. These kinds of taxes are generally referred to as "smart taxes" and the urban policy that they are part of is depicted as "smart growth". They aim not to maximise revenues but rather to increase incentives for economically productive activity. This in turn leads to increased revenues (through increased economic activity) as well as a better quality of life and the other positive externalities that arise from maintaining vital downtown areas. Smart taxation is no "magic bullet" solution to Busan's potential revenue needs, but as part of a broader and strongly incentivist approach to local tax reform¹¹, it is well worth considering. The political environment at the national level is clearly favourable to innovation, so what remains is to

engage local residents and, if possible, neighbouring governments in a dialogue about how public services might be funded in ways that simultaneously build better cities.

Strengthening capacity building of local public officials

127. Decentralisation is generally a positive trend to the extent that it widens participation at different levels of government. Yet it should not simply be assumed that decentralisation will *ipso facto* render local performance more effective and accountable. Reforming the training of local public officials is crucial to upgrading their capacity for comprehensive policy-making. For the time being in Korea, regional, provincial and metropolitan city governments have their own separate local officials training institutes¹². Currently, the local training institute of Busan is hosting 4 000 trainees. The budget for the education of Busan's local officials amounts to KRW 5.1 billion in the metropolitan city (not counting civil servants of autonomous districts), *i.e.* KRW 1 280 000/person (about EUR 882/person). No major difference has been reported among cities/provinces in Korea concerning the average share of their budget allocated to training of local civil servants. In contrast to other cities or countries where training is perhaps more focused on civil servants before they take up duty, Busan tries to focus on *ex post* permanent training, even after they become civil servants. Training has also been made compulsory for civil servants to get promoted.

128. Still, opportunities to learn from the central government or other local governments remain very limited so far and intergovernmental exchanges of personnel could be encouraged, both vertically and horizontally. Personnel detachment is one possible method of learning, and could be further explored in Busan where about 10 officials only are currently detached from the central government to the metropolitan city government. Another possible technique is to organise personnel exchange during training phases, with public officials following training courses at other levels of government before taking duty back at their own position. Vertically, this also entails some shortcomings that should be taken into account. For example, training of 5th grade and higher local civil servants is performed by the central government, which means that training of higher-level local managers cannot necessarily be adapted to specific local needs. Horizontally, exchange between local governments should be further developed, especially between metropolitan cities. The local training institute of Busan is currently hosting about 800 trainees from Ulsan, but primarily because Ulsan was upgraded as a metropolitan city very recently and thus has no own training institute. More systematic and diversified exchange networks between local governments could foster mutual learning opportunities.

129. Finally, although practical and functional training is provided, qualitative training (*i.e.*, creative thinking, innovative action, brainstorming practices, collective behaviour, teamwork spirit, co-operation between different divisions, etc.) remains marginal and could be significantly reinforced. Reforming the overall mentality of local public administration towards a more open and innovative system is a long-term task. In this respect, private sector could perhaps offer a source of inspiration in terms of entrepreneurial culture. Some OECD countries such as Germany have actually started to introduce new learning initiatives for their local public officials so as generate know-how spillovers from private sector and learn certain management skills (Box 3.2). In Busan, a new partnership programme started in 2003 so as to develop collaboration with the private sector. Some civil servants take a one-week internship in a large private firm (*e.g.* Daewoo Construction) in order to learn management techniques. Such learning possibilities should be more fully developed and encouraged.

Box 3.2. Examples of learning initiatives for local public officials in Germany

In **Germany** where the fundamental source of public officials' training used to be the federal, regional training institutes, the 1990s saw a remarkable evolution towards a more open and interconnected system. Local authorities started to request management courses and an increasing number of private institutions have responded to that demand. More active exchanges between public and private institutions have been fostered. For example, general polytechnics (*Fachhochschulen*) have created several public management courses mainly within their departments of business administration. Moreover, universities that had largely ignored the public sector have created master programmes in public management, such as the University of Konstanz and the University of Potsdam.

130. Local public officials are often reluctant to assume new duties because they doubt they will be able to accomplish their tasks as successfully as their counterparts at the national level. One way to help local public officials develop their capacity to perform new responsibilities would be to set up precise self-evaluation criteria. Designing a set of accurate performance objectives and measurement standards would provide local public officials with useful guidance by giving them a clear idea of what is expected from them. In some cases, local governments can even be associated directly to the process of designing such criteria. In Spain for example, the Spanish Federation of Communes and Provinces (FEMP), the Observatory for the Quality of Public Services (*Observatorio de la Calidad de los Servicios Públicos*, OCSP) and the Ministry of Public Administration have involved local governments in the diffusion of self-evaluation tools, called EFQM (European Foundation for Quality Management) and CAF (Common Assessment Framework). The OCSP then ensures the training of local public officials to use those evaluation tools.

Reinforcing local democracy

131. Up to now, decentralisation in Korea has mainly benefited the upper level of local governments (provinces and metropolitan cities) and to a lesser extent the basic local governments' level. In a way, it has even been to the detriment of smaller local units, which have largely become mere administrative units. It is generally agreed that while some strategic and region-wide functions must be handled at a large territorial scale, some other services should be delivered by government that is as close to the citizens as possible. In other words, local democracy could be bolstered by giving more autonomy to the basic local governments, autonomous districts (*gu* and *gun*), and by strengthening participative democracy at the lower administrative units of *dong*, *eup* and *myeon*.

132. The metropolitan system is primarily based on a functional approach and the pursuit of greater managerial efficiency for the overall metropolitan region. However, to emphasise managerial efficiency at the expense of participatory governance risks constructing a system with a weak institutional capacity to secure accountability. Hence, it would be desirable to give greater autonomy to the *gu* and the *gun*, the basic local governments and first legal levels of local democracy. This is particularly the case because each *gu* and *gun* has its own specificity and individuality. This lowest level of local government in Korea is in addition relatively large in size and population compared with other OECD member countries (Table 3.8).

Table 3.8. Lowest territorial units in OECD Member countries

	Number of units	Average size of population	Average size of area in km ²
Korea			
<i>Si</i>	72	254 000	498
<i>Gun</i>	91	66 000	656
<i>Gu</i>	69	343 000	51
<i>Total</i>	232		
France			
<i>Communes</i>	36 000	1 700	15
Germany			
<i>Gemeinde</i>	16 000	3 400	22
Japan			
<i>Shi, Machi and Mura</i>	3 200	36 500	115
Switzerland			
<i>Gemeinde / Communes</i>	3 000	2 400	14

Source: OECD Territorial Database.

133. In terms of expenditure, the Korean public sector as a whole, and particularly its subnational governments, is in the midst of an important shift. From a developmentalist-oriented state, with heavy spending on public works, it is moving towards a more welfarist and human-capital focused system. Concretely, the share of spending to economic development projects gradually declined from just under half of all local spending in the early 1990s to under a third in 2001. At the same time, spending on social development went up from less than a third of spending to just under half. In other words, the two categories reversed their relative standing in a decade¹³. A lot of this spending is either directly performed by or is delegated to local governments. The legal relationship between the regional and basic local governments remains hierarchical, with scope for delegation from the regional to the basic local level. Against the backdrop of the shifting expenditure orientation of the state overall, it is imperative that the competencies and modes of relationships between the two levels of local governments be clarified.

134. The Local Autonomy Act lays down the responsibilities of regional governments that are distinct from those of basic local governments, which cover the following:

- Matters that concern the various basic local governments;
- Matters that must be handled on an equal footing within the boundaries of the regional government;
- Matters considered best handled uniformly throughout the regional government;
- Matters concerning the relationship and co-ordination between central government and basic local governments;
- Matters that it is not appropriate for basic local governments to manage individually;
- Matters concerning the construction and management of infrastructure that is best built and managed co-operatively between basic local governments.

135. The criteria listed above are too general to act as a clear-cut guide for assigning expenditure responsibilities. The interpretation of legislation remains ambiguous, making it difficult to restrict encroachment or hierarchy or supervision between the two levels of local government. Ambiguous

responsibilities at the local level not only obscure responsibility and increase local electors' difficulty in making informed decisions. In addition, they can undermine the incentives for horizontal co-operation at the basic local level if the authorities tend to look up much more than around in seeking to resolve problems.

136. In this broader context, assessment of the financial situation of Busan's 15 autonomous districts (*gu*) and one unique county (*gun*) confirms their weak local autonomy. Busan's metropolitan tax revenues are five times larger than those of its autonomous districts. The national average for the fiscal independence index (FII) of autonomous districts is 42.3%, whereas the average of the FII for the 15 *gu* of Busan is a relatively low 36% (Table 3.9). Moreover, aside from Gangseo-*gu*, their reliance on non-tax revenues is generally twice as high, as *gus* rely only on 4 tax bases. Conversely, Gijang-*gun*, Busan's fiscally unique county, relies on a larger number of local taxes¹⁴ and features a self-financing rate of 34.7%, well above the 19.1% national average for *gun* and even somewhat more than the average for Busan's 15 *gu*. Finally, the fiscal autonomy of the different autonomous districts shows great disparities: for example, Jung-*gu* and Busanjin-*gu* have relatively high FII, at 46.3% and 46% respectively, while Seo-*gu* and Buk-*gu* have rates of only 21.3% and 23.7%. To equalise their fiscal base, Busan Metropolitan City redistributes a portion of its tax revenues through the *Adjustment Transfer Fund*, a local cross-subsidisation fund for the *gu* and *gun* located within metropolitan cities¹⁵. The *Adjustment Transfer Fund* accounts for a substantial share of the *gu*'s income, whereas the unique county depends more on national transfers.

Table 3.9. The self-financing rates of Busan's 15 *gu* and *gun*, 2003

KRW 1 million

<i>Gu</i>	Self-financing rate (%)	Share of local governments dependent financial resources in gross local revenues (B/A) (%)	Gross tax revenues (A)	Dependent financial resources (B=C+D+E+F)	Local share tax (C)	Local concession (D)	Adjustment transfer fund (E)	Subsidy (F)
Jung- <i>gu</i>	46.3	53.7	39 357	21 143			14 157	6 986
Seo- <i>gu</i>	21.3	78.7	90 762	71 417			26 567	44 850
Dong- <i>gu</i>	31.1	68.9	66 315	45 690			22 894	22 796
Yeongdo- <i>gu</i>	27.6	72.4	69 254	50 171			26 032	24 139
Busanjin- <i>gu</i>	46.0	54.0	129 718	70 072			22 963	47 109
Dongnae- <i>gu</i>	42.0	58.0	76 514	44 382			21 250	23 132
Nam- <i>gu</i>	36.2	63.8	78 207	49 903			25 123	24 780
Buk- <i>gu</i>	23.7	76.3	84 006	64 098			26 499	37 599
Haeundae- <i>gu</i>	42.8	57.2	105 353	60 249			22 480	37 769
Saha- <i>gu</i>	36.5	63.5	107 729	68 383			24 344	44 039
Geumjeong- <i>gu</i>	37.2	62.8	90 655	56 941			25 838	31 103
Gangseo- <i>gu</i>	32.2	67.8	57 470	38 986			20 354	18 632
Yeonje- <i>gu</i>	34.4	65.6	70 971	46 566			22 432	24 134
Suyeong- <i>gu</i>	40.3	59.7	55 940	33 424			19 770	13 654
Sasang- <i>gu</i>	40.1	59.9	88 150	52 768			21 485	31 283
Average 15 <i>gus</i>	36.0	64.0	80 693	51 613			22 813	28 800
National average for <i>gu</i>	42.3	57.7						
Gijang- <i>gun</i>	34.7	65.3	95 778	62 520	29 000	8 530	4 680	20 310

Source: Busan Metropolitan City.

137. Other territorial levels in which participative local democracy should be developed are the *dong*, *eup* and *myeon*. Although they remain administrative jurisdictions, the average population of the *dong* is 16 640 and of the *eup-myeon*, 13 600. These are comparatively large populations, and should be more than

adequate to provide the basis for a local community. In 1998, Korea launched a new directive on the apportionment of responsibilities between basic local governments and their administrative sub-levels (*eup-myeon-dong*). To achieve economies of scale and because of the mobility of residents and progress in computer technologies, over half of the work previously handled by the administrative offices of *eup-myeon-dong* has now been transferred to the administrative offices of the main towns in cities, *gu* and *gun*. The office space made available by this administrative restructuring has been used for “local autonomy centres”. These steps therefore had two important goals: the rationalisation of administrative services and the provision of centres where the basic local community could meet. These centres aim at promoting community involvement among the population, and are thus designed to become the smallest level of local democracy.

138. Virtually all of Busan’s *eup*, *myeon* and *dong* – 219 out of 221 – set up local autonomy centres in 2002 with committees of residents known as a “local autonomy committees”. The supervisory committees average 23 members drawn from the local civil society as well as locally elected officials. The latter do not have voting power on the committee, and participate in an advisory capacity. These centres primarily offer cultural programmes aimed at promoting community activities among the population. Approximately 1 100 programmes are currently under way within Busan, with an average of 5 programmes being provided per centre. Some of the centres do venture into civic education and efforts to alleviate such social problems as domestic violence, generally in co-operation with local NPOs that specialise in the particular area. Nonetheless, these initiatives are not a salient aspect of the centres’ activities. Moreover, the results of the centres’ creation have been quite modest so far, with only a total of 11 900 users throughout Busan, or 55 users per centre per day. Local inhabitants actually know little about the centres’ purpose and mission. It is also clear that the initiatives taken by local autonomy committees have remained too cautious. In short, there is a need to promote a more active role *vis-à-vis* the local residents. Also needed is larger investment by local governments. In 2003, the total operating budget for the Busan metropolitan region’s 219 centres was only KRW 2.2995 billion: KRW 262.5 million for Busanjin-*gu*, KRW 73.5 million and KRW 52.5 million respectively for Gangseo-*gu* and Gijang-*gun*.

139. Local autonomy committees may be relatively unknown to most citizens because their members are not elected, except indirectly through the participation of locally elected officials on the committees. One potential means to increase public interest in the committee’s work is to make the supervisory committee directly elected rather than simply selected from local civil society groups. Competition for election to the committees is almost certain to foster useful debate, within each community, on how their role might best be adjusted to reflect the local character and needs. An attentive local public is likely to emerge as the result of such an institutional change. A case in point is Taiwan’s neighbourhood associations, where elections have resulted in considerable levels of local citizen engagement and voting in many of the associations. This sort of reform is worth considering, as another problem in the Korean case is that the local autonomy committees emphasise a package of classes that varies only a little according to the community. Since the local communities are not responding strongly to this focus, the centres probably need to broaden and diversify their organisational mission to suit the differing needs of the various *dong*. In other words, rather than offering a relatively restricted menu of computer- and culture-oriented courses as their main activity, they should perhaps focus more on working with the local NPOs in order to understand and deal with real community needs. They do the latter to some extent already, so this change would be a matter of shifting focus rather than massive institutional restructuring. There are many examples of neighbourhood associations fostered through the public sector in Anglo-America, including Neighborspace in Chicago for example, where one finds considerable role diversity depending on the socioeconomic composition of the local community (Box 3.3). The presence of elected officials on the Korean centres’ supervisory committees is somewhat unusual, but it could also be a useful route for increasing the input of local information into the decision-making processes of the *gu* if the committees were to become more innovative and activist concerning community needs.

Box 3.3. Neighbourhood associations in the US

Chicago's Neighborspace is an NPO that was founded in 1996 through collaboration between the City of Chicago, the Forest Preserve District of Cook County and the Chicago Park District. NeighborSpace secures land for small parks, gardens, natural areas, river edges and scenic landscapes throughout Chicago. Over less than a decade, it has acquired 39 sites and currently plans to acquire nearly as many more. It has also attracted just under a thousand volunteers. The public sector role provides insurance coverage for those who use the sites as well as the expertise and services for acquiring land on behalf of the volunteers. In turn, the volunteers maintain green space in their own communities and thus improve the neighbourhood as well as strengthen community bonds through co-operative activity. This kind of movement is worth Busan's attention because the city seeks to foster the environment but on the other hand is likely to open its greenbelt areas for development. When economic development and urban environmental enhancement compete for resources, it seems that it is almost always the latter that loses. In contrast, urban beautification is a key to what the US Environmental Protection Agency, along with numerous other institutions, refers to as "smart growth" (EPA, 2003).

Involving civil society for better accountability

140. Civil society in Korea has itself been notably activist, especially for a country that endured decades of colonial rule, the costly Korean civil war, and then a protracted period of authoritarian government. Institutionalised protest emerged, especially in the 1960s, in response to this history, the socioeconomic stresses of rapid industrialisation fuelled by the emphasis on urban areas and large firms, and other contentious issues. Other groups, such as the Saemaul Undong were organised by the state to facilitate modernisation. The significance of the organisations is not merely seen in their mobilisation of huge numbers. Many of the country's most prominent leaders also have their roots in these organisations, and their elites have themselves frequently participated directly in policy debate and its formulation within the state's advisory organisations. The current President, Roh Moo-Hyun was, for example, long a civil rights lawyer who worked within the movements defending dissidents against the dictatorships of earlier decades.

141. This flow of former NPO members into the high councils of the policy-making process is in addition to direct political pressures of the mass movements themselves. The latter was most recently evident in December 2003 when thousands of regional protesters went to Seoul and gathered in front of the National Assembly to demand decentralisation. The NGOs of Busan were particularly active in this move for decentralisation. There has also been a very successful political movement, the Citizens Coalition for the 2000 General Election, which was instrumental in defeating large numbers of unresponsive politicians. The very high level of broadband internet connectivity in Korea has greatly increased the capacity of these groups to co-ordinate their activities and otherwise maintain and enhance their inter- and intra-organisational linkages and activism (Han, 2002).

142. The installation of the Roh Administration, and its activism on a range of issues long at the core of these groups' agenda, has encouraged them. Doubtlessly, the outcomes from the ongoing policy reform will be less than many of these groups would prefer, but that problem is endemic to the interactions between reformist governments and the pressure groups that helped put them in power. Good government is the art of making tactical compromises in the pursuit of larger goals, and the necessity for compromise is often not well-understood by organisations and individuals who are not directly confronted with the trade-offs inherent in policymaking. The important point is for the political and bureaucratic leadership to consult with these representatives of civil society, and draw on their advice whenever it is practical. In this way, the public sector not only enhances its information base on the needs and demands of the larger society; but the strategy also often pays off by encouraging the groups to moderate their own demands in favour of practical solutions that strike a reasonable compromise among diverse interests.

143. At the local level, especially for large Korean cities such as Busan, the role of these groups can be particularly important. This is because the continuing weakening of centralised governance presents, again, a number of risks and opportunities. One clear risk is found in the ideological and organisational legacy of the central government's appointment of local leaders, which has left a tradition of executive-dominated governance in most subnational administrations, including Busan. Decentralisation efforts thus must be wary of a potential bias towards arrogating decentralised authority over policy-making into as few local hands as possible. One strategy for avoiding this negative outcome is to deliberately broaden the base of authoritative input into policymaking, encompassing not only the local assembly but also the diverse interest groups of the local community.

144. In this regard, Busan is favoured with fairly robust organisation resources. Its civic groups have been at the forefront of national movements to clean up politics, mobilise voters, and generally interest people in participatory democracy. At the local level, these groups play a key role in encouraging transparency, as they focus on monitoring budgets, policy proposals, the expenses of political leaders, and otherwise perform valuable oversight roles. Moreover, Busan has already taken concrete and laudable steps to bolster input from local civic groups. The emphasis on low-cost administration in the wake of the 1997 economic crisis and afterwards has clearly put a premium on drawing on the organisational resources and ideas of civic groups. One example of positive developments in this regard is the city's implementation of the "Busan Decentralisation Conference", which was founded on April 4, 2003. The conference includes the planning section of the local government, the decentralisation commission of the local assembly and representatives of over 120 civic groups (Park, 2003). The goals of the conference focus on capacity building for decentralisation and balanced economic development, identifying appropriate strategies to these ends, and highlighting effective means for achieving thoroughgoing decentralisation. Given a sustained commitment, this conference clearly has the potential to become the locus of information exchange among the participants and a valuable means for its broader dissemination to the attentive public.

145. The question is whether the Busan authorities will seek to further these kinds of processes. At present, they have the rudiments of participatory democracy in place. Still, in any decision-making environment, there is a countervailing desire to streamline the process as much as possible in the interests of efficiency. This strategy is satisfied with a minimum of civil-society input, using it as window-dressing to legitimate decisions arrived at prior to pro-forma processes of consultation. This institutional outcome is always a risk when civil-society organisations have not expanded sufficiently to reach a critical mass and compel the authorities to allow them to participate in directing policy rather than marginally influencing it from the sidelines. Leaving civil society on the sidelines is to be avoided, as it is a recipe for alienation and opposition. The long-term cost to policymakers is that groups then seek to maintain and bolster their memberships by acting in defiance of decisions they had no meaningful role in making.

146. But the question of how to involve civil society in administrative processes is as complex as civil society itself is (Reddell, 2003). And there are limits to how open and elaborate consultative processes can be. Eventually, elected representatives have to make decisions for which they are held responsible through the political process. In other words, there is clearly a balance to be sought in consultation. Going too far risks administrative immobilism through excessive and endless debate, but not going far enough is equally unwise. In today's rapidly changing socioeconomic environment, any public sector that unduly limits input from civil society risks not having access to information and the organizational support that is increasingly essential to constructing and maintaining competitive economies and vibrant communities.

147. There are diverse means for providing some of the organisations of civil society a seat at the policymaking table. In the recent emphasis on being "creative", for example, many urban leaders in North America have deliberately sought out interactions with civil society, in the hopes of fostering a more innovative community (Eakin, 2002). Rather more sedate examples of involving civil society include

Japanese urban areas' longstanding use of advisory councils to provide advice on reforms and the like to city managers. Busan has in fact put in place some key institutions for involving civil society in policymaking, but there are still ample opportunities to capture local knowledge.

Improving horizontal co-operation for a stronger region

148. To ensure balanced territorial development around metropolitan areas, the scale of government action needs to be adjusted through co-operation between neighbouring local governments. On the whole, co-operation among local governments remains limited in Korea. Regional governments (provinces and metropolitan cities) tend to see each other as competitors more than as potential partners in development. They are thus concerned with how to use their newly devolved responsibilities and position themselves to attract businesses and national financial support. The underlying reason for this is size. Being large renders Korea's regional governments less sensitive to the need to co-operate. Contrasts the case in other countries, where the average size of local governments is much smaller. In France, for instance, the *communes* have an average population of only 1 600 inhabitants and an average area of only 14.9 km². Merging *communes* is not an approach favoured in France, so the locals recognise instead intercommunal co-operation as a key priority of territorial planning.

149. On the contrary, there was a wave of municipal mergers in Korea during the 1990s. Mergers were aimed at increasing economies of scale, internalising territorial spillovers and creating other large poles of growth to counterbalance the weight of Seoul¹⁶. However, these amalgamations of municipalities did not resolve problems arising from the interrelationships between the various administrative levels, especially in the case of metropolitan cities. In Busan, the functional area has now begun to overflow the territorial administrative area. Steps should thus be taken to promote exchanges between basic local governments, especially between Gijang-gun and Gangseo-gu (of Busan) and Yangsan-si and Gimhae-gun (of Gyeongnam). There are a variety of necessary adjustments in public functions that should be addressed through these exchanges. Similarly, co-operation between Busan and adjacent regional governments is very limited but increasingly essential. Therefore, the existing set of tools for encouraging it should be strengthened. This encompasses both the *institutional tools*, such as consultative councils and associations, and the *contractual tools*, such as the urban regional planning that is about to be put in place.

Exploiting institutional mechanisms

Existing tools: consultative councils and associations

150. National legislation in Korea already established a legal basis for co-operation. The Local Autonomy Act specifies the conditions that govern the relationships among the various local entities as follows: "when a territorial entity receives a request for consultation, support or joint management of an issue, etc. from another entity, it must co-operate with that entity as required by law" (Article 139). However, in spite of this apparent emphasis on co-operation, it seems highly revealing that Chapter VIII of the same Act (which centres on the relations between local entities) begins with the heading "*arbitration in the event of conflict*". Currently, legislation aimed at providing the means to tackle this issue is being prepared. These means involve the delegation of administrative matters between cities, counties, provinces and metropolitan cities; the federation of chief executives (mayors and prefects) at national level; *consultative councils* composed of civil servants; and *associations* along the lines of French "*syndicats*".

151. *Consultative councils* are available to local governments that wish to consider problems common to several of them. These councils are purely consultative, without budgets of their own or decision-making or enforcement powers. They include only civil servants, excluding locally elected officials. These councils are normally established on a voluntary basis by the territorial units concerned, but they may also be created at the initiative of the Ministry of Government Administration and Home

Affairs or at the request of regional local governments when this is deemed necessary for the public interest. In the event of disagreement among their members, the matters in dispute may be submitted to the Ministry or the relevant regional governments for mediation. The creation of consultative councils was initially overseen by the central government, which set the conditions for these institutions. Subsequent to their creation, however, responsibility for their operation has been left entirely to the territorial units that are members of these councils. The latter have not, however, shown much enthusiasm in this regard. One of the causes of this inertia stems from the method of co-operation selected, which is non-binding and is not backed up by financial incentives from the central government. As these councils generally meet at the request of one of their members, they are not even necessarily standing bodies. Nor are councils authorised to oblige the local member governments to act if the latter wish to avoid dealing with a specific issue.

152. *Associations*, on the other hand, are more significantly empowered institutions. When collective management is required for local governments to address a specific issue or set of issues, two or more of them may jointly create an association. The establishment of an association by a regional local government is subject to the approval of the Ministry of Government Administration and Home Affairs. Moreover, associations created by basic local governments must be approved by the chief executives of the regional local governments that they come under. Unlike consultative councils, which deal with all issues, associations may only address a limited number of previously defined issues. They are created entirely by local initiative, although the Ministry of Government Administration and Home Affairs may, in the public interest, require the relevant local governments to create or dissolve an association or change its rules. Associations have the status of legal persons, enabling them to have their own staff and take broad responsibility for the issues delegated to them.

153. The use of such institutional tools varies throughout the country but could be improved on the whole. According to a survey taken by the Ministry of Government Administration and Home Affairs, there are currently 55 consultative councils in Korea (as of December 31, 2001). Of this total, 5 are regional consultative councils split between 14 regional local governments, and 50 are local consultative councils to which 213 basic local governments belong. Of 175 issues raised in 2001, a total of 149 were settled in 44 meetings. The main issues addressed were drinking water supplies, wastewater treatment, household waste collection and processing and the construction and maintenance of streets and roads. However, councils are tackling an increasingly varied and wide range of issues, including cultural and sports programmes, education, and research projects for local development. The boundaries of local consultative councils are generally organised around a central city and its urban area, respecting regional administrative divisions. These consultative councils are formed among cities (*si*) and counties (*gun*), as autonomous districts (*gu*) do not create councils among themselves and very seldom join such councils as basic local governments – only three autonomous *gu* of Seoul, Incheon and Busan have done so. In comparison with consultative councils, associations remain little used. Indeed, only two such bodies have been created. These are the Telecommunications Association (1971–1975), comprising 23 *si-gun* of Gyeonggi-do, and more recently, the Association for Household Waste Collection and Processing, which brings together 20 *si-gun* of Seoul, Incheon and Gyeonggi. In both cases, the boundaries encompass a densely urbanised area in the heart of the capital region, where the demand for this kind of collective management is naturally very strong.

First experiences of consultative councils in Busan

154. Busan has recently initiated its first experience of formal co-operation among basic local governments. One of its autonomous districts, Gangseo-gu, is a party to the consultative council of West Nakdong River. Nakdong is a river that flows through the two provinces of Gyeongnam and Gyeongbuk, and forms a natural border between Gangseo-gu (in Busan) and Gimhae-si (in Gyeongnam). In 1991, at the central government's initiative, discussions began regarding the possibility of establishing a consultative council for the area covering Gangseo-gu and three *si-gun* of Gyeongnam, and this project was finalised

in 1996. The issues addressed by this Council reveal the kinds of problems arising from the administrative division of territories that share the same environmental heritage but are otherwise disparate. The Council has taken up such points of contention as differences in the levels of purification of wastewater released into the Nakdong River by the two local governments, extension of a bus line, relocation of highway toll stations, road planning, sharing of bridge construction costs, and other aspects of urban planning. Additional problems include fixing the boundaries between the two governments. As a result of several past revisions of the administrative borders, property belonging to Gimhae-*si* is still in the territory of Gangseo-*gu*, and Gimhae-*si* has asked that a border village previously annexed to Busan be returned to its jurisdiction.

155. Although these governments are in a horizontal relationship since they are both basic local governments, this is often not how the situation is perceived. However, Gimhae-*si*'s reluctance to co-operate with Gangseo-*gu* has not entirely blocked them from undertaking a project that is perceived to be of mutual advantage. This project is the racetrack being built on the border between the two territorial units. Indeed, in order to facilitate the fair allocation of tax receipts from the project, the governments agreed to divide the site of the racetrack into two equal parts. Gangseo-*gu* and Gimhae-*si* now each possess 1 246 000 m² of the site. This example of agreement against a general backdrop of difficulty in resolving other issues is instructive. It seems that the pecuniary incentive played a significant role, as failure to divide the racetrack site evenly would likely have stalled the project and thus eliminated an opportunity for mutual gain. If so, the lesson from this instance is that both governments should look beyond the immediate costs of cooperating on projects and more towards the potential gains. To identify these gains, where they are not immediately obvious (as in revenues from the racetrack), council staff might look more broadly at the externalities arising from the problem and its potential means of resolution. One tool to highlight such costs is, for example, through the use of economic, environmental and social reporting, as has become common among Australian local governments and elsewhere (Box 3.4). Many of the areas where Gangseo-*gu* and Gimhae-*si* have trouble co-operating involve traffic and waste disposal. Thus, seeing a clearer accounting of the costs of not co-operating might provide an additional incentive to encourage more negotiation and compromises in other areas of mutual concern.

Box 3.4. The Triple Bottom Line

Economic, environmental and social reporting, often referred to as "triple bottom line reporting and auditing," is an increasingly visible style of accounting. In addition to the usual emphasis on financial outcomes, triple bottom line costing also reports the social and environmental effects of an organisation's activities. In recent years, this accounting practice has migrated from the corporate responsibility movement and become a feature of public sector accounting in Australia and New Zealand in particular, with a strong focus at the local level. The techniques for employing this accounting in the public sector have evolved considerably and are available as a "toolkit". During August 16-17, 2004, a full conference on triple bottom line accounting was held in Melbourne under the auspices of the International Council of Local Environmental Initiatives.

Busan is strongly advised to employ these accounting techniques whenever possible, and particularly in calculating the costs and benefits of intra- and inter-urban cooperation. Korean local governments need a stronger set of incentives to co-operate in economic development and other policy areas. When public managers can see an objective statement of the broader costs of a problematic status quo, they will have one more reason to act wisely on behalf of their communities. Public disclosure of the accounting reports would also aid community groups in understanding the need to push their elected leaders towards co-operation, giving public managers a political incentive to work together.

Source: Keating (2002), ICLEI (2004).

156. The regional level also includes institutions for co-ordinating policy. In 1999, the three regional local governments of Busan, Gyeongnam and Ulsan established the regional *Consultative Council of the South-East Area*. Following its second meeting in June 2000, the Council created a Research Committee for Co-operation and Development of the South-East Area. The mandate of this committee is to investigate common issues and find collective solutions. Its 15-members staff includes municipal planning officers, researchers from regional research centres and academics from area universities. Recent work by the committee includes a report on developing the Southeast economic zone. The focus of these recommendations centres on construction of a new airport, bolstering the Southeast Zone Tourism Committee, sharing of overseas trade offices, and other means of enhancing regional infrastructures or reducing costs. This committee is strongly advised to pursue, wherever possible, fact-finding missions as well as cooperative research with similar institutions within Korea and in neighbouring countries. Since so much of the committee's mandate includes overseas-related issues (*i.e.*, tourism and trade offices), the more information and policy lessons it accumulates, the better. It is advised in particular to stay abreast of trends in Japanese and Chinese tourism, as socioeconomic and demographic change in both countries are leading to increased diversity in demand.

Contractual arrangements for regional planning

157. Postwar Korea has seen a dense network of top-down plans for economic development and territorial design. The 1960s saw the initiation of the first economic development plans, which focused on Seoul and Busan as growth poles. From 1972, the first "territorial development plan" was launched, and sought to control excessive urban expansion through the use of green belts. Under the "New Economy Plan" (1995-2011), regional development projects for the "Busan and Gyeongnam" region are under preparation, in which Busan's local economy is planned to be restructured in favour of high-tech and high value-added industries, with plans to build industrial and information-technology parks. Special attention is being given to strengthening co-operation between local, regional and central governments. To ensure balanced development based on close ties between Busan and its surrounding areas, steps will be taken to strengthen the regional administration and implement *regional urban planning*.

158. There has long been a need to address the issue of co-ordination between lower local governments units that are part of the same urban area and, at the regional level, between provinces and metropolitan cities. The intention to establish a regional urban planning scheme to deal with these challenges was reaffirmed in 2003 by new legislation on the use and planning of national territory. At present, the first stage in the process of developing a regional urban plan sees the Ministry of Construction and Transport create a planning area. The Minister must then submit a request to the *Central Deliberative Planning Committee* created within the Ministry. Within the boundaries defined by the Minister, it is the chief executive of the regional government responsible for the basic local governments within its jurisdiction who prepares the regional urban plan that will subsequently be approved by the Ministry, after having submitted it to the *Committee* for deliberation. The master plans drawn up at the more local level must comply with this regional urban plan, which itself covers a number of local governments. Regional urban planning can have a number of different aspects, including transportation. In Korea, the Act is aimed at reorganising community areas, transportation facilities, green spaces and recreation areas, etc.

159. The implementation of urban planning across a number of local governments is being encouraged by revising the green belt system. The Korean government has, since 1998, envisaged reforming the principle of green belts around large and medium-sized cities. The system has remained unchanged since the 1970s and is thus out of step with contemporary needs. At present, the policy change that appears most likely would eliminate the 7 green belt areas around medium-sized cities and partially reorganise the green belts of the other 7 metropolitan areas, including Seoul-Gyeonggi-Incheon (*i.e.* the capital region), Daegu, Gwangju, Daejeon, Masan-Changwon-Jinju, Ulsan and Busan. This reorganisation of the metropolitan green-belt systems would be based on the respective regional urban plans as well as the results of

environmental assessments. Since 1971, Busan's green belt has been extended with the city's expansion. From an initial total area of 86.20km², the green belt covered 41% of Busan's territory by 2004. This area is located mainly in Gangseo-*gu* to the west and Gijang-*gun* to the east. Four main criteria have been used to define Busan's regional urban planning area: the number of people who work outside their place of residence, the number of farming households, the population density, and the current state of land use. This area covers Busan Metropolitan City, Yangsan-*si* and Gimhae-*si*¹⁷ of Gyeongnam, *i.e.* 1 700 km² and 4 330 000 inhabitants within a 30 km radius.

160. The proceedings of the Central Deliberative Planning Committee were released in May 2000 and a public presentation was made in December 2002 (a second was planned for May 2003). This first generation of urban planning (in force until 2020), developed through the joint initiative of Gyeongnam and Busan, has given priority to reorganising the green belt around Busan. The emphasis of the reorganisation is to provide a better distribution of activities and more coherent land use within the Busan metropolitan area.

161. There are currently two regional urban plans for Busan. The first plan is the *Busan Metropolitan Area Plan* which includes Gimhae, Yangsan and Busan – all of them part of Gyeongnam Province¹⁸. In the Busan Metropolitan Area Plan, the three cities together prepared a joint plan in order to get the approval and the financial support – via conditional transfers – from the central government. The support of the central government is sectoral, meaning that the responsible ministry varies with the nature of the policy. On a road project, for example, 50% is financed by the Ministry of Transportation and the remaining 50% by BMC. The initial Busan Metropolitan Area Plan was signed in 2003. The second plan that applies to is the *Busan Metropolitan City Plan*, which is also referred to as the “master plan”. This plan is drafted in conformity with the Busan Metropolitan Area Plan. The “master plan” sees the autonomous districts prepare their own plans and submit them to Busan Metropolitan City to reflect their own needs, and then the city decides which parts it will retain in the City Plan.

162. The directors of urban planning in Busan and Gyeongnam meet occasionally on an informal basis, while the directors of urban planning in Busan, Gyeongnam and Ulsan have, whenever necessary, held *ad hoc* meetings organised by the central government. They are thus evidently in a position to discuss the above-mentioned infrastructure-related issues. Their organisational learning and further efforts could help to refine a vision of comprehensive development in the “BKU economic zone” (which includes Busan, Kyungnam [Gyeongnam] and Ulsan). Meanwhile, the “BKU Committee”, which is composed of governors and vice-mayors of the three cities/provinces, held two meetings in 2003.

163. The relationship between the planning going on at the various administrative levels evidently needs to be clarified. Moreover, how much of the above process will be decentralised and in what manner constitutes an essential concern. In order to maintain regional planning coherence, and in fact bolster it, it would probably be best to design a more consultative process concerning the planning and awarding of grants. But then the need to foster area-wide collaboration on development suggests that the scope of the planning needs to be expanded. Hence, the directors of urban planning should meet on a more formal basis, and more frequently, in order to reflect the significance of regional issues. The central government could facilitate this process by such means as providing incentives through the subsidy system or ceding some authority. Of signal importance is constructing a process wherein the local actors see one another as partners in a collaborative process rather than competitors.

Fostering co-operation with the private sector

164. A main problem in the Korean case as a whole is the legacy of state leadership and the lack of formal bodies for consultation and co-operation with the private sector. At the local level, where the emphasis has historically been on implementing policies decided at higher administrative levels, there was

even less formal partnering and consultation. However, the shock of the Asian currency crisis and Korea's IMF bailout in the late 1990s has clearly put a premium on innovation. In the wake of that shock, and in conjunction with trends elsewhere in the world, the Korean public sector has greatly increased its co-operation with the private sector. Two notable trends in this regard are the turn towards public-private partnerships (PPP) and formal consultation with the private sector (Kim, nd). PPPs differ from the purely government-designed and managed projects in that the public sector awards the contract for the construction of the facility or provision of the service and then merely supervises. The private sector actor becomes the agency that actually builds and operates the facility or provides the service. The significance of this in the Korean case is that the Ministry of Planning and Budget has estimated that, over the 10 years from 2003, public funding for infrastructure will be USD 15-30 billion less than anticipated requirements (PICKO/KRIHS, 2003).

165. The opportunities that this affords Busan are obvious. The urban authorities have published a number of visions for development that emphasise provision of new infrastructure in the local port facilities as well as a simultaneous shift towards a more IT-oriented economy. But at the same time, the city has an overhang of debt from previous large-scale projects (including the Asian Games) to cope with. To the extent that the city adheres to the debt-management plan reviewed earlier, its capacity to finance these new infrastructures would seem quite constrained. Hence, there are plenty of infrastructure plans (especially relating to the port) where getting the private sector more involved would appear to be advantageous.

166. Busan has in fact some experience with PPP and is currently negotiating additional projects, such as the construction of underground consumer-oriented shopping and parking facilities as well as other projects. Moreover, the Korean Act on PPP is frequently revised to take cope with problem areas as well as take advantage of new opportunities that have become evident. In addition, the Private Infrastructure Investment Center of Korea appears to act as a reasonably objective third party (between the public and private sectors) in reviewing proposals for projects.

Conclusion and recommendations

167. There is ample reason to be optimistic about Busan's prospects for benefiting from socioeconomic trends in Korea generally as well as the continuing drive for decentralisation. For one thing, Busan is already favoured by the fact of being a large metropolis and thus having access to resources and opportunities that vastly outstrip those available to most urban governments, including its counterparts in Korea. Busan also gives evidence of substantial willingness to make use of many of these options.

168. On the other hand, there are some organisational and ideational obstacles to overcome. Sheer size alone does not guarantee success, and in some cases it can be a detriment. Local governments in Korea are generally large and have hitherto been well-suited to the functional requirements of the communities they manage. Yet, this same scale tends to make them less sensitive to changing needs and opportunities, especially the increasing need to co-operate with neighbouring administrations and foster tighter community bonds and local input into policymaking. Taken in tandem with the legacy of top-down administrative relations, which has left a tendency to rely on the central government, there are numerous areas for reform.

169. The main recommendations of this chapter centre on local effort. First, on the revenue side, Busan needs to be looking at how it can modernise and broaden its tax base within the extant framework of intergovernmental relations. The rate- and base-setting flexibility within the current system could perhaps be exploited by shifting more towards the taxation of asset values rather than transactions. At the same time, the system could be modified to extend developmental incentives through split rates and similar "smart tax" options. The potential concern that tax reform might invite a voter backlash could be dealt with

by opening the decision-making process – *e.g.*, through public hearings – to community groups and receiving their input. This approach would simultaneously inform residents of the city's needs, the hard choices involved in addressing them, and the consequences of not doing so. In an era of “participatory governance” and decentralisation, this kind of broad, consultative process seems an ideal mean for energising the public debate as well as injecting a strong dose of realism into it. Busan should also try, as much as possible, to get in front of the decentralisation process by looking for innovative solutions that address its own needs as well as those of the broader region. If ever there were a fiscal decentralisation process open to new ideas in metropolitan finance, it is Korea's at present.

170. Second, on the expenditure side, Busan needs to clarify expenditure assignments from the basic local level to the national tier. To some extent, these issues are already on the table in the decentralisation process, but Busan ought to ensure that they get the degree of consideration they deserve. Rationalising roles at the local level is an important means to achieve significant cost savings or at least boost efficiency and quality in the delivery of services. The main recommendations concerning governance are to find innovative mechanisms to encourage horizontal co-operation. Reform of the conditional grants programme is a potential means to this end. Grant programmes have been used to encourage a variety of public-policy goals with national or regional significance, including amalgamation and conservation. Given Korea's deficit of incentives for local co-operation, it makes sense to compensate through the intergovernmental transfer programme. In addition, further incentives can be built up by the use of accounting that costs the social and environmental costs of not resolving problems.

171. Another area where reform is imperative is capacity building. The central government's commitment to reform indicates that there will continue to be major decentralisation of previously centralised functions. Still, the kind of innovative, vibrant urban environment that Busan's developmental goals foresee cannot be built by simply replacing executive authority at the national level with its counterpart in regional government. Busan's efforts so far to draw on local civil society are laudable, but must be done with more urgency. Decentralisation implies that the ideas, interests and institutions at the heart of the old model of development are fading from the scene, so the challenge is to build a productive nexus of organisations, concepts and incentives that can take their place.

172. The role of the central government is also critical. Decentralisation is a laudable goal, but great care must be taken to craft reforms that bolster local governments rather than simply devolve whatever responsibilities and resources make their way through the gauntlet of politics at the central level. Decentralisation in Korea is of course in large part animated by a concern to avoid getting bogged down in obstructionism, but that leaves open the question of whether the process involves sufficient attention to the diverse needs of local governments. It is not possible, of course, for the central government to cover this diversity in a single framework of reform. But it can encourage the locals to consult among one another in order to identify and address these needs on a regional basis. Hence, the central government should be seeking to foster local co-operation as much as possible. Redesign of the grant system is one possible option. An additional option is working with the locals to discuss the possibilities of redrawing some of the urban boundaries to take account of new functional needs and opportunities. The central challenge here is to shore up local democratisation in tandem with ongoing fiscal and administrative decentralisation.

NOTES

1. The Local Autonomy Act defines various units of *si*, *gun*, *eup*, *myeon*, according to demographic criteria. When a *myeon*'s population exceeds 20 000, it can change its status to that of a *eup*. A *eup* can become a *si* when it reaches the demographic threshold of 50 000 inhabitants. When the population of a *si* exceeds 1 million, it can then become a *si* with metropolitan status. Moreover, in the 1990s, following the re-establishment of local democracy through the direct election of local officials, the five metropolitan areas classified as "*si* directly run by the government (without going through the *do*)" were renamed "*si* with metropolitan status".
2. In 1942 (the year in which the division into *gu* was first implemented in Busan), Busan was divided into six *gu* (*Jung-gu*, *Seo-gu*, *Dong-gu*, *Yeongdo-gu*, *Busanjin-gu* and *Dongnae-gu*). Since then, many new *gu* have been established: *Nam-gu* (in 1963), *Buk-gu* (1978), *Haeundae-gu* (1980), *Saha-gu* (1983), *Geumjeong-gu* (1988), *Gangseo-gu* (1989) and *Yeonje-gu*, *Suyeong-gu* and *Sasang-gu* (1995).
3. *Gangseo-gu* covers an area of 23.23 km², while the smallest *gu*, *Jung-gu*, covers only 2.8 km². There are similar differences in population, for *Gangseo-gu* has only 53 000 inhabitants while *Busanjin-gu* has 416 000.
4. Backing up this committee at the political level, is the current President of the Korean Republic, Roh Moo-Hyun. A strong advocate of decentralisation, President Roh, was elected on December 19, 2002, and his tenure became effective from February 25 of the following year. PCGID is composed of six executive committees taking charge of decentralisation, administrative reform, human resources management reform, fiscal reform, e-government, and change management for public administration.
5. This committee is composed of 19 members, among which representatives from the central government (Prime Minister, MOGAHA, Ministry of Planning and Budget, Ministry of Government Legislation, one deputy minister, the chief director of Prime Minister's cabinet) and local experts.
6. Non-tax income refers to user fees, funds raised via participation in profit-creating businesses and land development, and funds carried over from previous fiscal years.
7. The FII is developed by the Ministry of Government Administration and Home Affairs (MOGAHA). It is defined as the sum of local tax and non-tax (own source revenue) divided by the sum of own source revenue and intergovernmental grants.
8. The fund is a mixture of tax sharing and categorical grants, and includes 100% of the national Liquor Tax, 14.2% of the Transportation Tax and 12.67% of Special Taxes levied on agriculture and fisheries. It is allocated on the basis of such indices as the length of roadways, population size, and so forth.
9. This definition does not include all national tax revenues, as it excludes the Transportation Tax, the Education Tax, the Special Tax for Rural Development, Customs Duties, and the Liquor Tax.
10. Including from the liquor tax (100% of its revenues), the transportation tax (14% of its revenues) and the special tax for rural development.
11. A concise outline of the issues can be found at City of Winnipeg (2003).
12. Ulsan Metropolitan City is the only one without any training institute because it used to belong to Gyeongnam Province and was upgraded into a metropolitan city only recently in 1997.

13. Economic development expenditures include those on agriculture and forestry, regional economic development, traffic management and others while social development includes health, education, social security, housing and related spending (Ahn, 2003).
14. The *gun*, has a tax system that is distinct from that of the 15 other *gu*. It has eight rather than five taxes, *i.e.*, the automobile tax, the driving tax, the tobacco consumption tax, the resident tax, the property tax, the aggregate land tax, the business office tax and the urban planning tax.
15. For example, in the FY 2001 budget of Suyeong-*gu*, tax revenues accounted for 16.39% of total revenues, non-tax revenues for 29.38%, the adjustment transfer fund for 21.25%, the national cross-subsidisation fund for 3.15%, and the subsidy for 29.83%.
16. In 1995, throughout long discussion and a careful preparation process that included public hearings and public opinion polls, 41 cities and 39 counties were merged into 40 cities and the administrative reorganisation for three metropolitan areas was revisited.
17. Because of its geographical location, Gimhae-*si* is subject to two regional urban plans, that of Busan to the east and that of Masan-Changwon-Jinhae to the west. This south-east area of the country has been the most heavily industrialised region of the country since the 1960s. With a geography that allows for port facilities favourable both to imports and exports, a number of large complexes and urban areas have developed along the coast; today the regions of Masan-Changwon-Jinhae, Busan and Ulsan are subject to regional urban planning. In the overall scheme presented by the plan, Busan will act as the main centre for these regions.
18. Not including Ulsan because Ulsan is already another metropolitan city and from the central government's point of view, Ulsan has other functions.

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