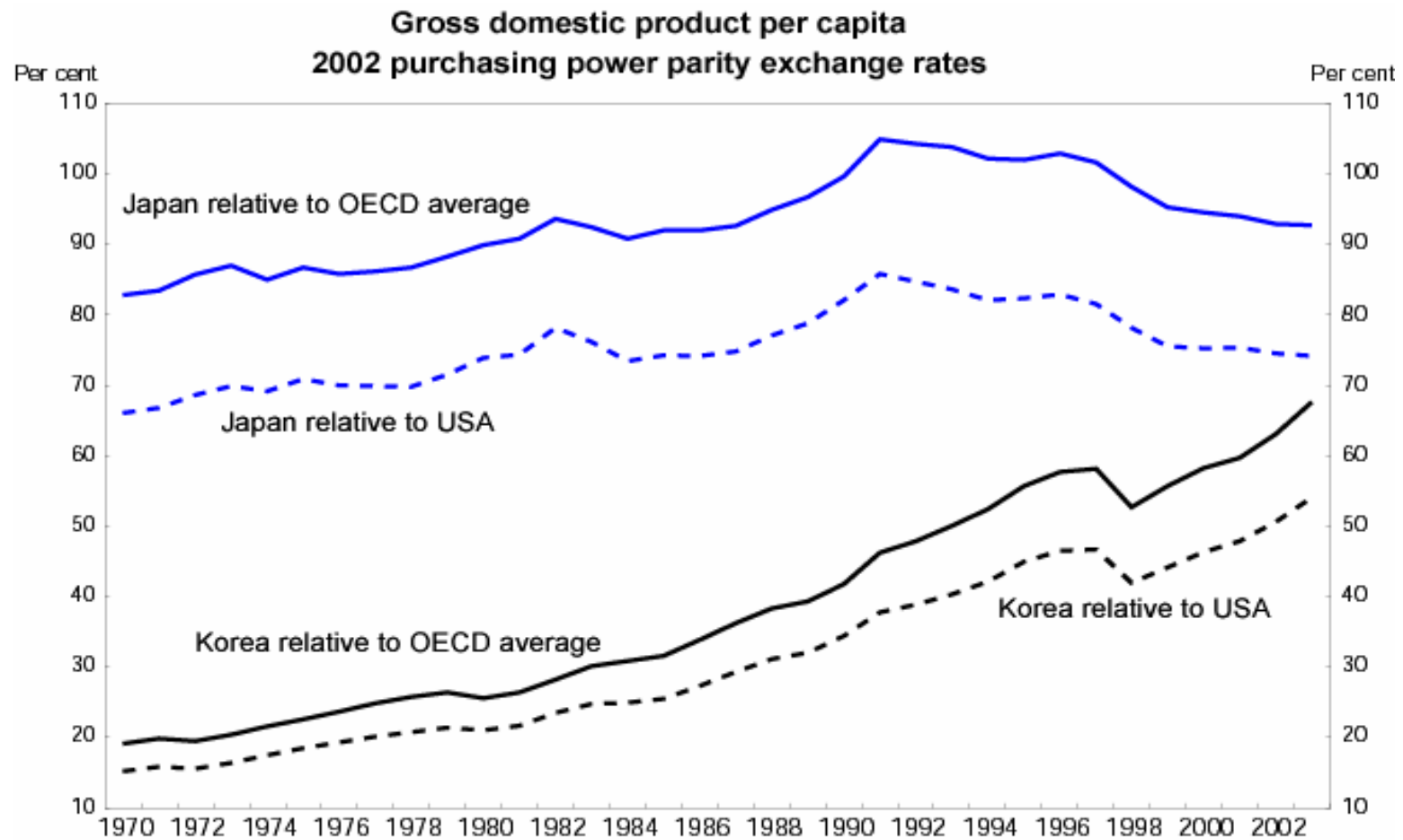


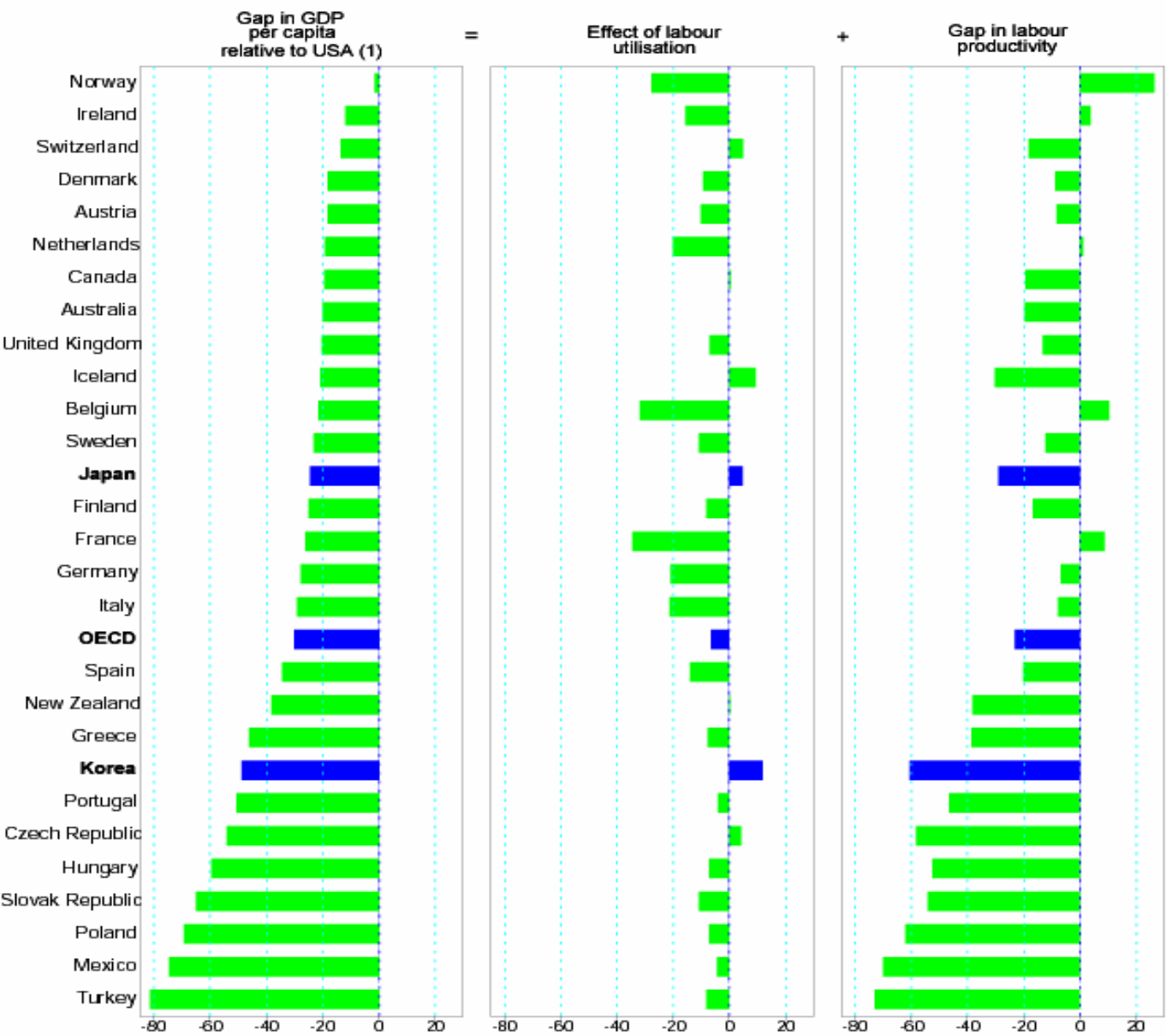
# **The 2005 Economic Survey of Korea**

**Randall S. Jones  
Head, Japan/Korea Desk  
OECD**

## Korea's per capita income is converging to the OECD average



# Explaining the income gap



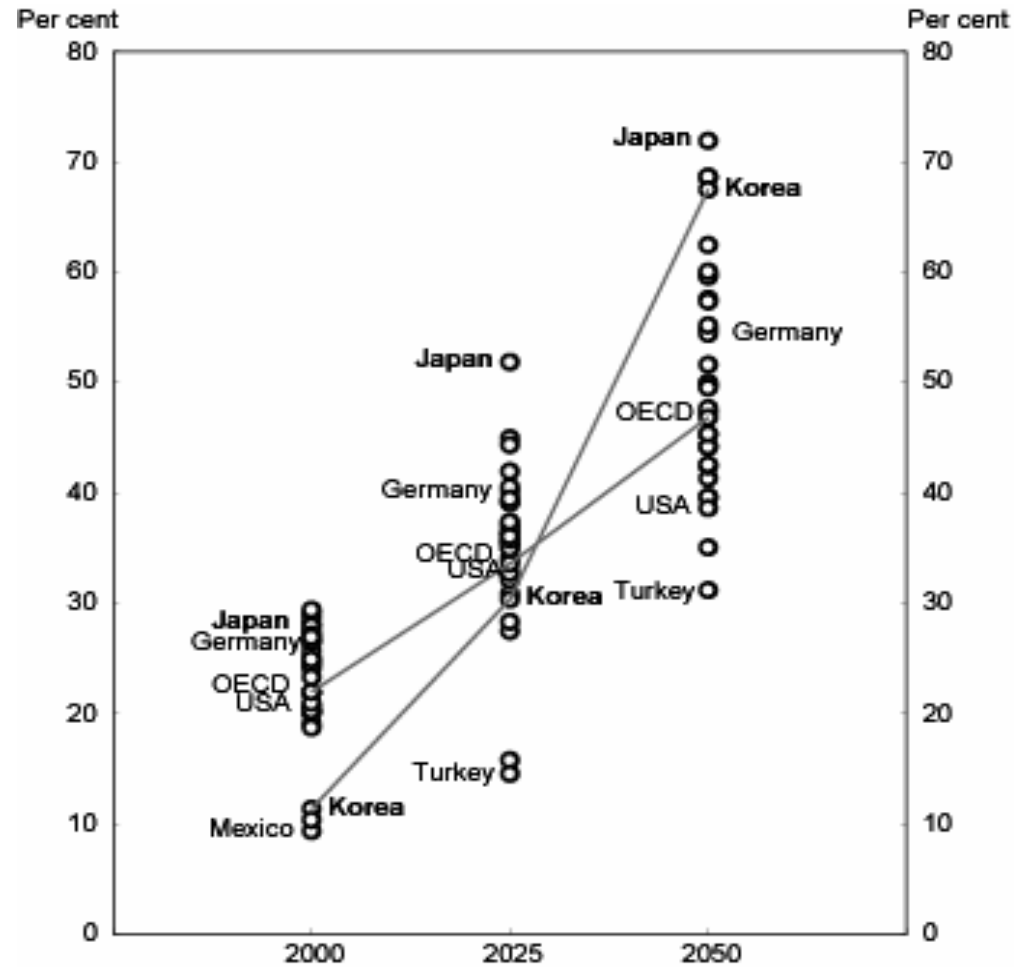
## Korea's potential growth rate

Annual average contribution in percentage points					
	Potential growth (per cent)	Labour	Physical capital	Total factor productivity	<i>of which:</i> Human capital
1981-1990	7.8	1.7	3.6	2.5	0.8
1991-2000	6.3	1.2	3.2	1.9	0.9
2003-2012					
Scenario A <sup>1</sup>	4.6	0.6	1.9	2.1	0.6
Scenario B <sup>2</sup>	5.2	0.6	2.0	2.6	0.6

1. Assumes that Korea's economic system and international openness remain at the current level.
2. Assumes that Korea's economic system is improved through structural reform and increased international openness.

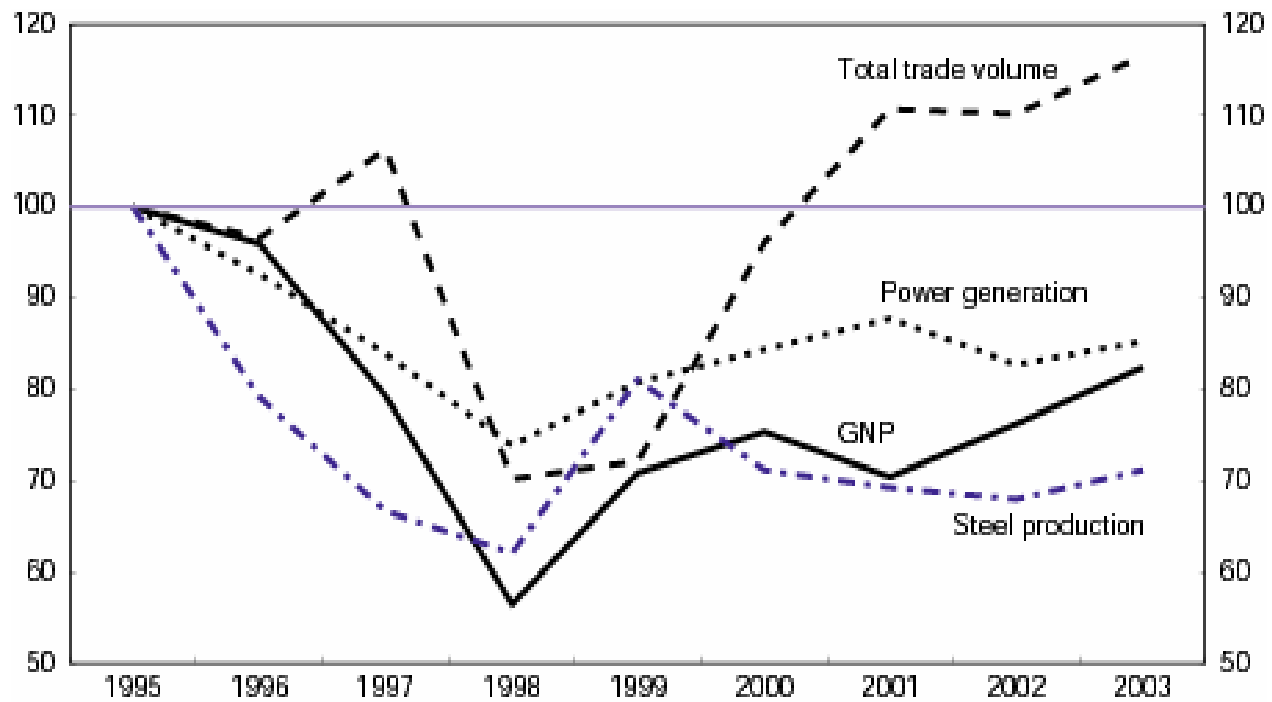
*Source:* Han *et al.* (2002).

# Population ageing in Korea will be the most rapid in the OECD area



# North Korean economic trends

1995 = 100



# Comparison of North and South Korea

2003 unless otherwise noted

	(A)	(B)	(A/B)
	North Korea	South Korea	Comparison (%)
Population (millions)	22.5	47.9	47.0
GDP (billion US\$)	18.4	608.6	3.0
GDP/GNP per capita (US\$)	818	12 720	6.4
Total trade (billion US\$)	2.4	372.6	0.6
Exports	0.8	193.8	0.4
Imports	1.6	178.8	0.9
Inter-Korean exports (millions US\$ in 2004)	258	439	58.8
Commercial exports <sup>1</sup>	258	90	286.7
Non-commercial exports <sup>2</sup>	0	349	--
Industrial statistics			
Power generation (100 million kWh)	196.0	3 224.0	6.1
Steel production (million tonnes)	1.1	46.3	2.4
Cement (million tonnes)	5.5	59.2	9.4
Agricultural statistics			
Grains (million tonnes)	4.3	5.0	85.0
Fertiliser (million tonnes)	0.4	3.3	12.6

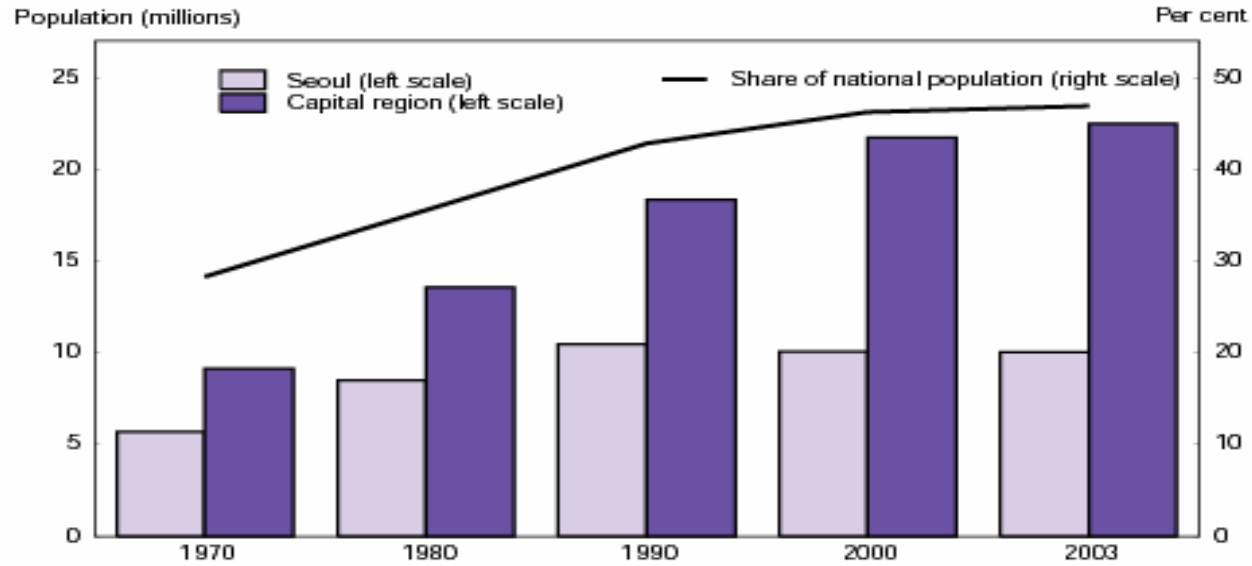
1. Processing-on-commission trade accounts for about half of commercial trade.

2. Includes humanitarian aid, Mt Geumgang Tours and the construction of the Gaesong Industrial complex.

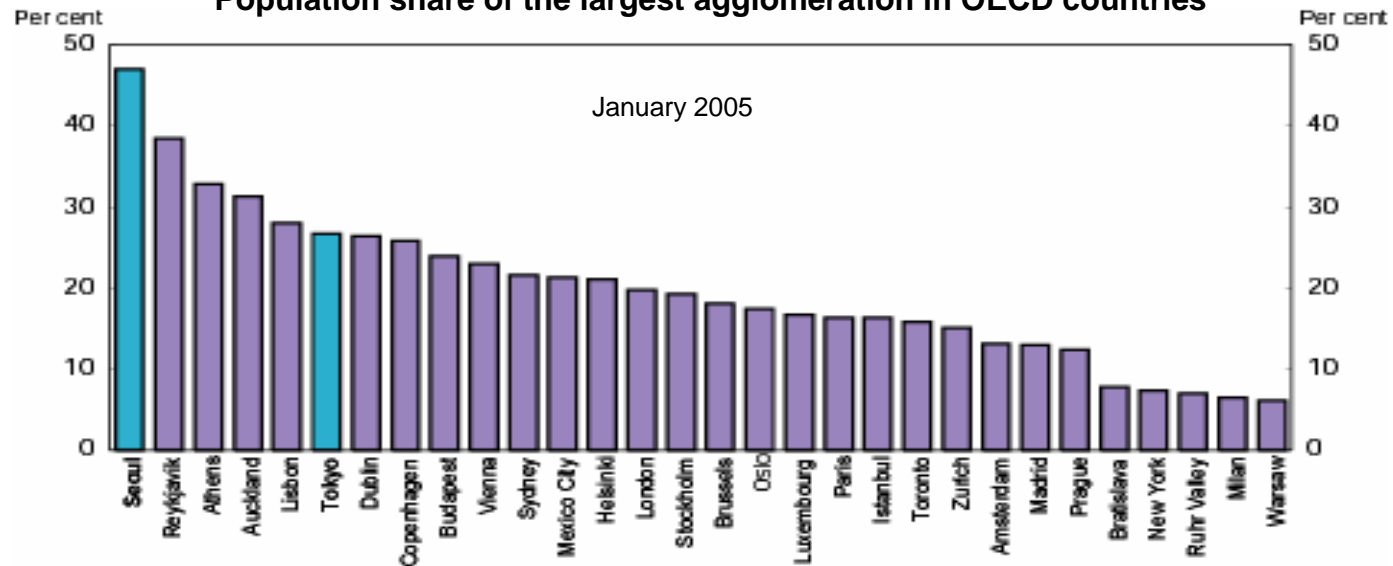
Source: Ministry of Unification, Republic of Korea.

# Increasing concentration in the capital region

## Share of the capital region in Korea's total population



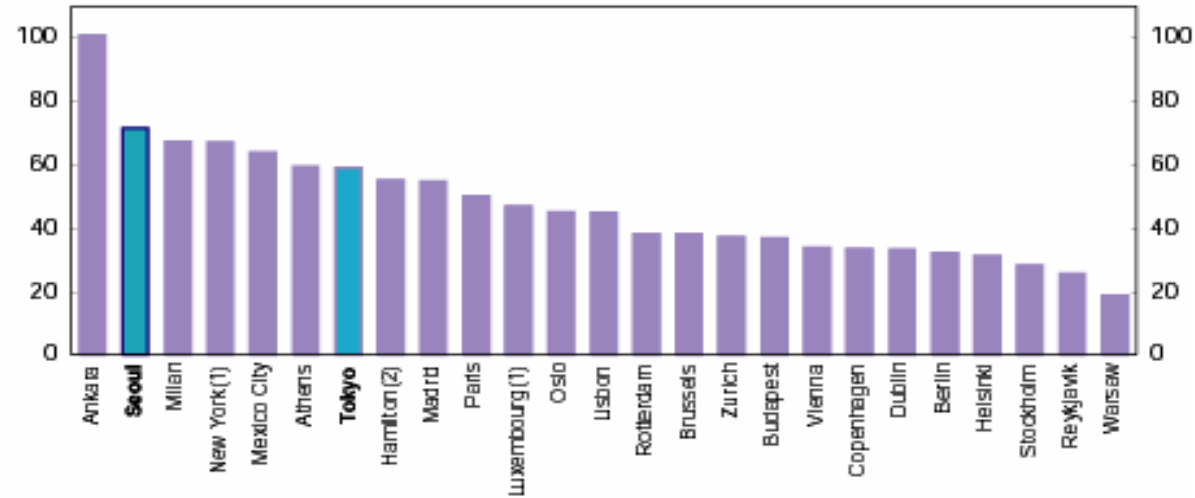
## Population share of the largest agglomeration in OECD countries



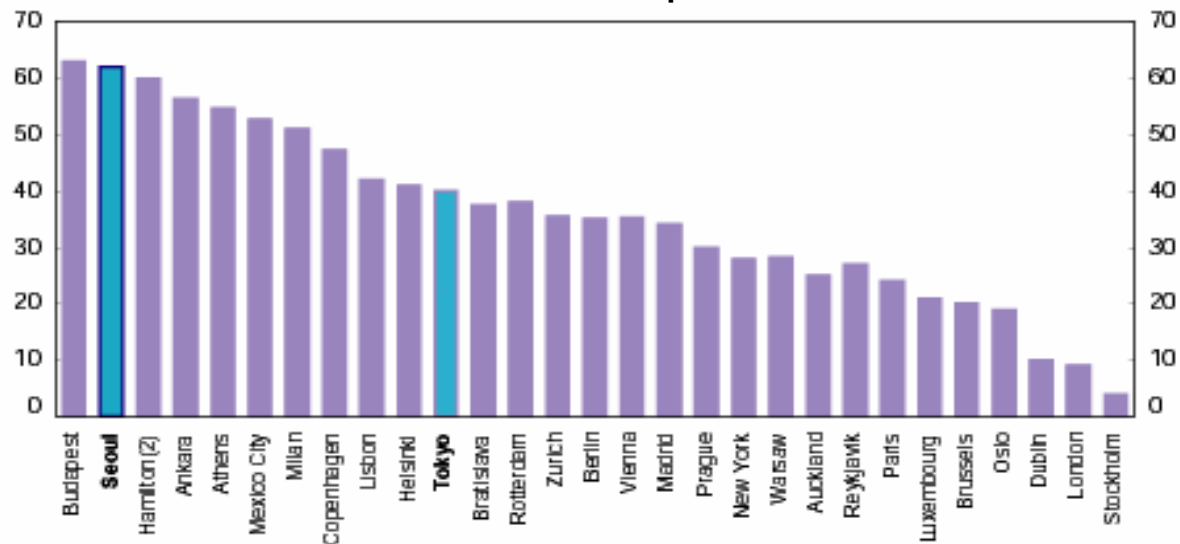
# Air quality in major OECD cities

Ng / M3

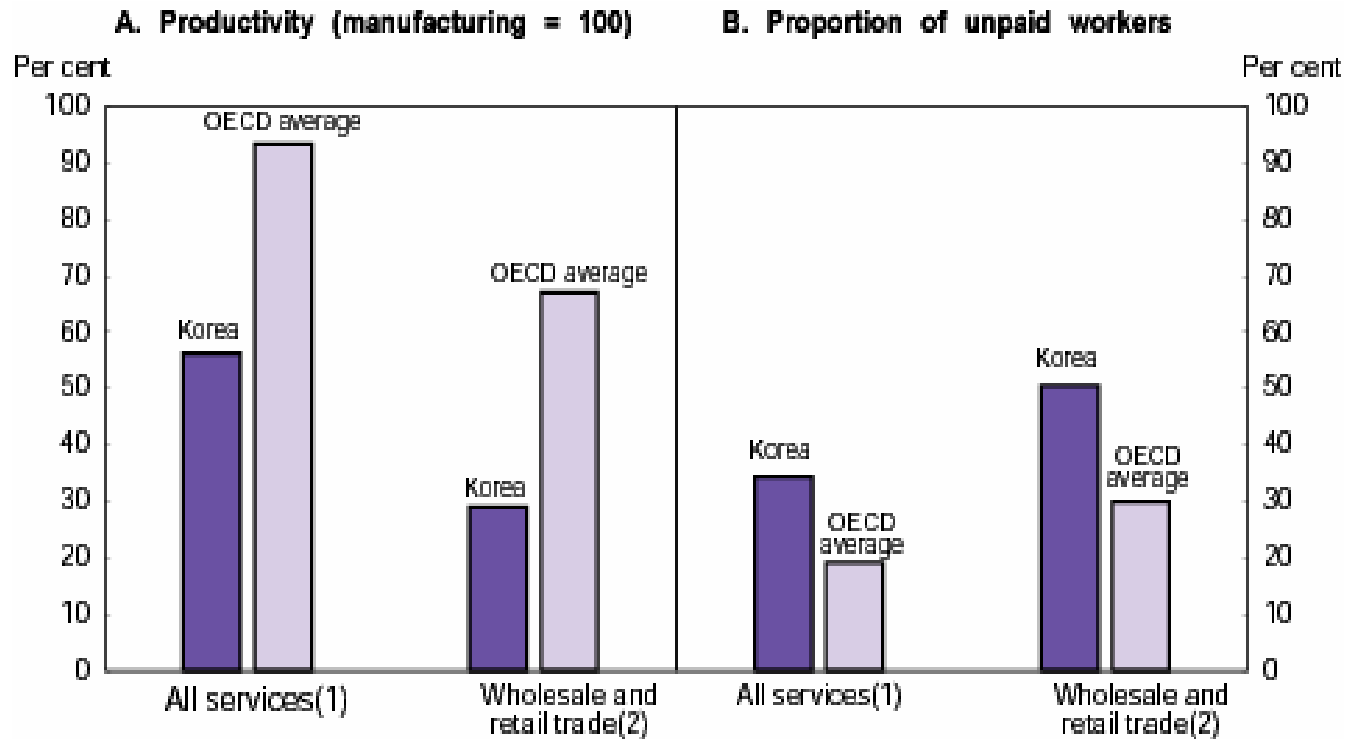
## A. Concentrations of NO2 in 2002



## B. Concentration of particulates

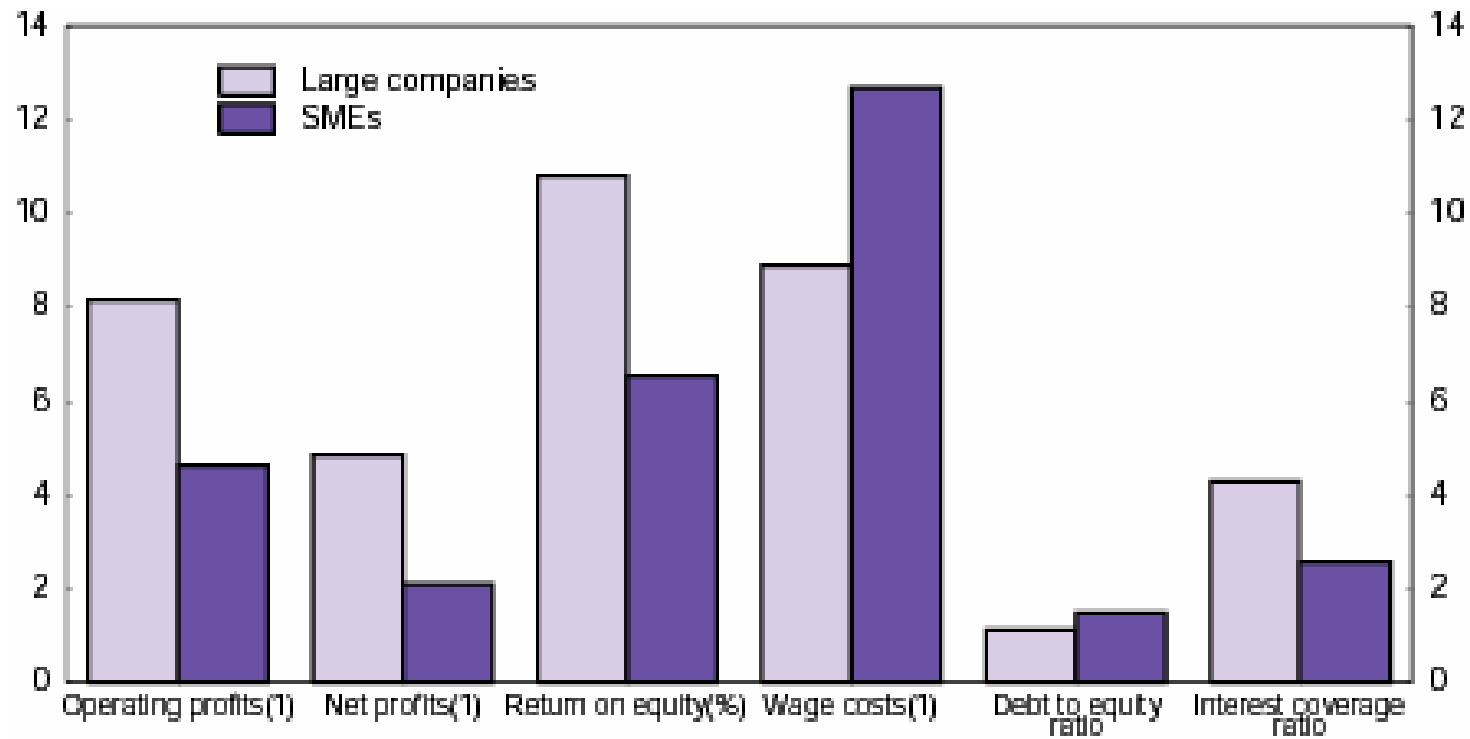


## Korea has a large productivity gap between manufacturing and service sectors



1. ISIC codes 50-99.
2. Including hotels and restaurants (ISIC codes 50-52 and 55).

## The performance of SMEs is much weaker than that of large companies

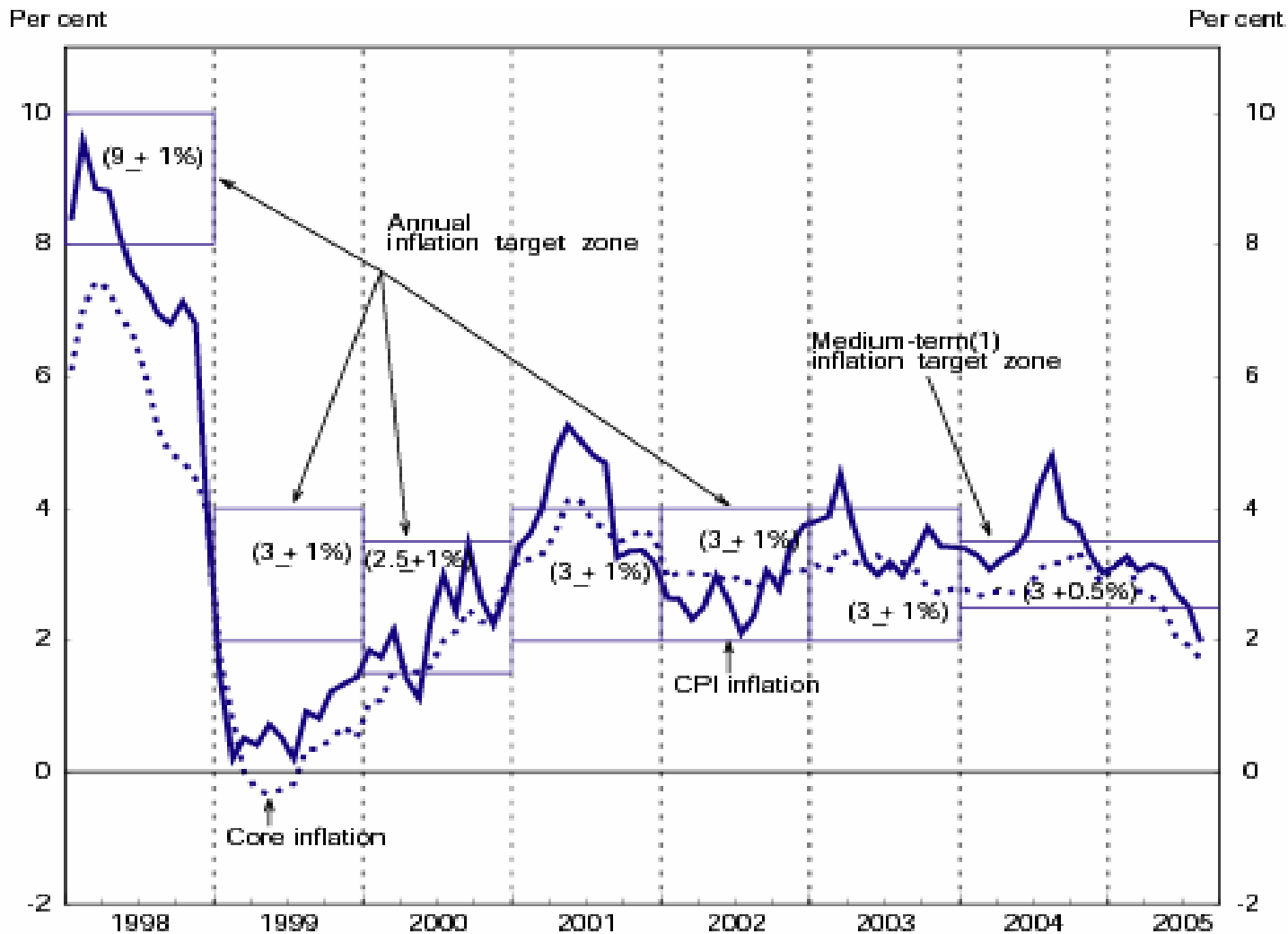


1. As per cent of sales.

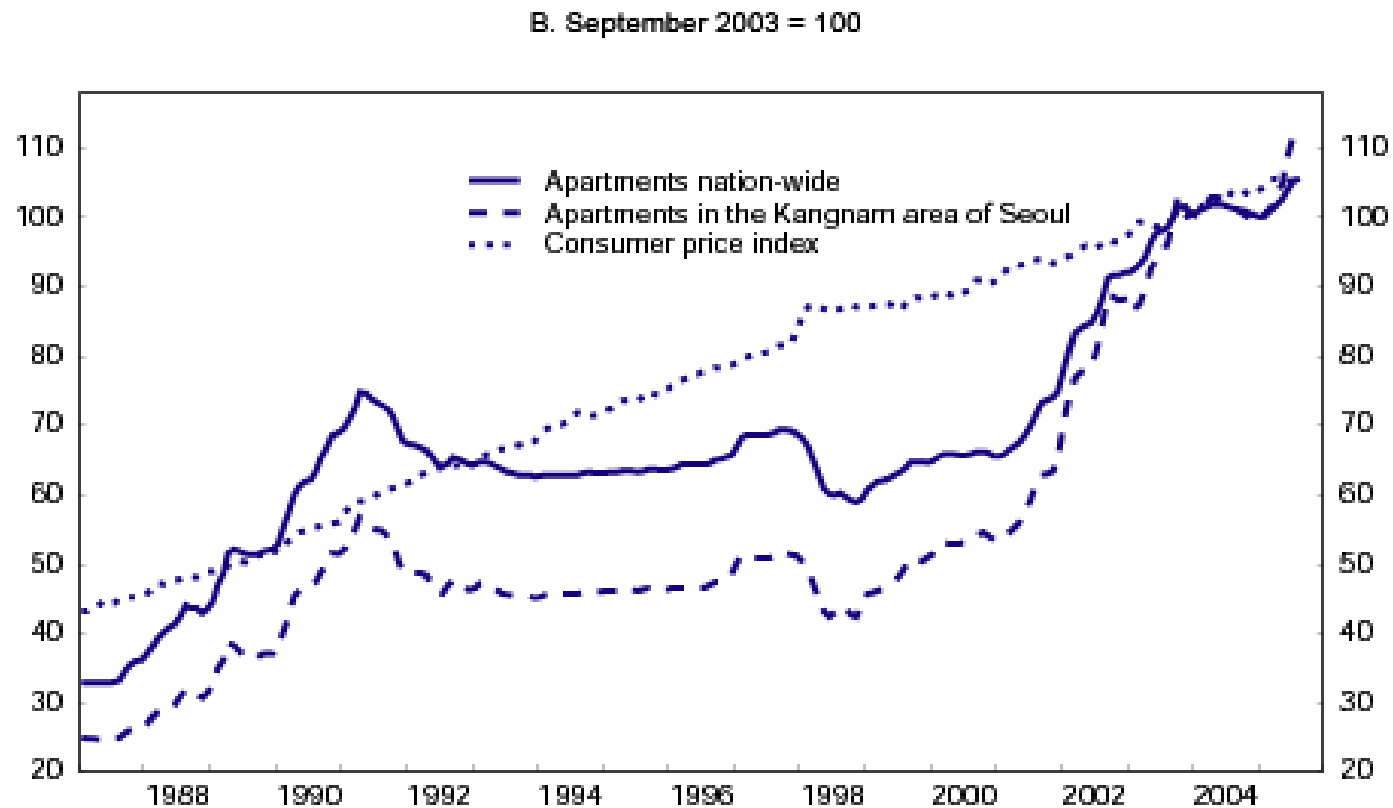
## **To continue the convergence process and successfully meet the challenges facing Korea**

1. Implement sound macroeconomic policies and reform the public pension system.
2. Upgrade the national innovation system to promote faster productivity gains.
3. Improve the functioning of the labour market, while boosting participation rates.
4. Address remaining problems in the corporate and financial sectors.

**Although inflation is below target,  
the central bank increased interest rates in October**

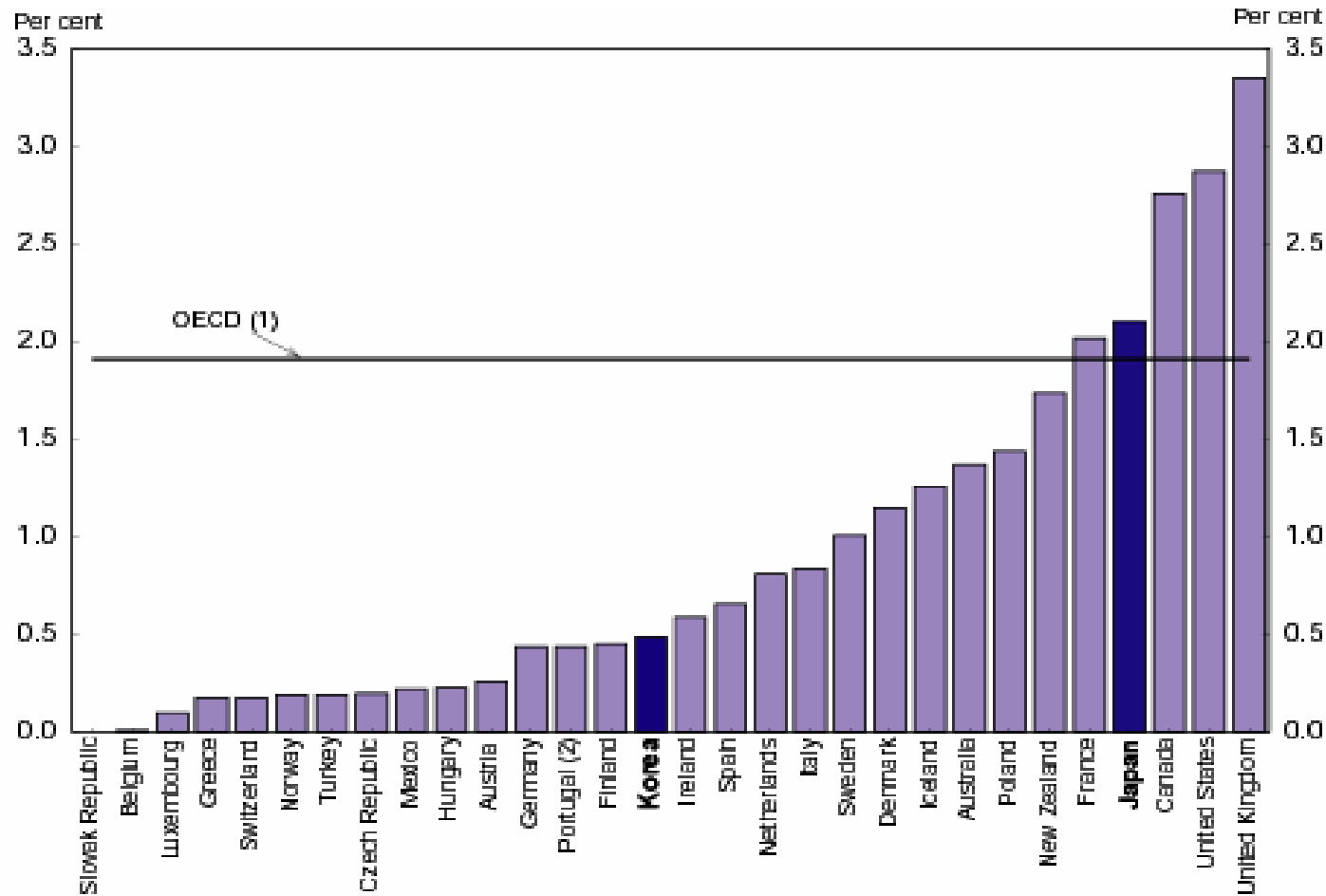


## There is concern over rising housing prices



# The solution is to raise taxes on property

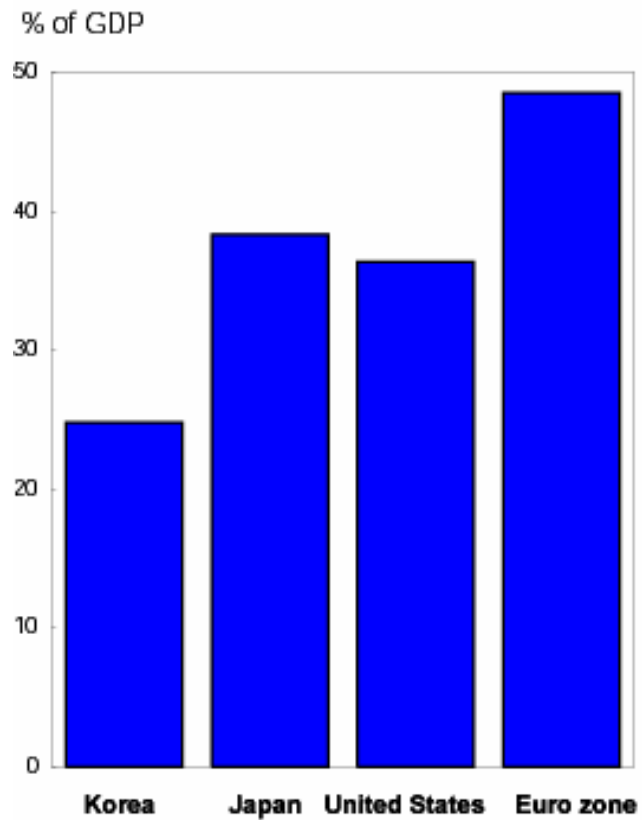
Per cent of GDP



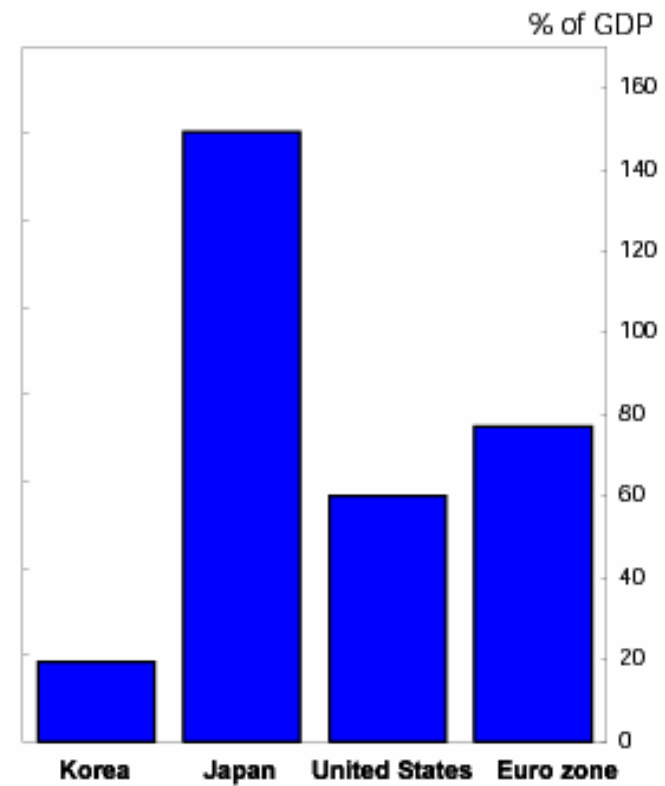
# Government spending

Per cent of GDP in 2002

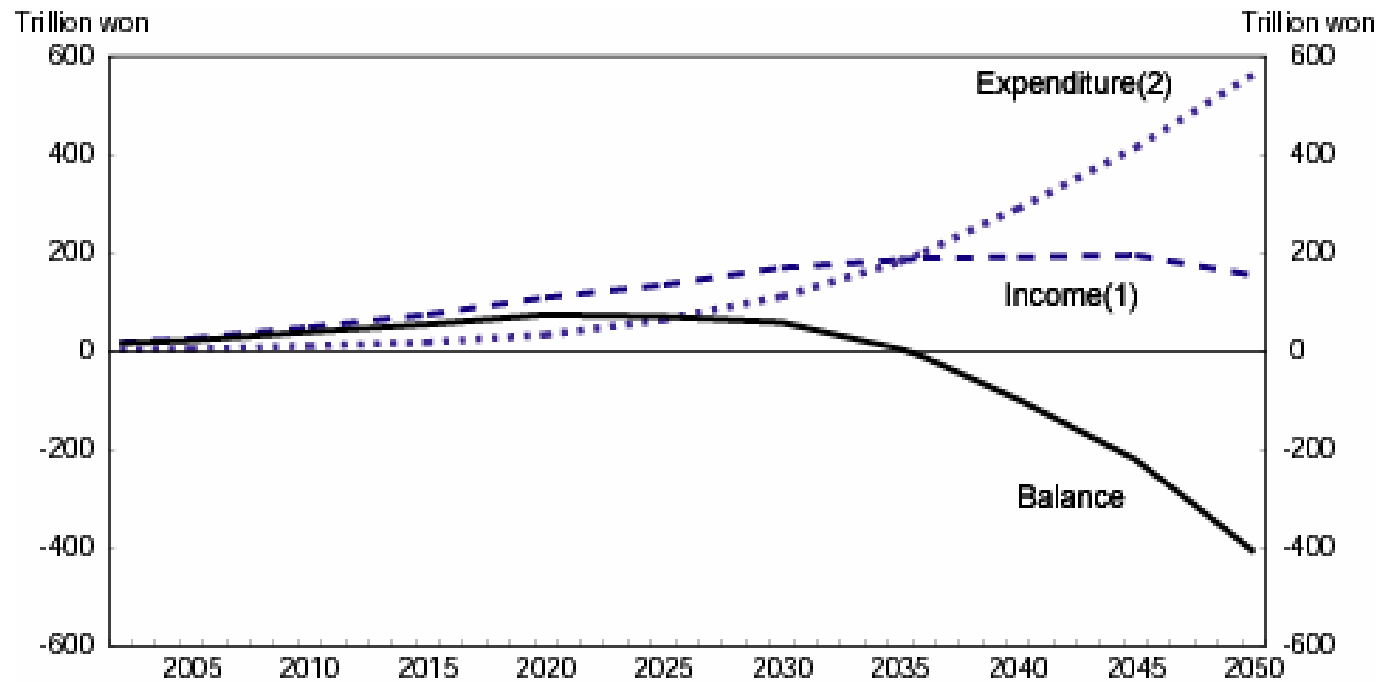
**A. Government spending**



**B. Government debt**



# The public pension system is unsustainable and needs to be reformed



1. Including investment earnings.
2. Including administrative costs.

# Reform of the pension system

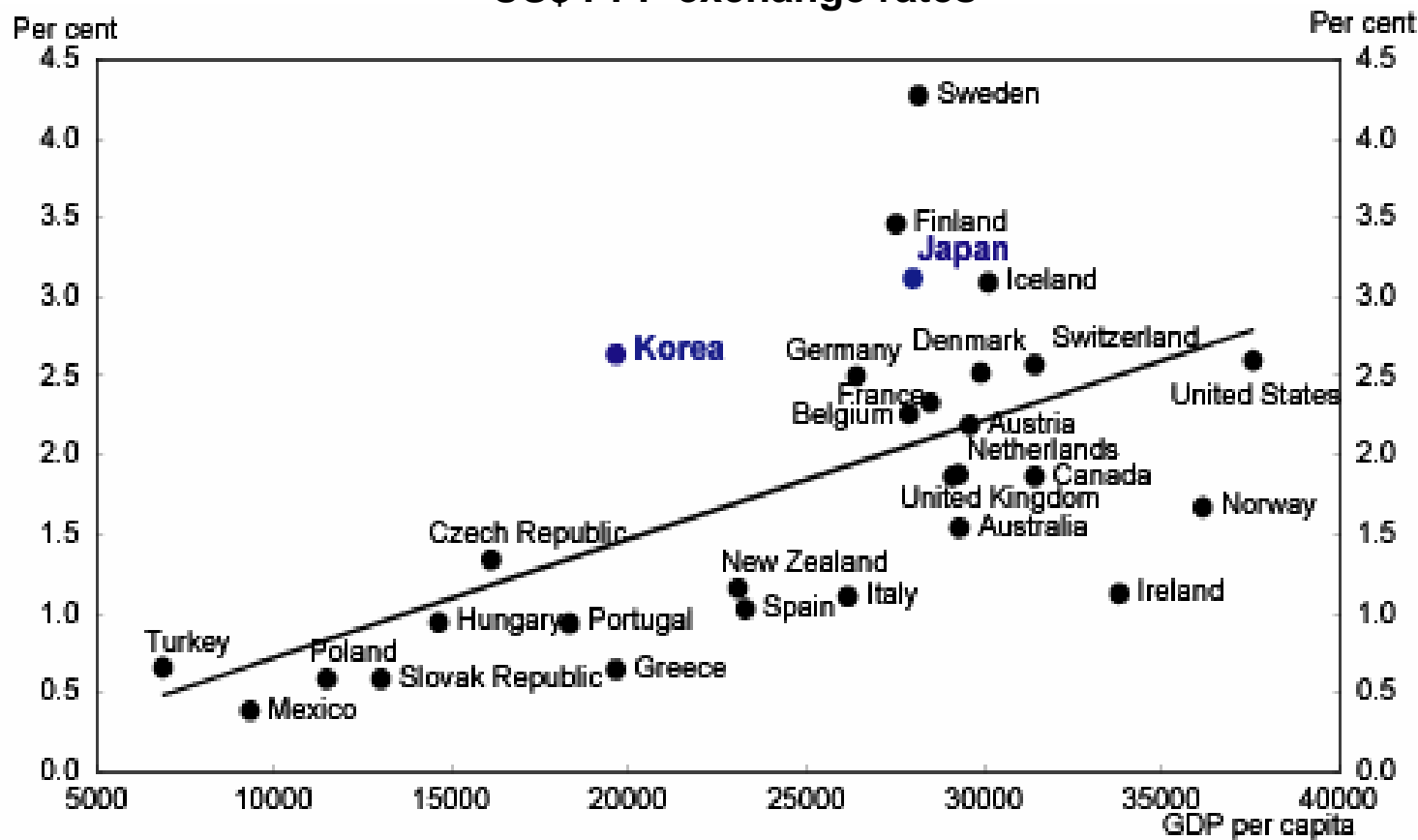
- Immediately reduce the replacement rate (from 60%) and raise the contribution rate (from 9%).
- Establish a two-tier public pension system that aims at a total replacement rate of about 40%:
  - A tax-financed universal pension to prevent poverty among the elderly
  - An earnings-related pension
- Introduce a corporate pension system based on defined contributions

## **To continue the convergence process and successfully meet the challenges facing Korea**

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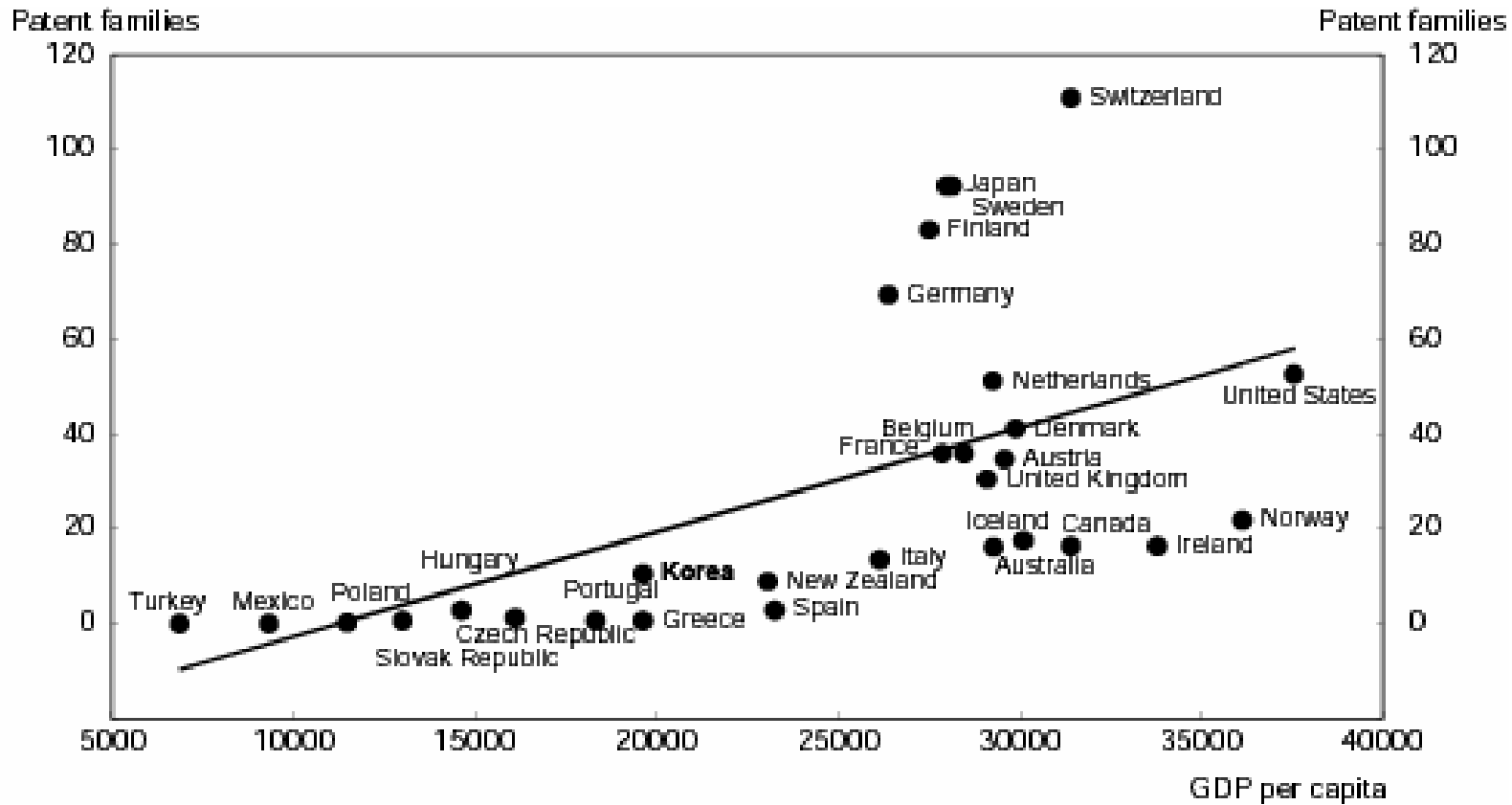
# Korea has a high level of R&D inputs

R&D spending as a share of GDP in 2003  
US\$ PPP exchange rates



# but a low level of outputs

## Triadic patent families<sup>1</sup> per million people, 2001



1. Patents filed in the patent offices in Europe, Japan and the United States to protect the same invention.

## Universities play a small role in R&D

### A. R&D Funding

	Allocation between R&D actors <sup>2</sup>				
	Share of total R&D spending	Government	Universities	Business enterprises	Total
Government <sup>1</sup>	24.2	52.2	30.5	16.9	100.0
Universities	1.3	0.3	98.1	1.6	100.0
Business enterprises	74.0	1.4	1.9	96.7	100.0
Foreign sources	0.4	1.7	10.3	88.0	100.0

### B. Sector performing R&D

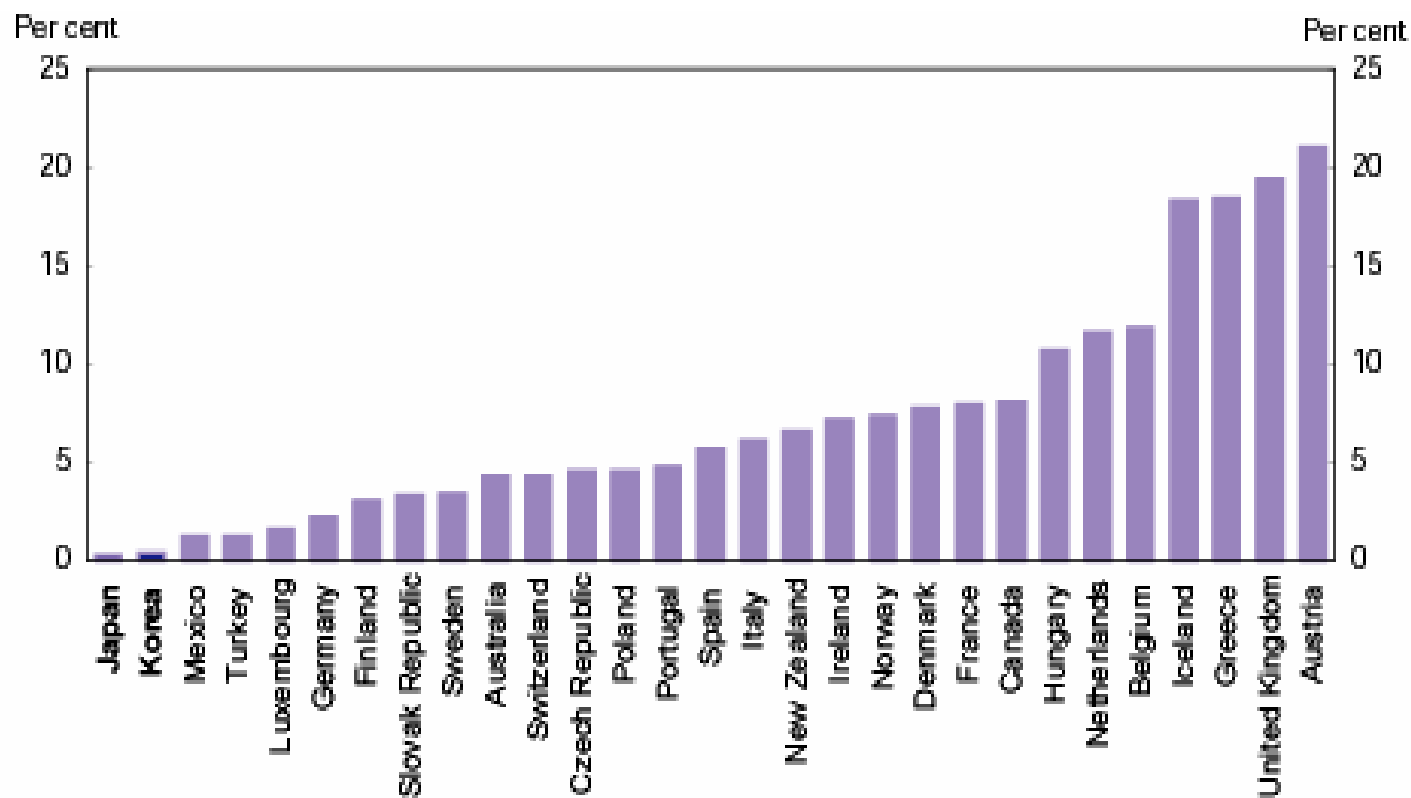
	Funding source for R&D performed					
	Share of total R&D performed	Government	Universities	Business enterprises	Foreign sources	Total
Government <sup>1</sup>	13.8	92.4	0.0	7.5	0.1	100.0
Universities	10.1	73.0	13.0	13.6	0.4	100.0
Business enterprises	76.1	5.4	0.0	94.1	0.5	100.0

1. Includes private non-profit institutes.

2. By which sector performs the R&D

## International linkages in R&D are weak

Per cent of total R&D, 2003



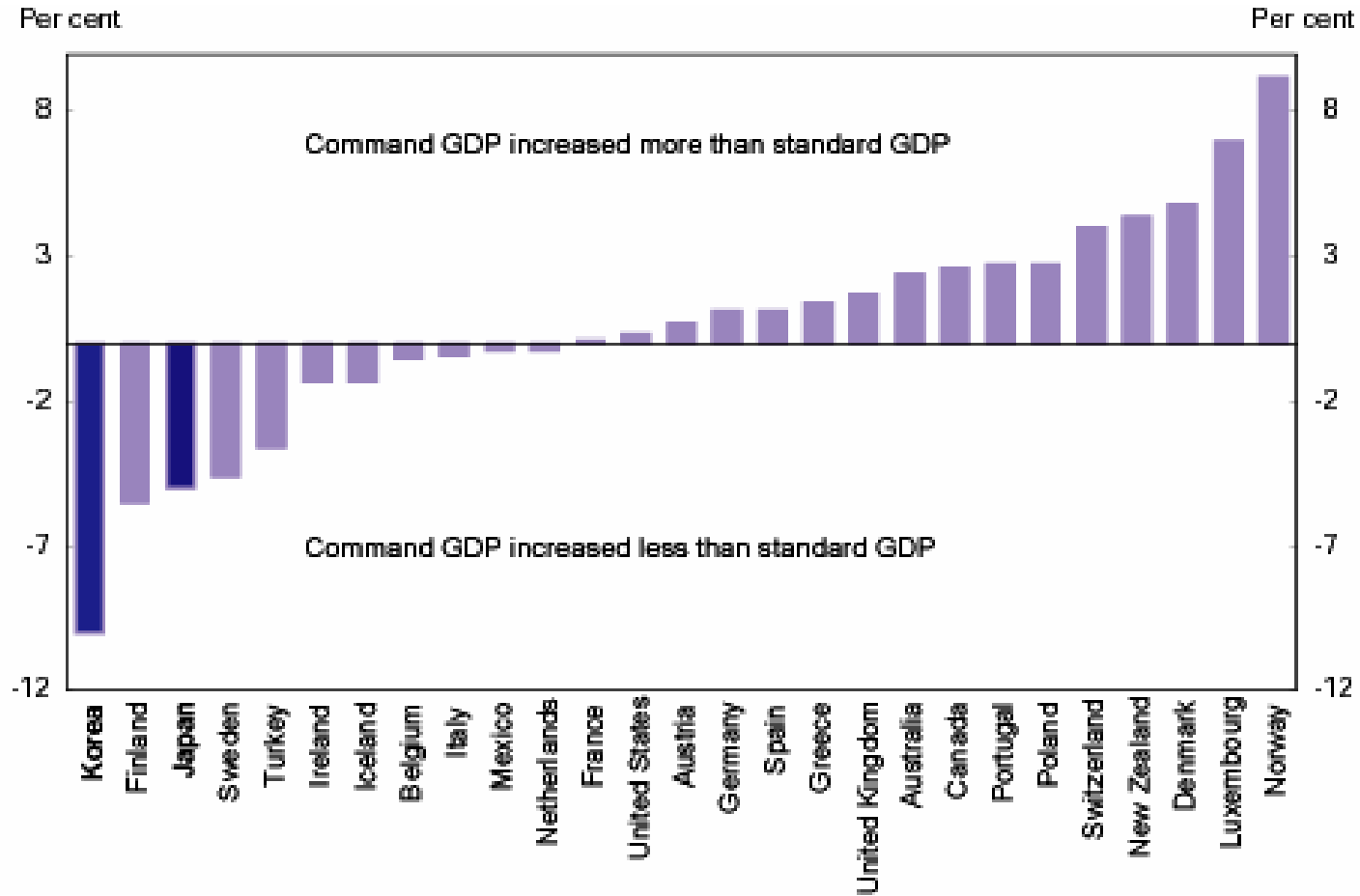
## The ten strategic industries chosen as growth engines

---

Industry	Ministry responsible
Bio-medical products	Ministry of Science and Technology
Next-generation computer displays	Ministry of Commerce, Industry and Energy
Next-generation semiconductors	Ministry of Commerce, Industry and Energy
Next-generation batteries	Ministry of Commerce, Industry and Energy
Future automobiles	Ministry of Commerce, Industry and Energy
Intelligent robots	Ministry of Commerce, Industry and Energy
Digital television and broadcasting	Ministry of Information and Communication
Next-generation mobile communications	Ministry of Information and Communication
Intelligent home networks	Ministry of Information and Communication
Digital content and software solutions	Ministry of Information and Communication

---

## Heavy concentration in ICT has led to terms of trade losses, 1990-2004



# To improve the national innovation system:

- Upgrade the R&D system by:
  - Enhancing links between business, government, academic and foreign research institutes.
  - Increasing the role of universities.
  - Ensuring flexibility in allocating R&D funds and avoid concentration in targeted sectors.
  - Using market-friendly policies to encourage the venture business sector.
- Strengthen competition, particularly in the service sector.

## The service sector is relatively small and has low productivity<sup>1</sup>

	Korea	OECD
<b>A. Employment and value added<sup>2</sup></b>		
Share of total employment, 2001 (%)		
Manufacturing (15-37)	19.7	16.0
Services (50-99)	62.3	71.1
Share of total value added, 2001 (%)		
Manufacturing (15-37)	30.3	17.3
Services (50-99)	53.9	72.0
<b>B. Labour productivity in services<sup>2</sup></b>		
Value added per worker in 2001, manufacturing =100		
Services (50-99)	56.2	93.4
Wholesale & retail trade, hotels and restaurants (50-52, 55)	29.0	67.0
<b>C. Unpaid workers as a share of employment, 2003 (%)<sup>3</sup></b>		
Total economy (01-99)	34.9	16.5
Services (50-99)	34.3	19.2
Wholesale & retail trade, hotels and restaurants (50-52, 55)	50.5	29.8

1. The numbers in parentheses show the ISIC (Rev. 3) codes.
2. OECD total for 24 countries, converted using PPP exchange rates.
3. Latest year available for 26 OECD countries.

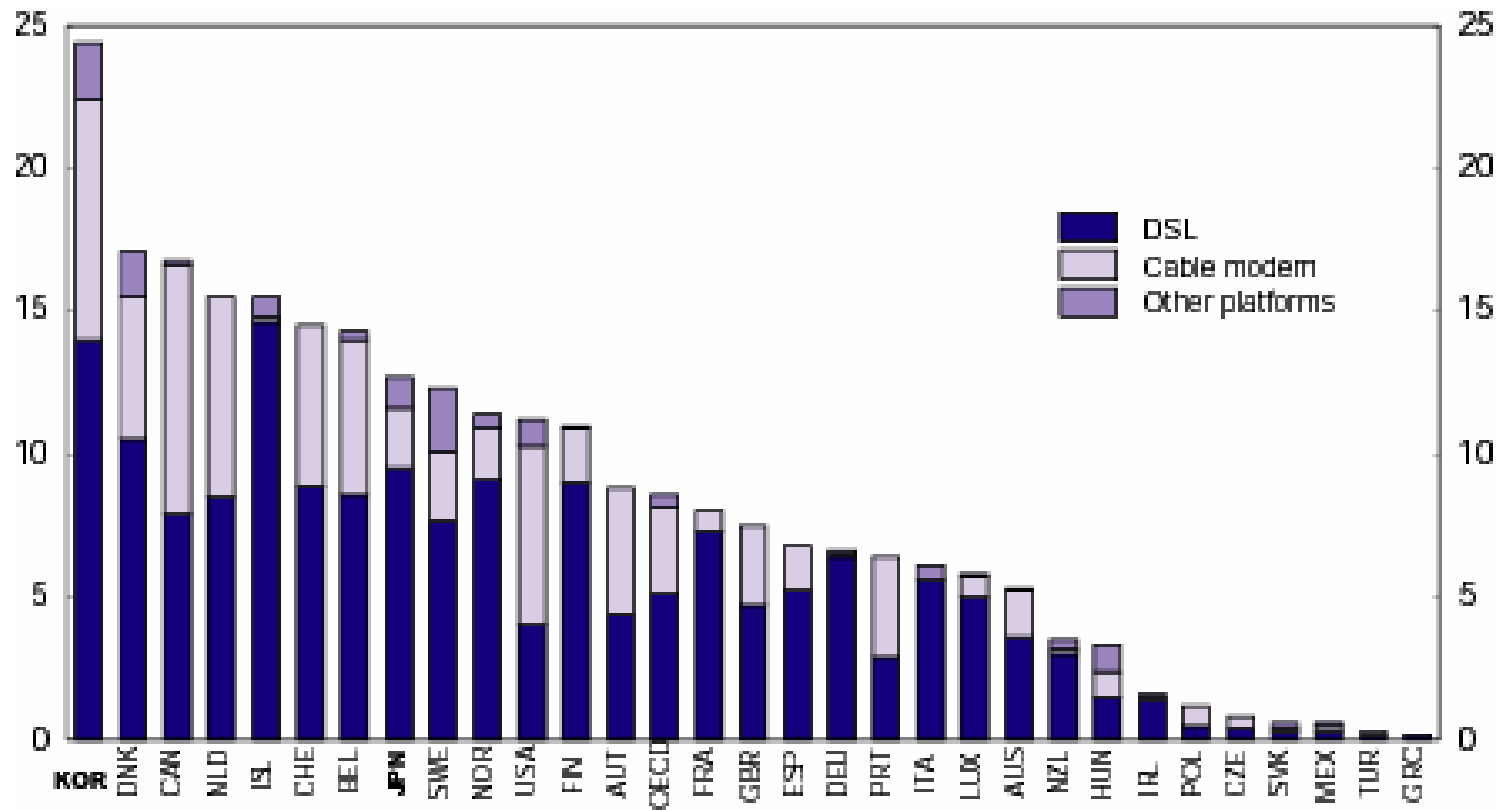
## Time and cost in starting or closing a business

	2004	
	Korea	OECD <sup>1</sup>
<b>Starting a business</b>		
Number of procedures	12	6
Time (days)	22	25
Cost (% of annual income per capita)	17.7	8.0
Minimum capital (% of annual income per capita)	332.0	44.1
<b>Closing a business</b>		
Time (years)	1.5	1.6
Cost (% of estate)	4.0	6.8
Recovery rate (cents on the dollar)	81.1	72.2

1. Includes 22 high-income OECD countries.

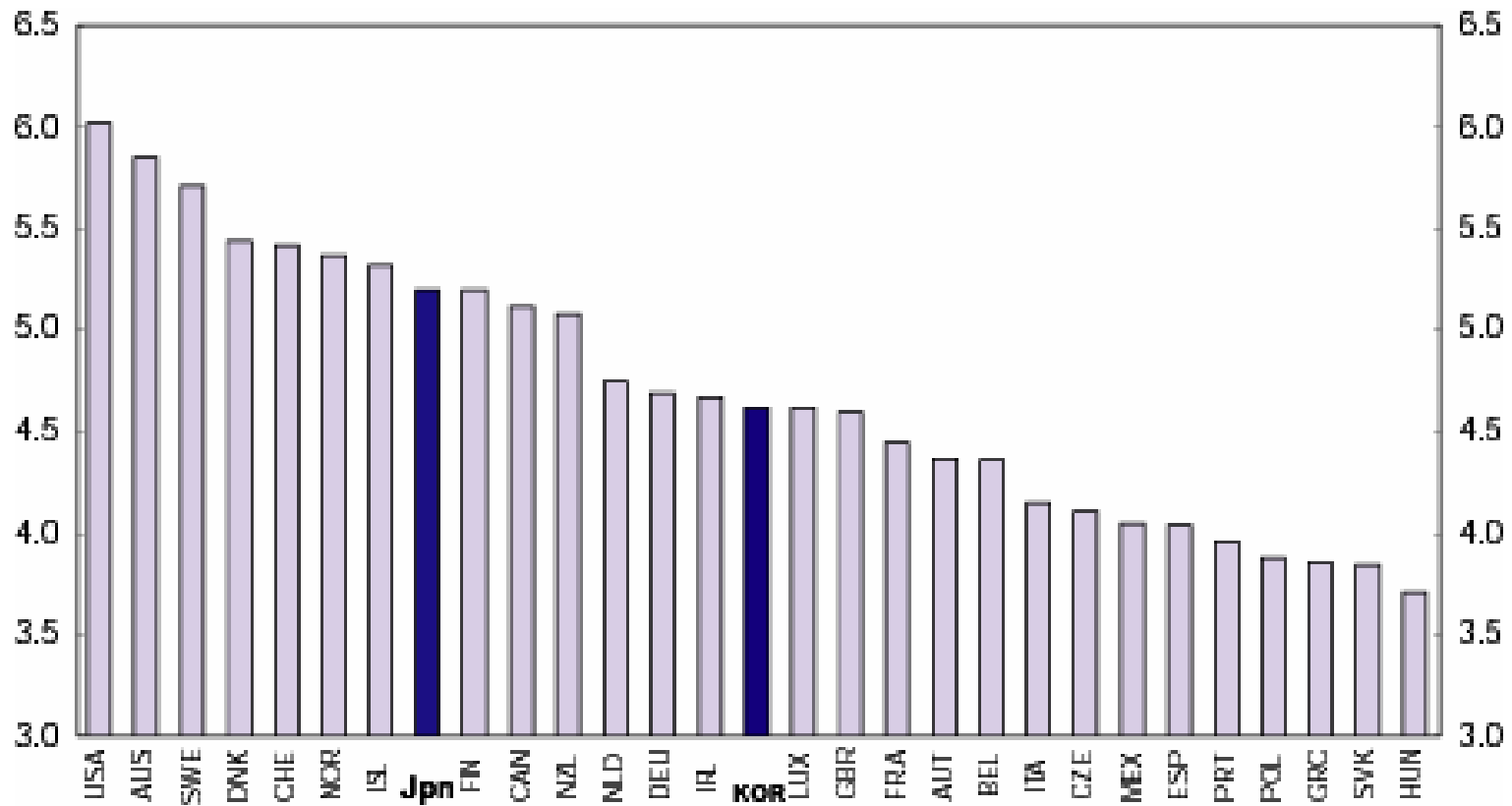
# Despite focus on ICT

Broadband subscribers per 100 inhabitants



# Business usage is not high

Business usage of ICT<sup>1</sup>



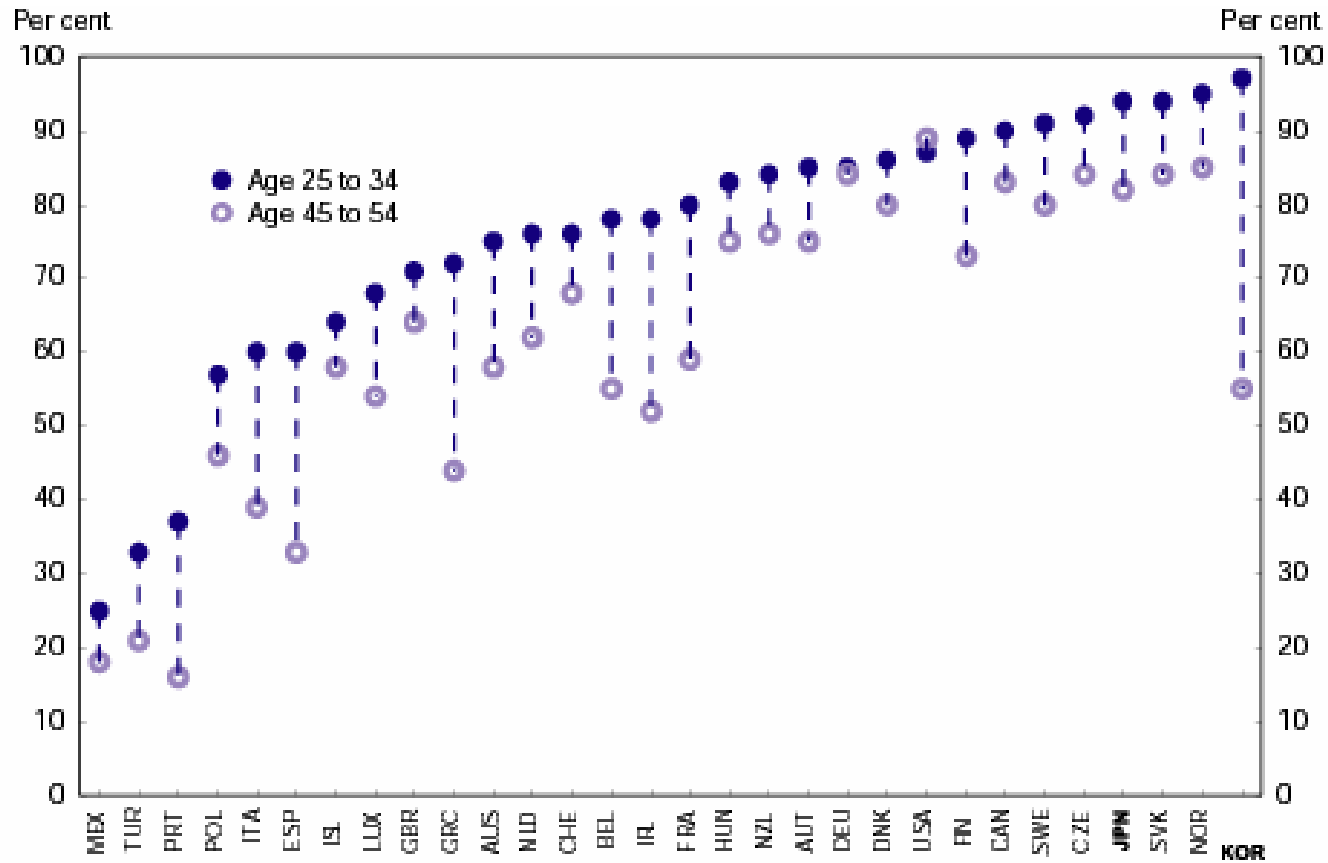
1. Business usage sub-index of the World Economic Forum Networked Readiness index.

# To improve the national innovation system:

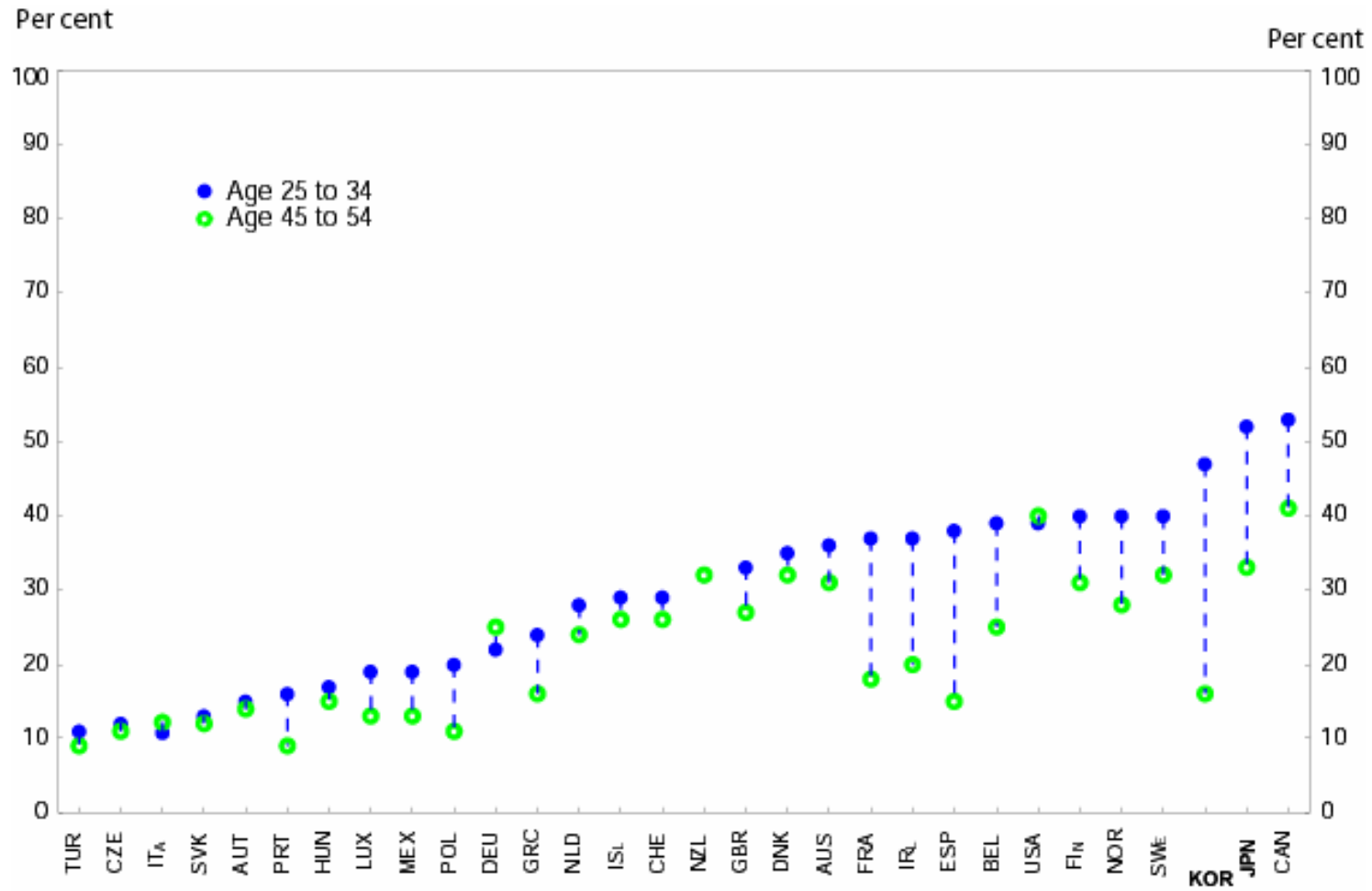
- Upgrade the R&D system by:
  - Enhancing links between business, government, academic and foreign research institutes.
  - Increasing the role of universities.
  - Ensuring flexibility in allocating R&D funds and avoid concentration in targeted sectors.
  - Using market-friendly policies to encourage the venture business sector.
- Strengthen competition, particularly in the service sector.
- Restructure the tertiary education sector to improve quality

# Korea has an exceptionally high level of educational attainment

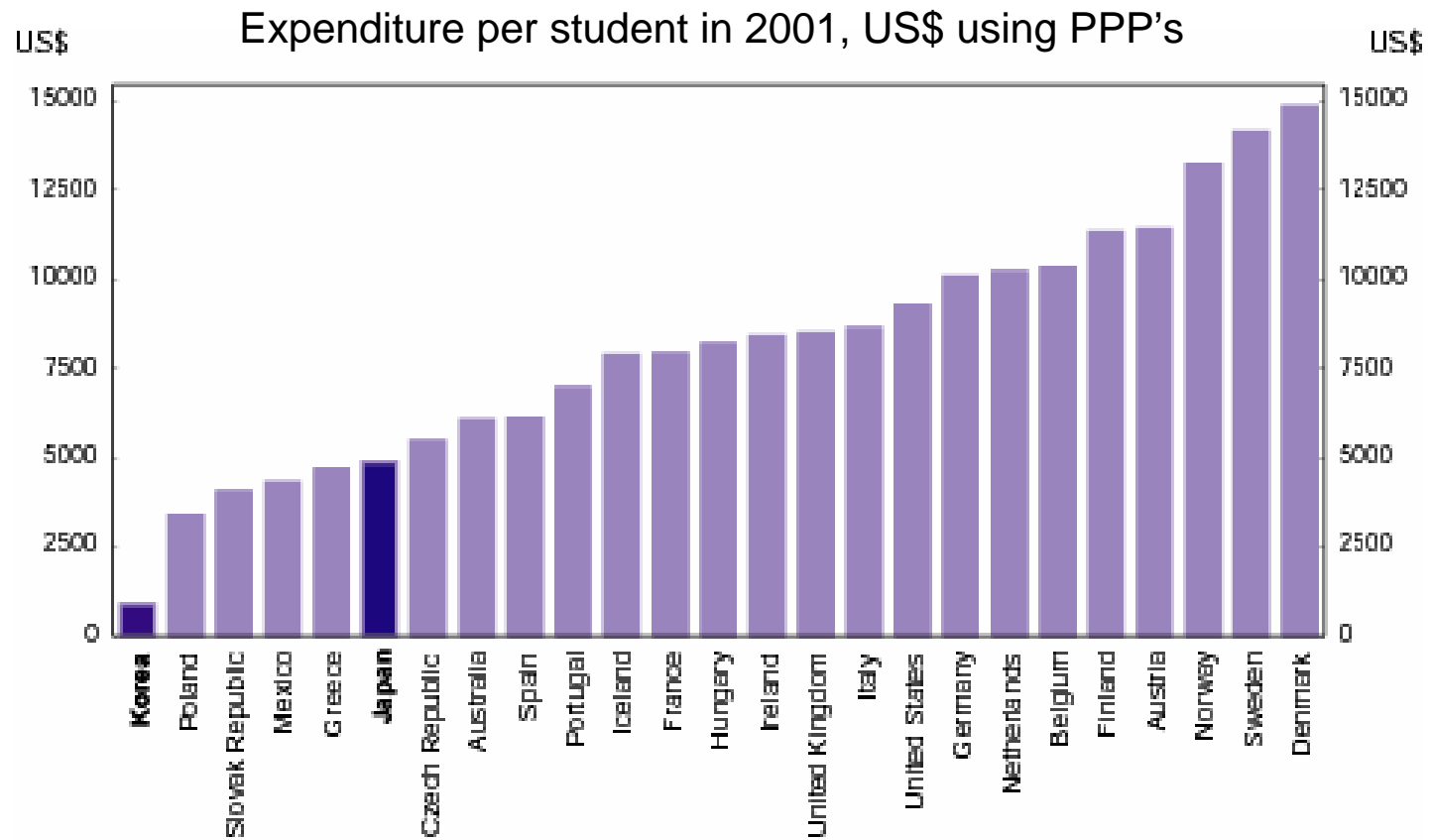
% of age group with at least upper secondary education



## % of age group with tertiary education



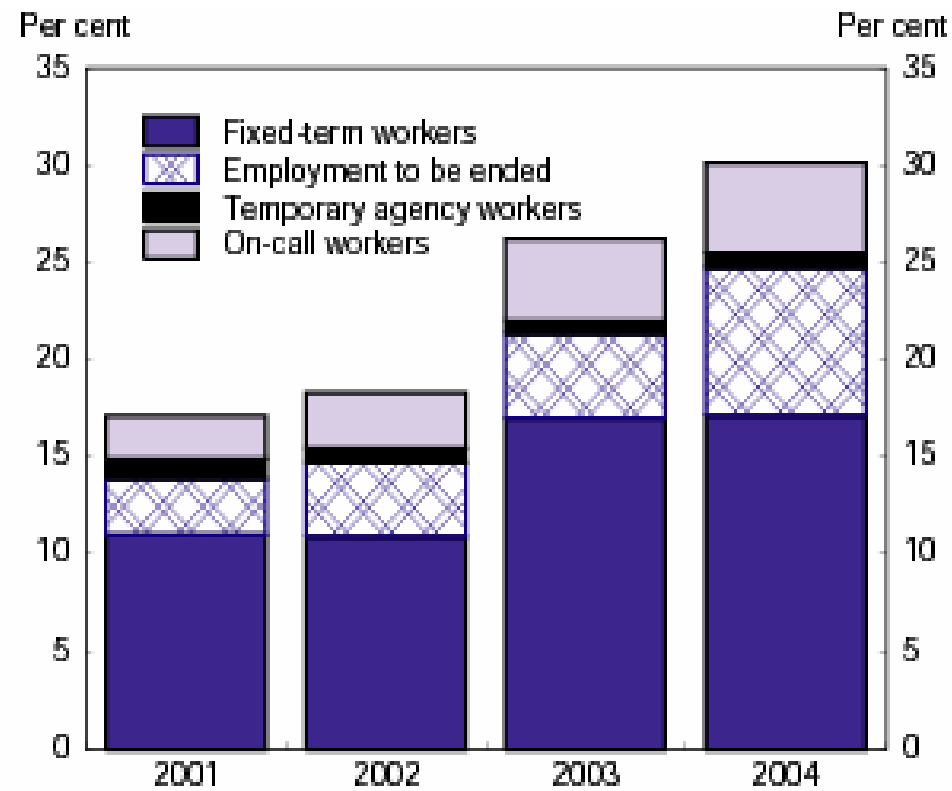
## The level of public spending on universities is extremely low



## **To continue the convergence process and successfully meet the challenges facing Korea**

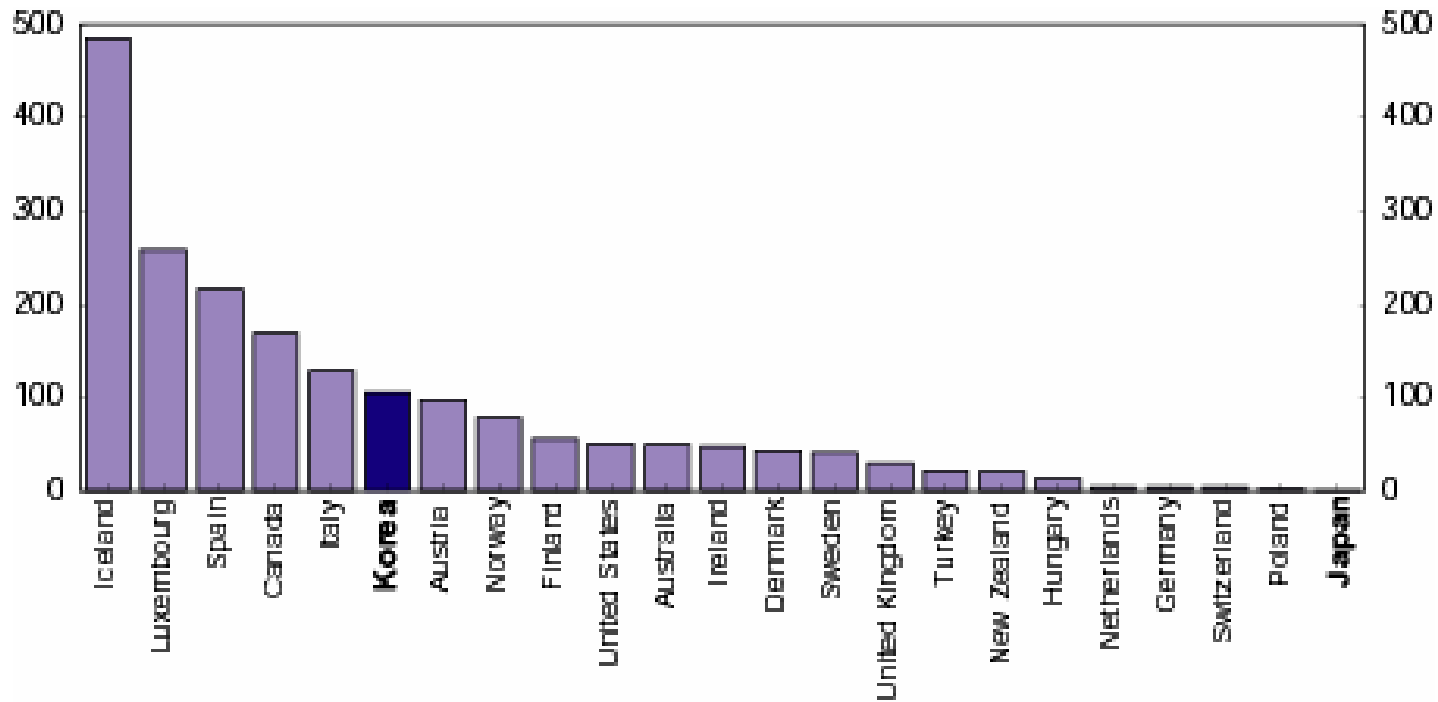
1. Implement sound macroeconomic policies and reform the public pension system.
2. Upgrade the national innovation system to promote faster productivity gains.
- 3. Improve the functioning of the labour market, while boosting participation rates.**
4. Address remaining problems in the corporate and financial sectors.

## There is increasing dualism in Korea's labour market



# Industrial relations remain difficult

Working days lost due to strikes, per 1000 employees  
(Average for 2000 – 2003)



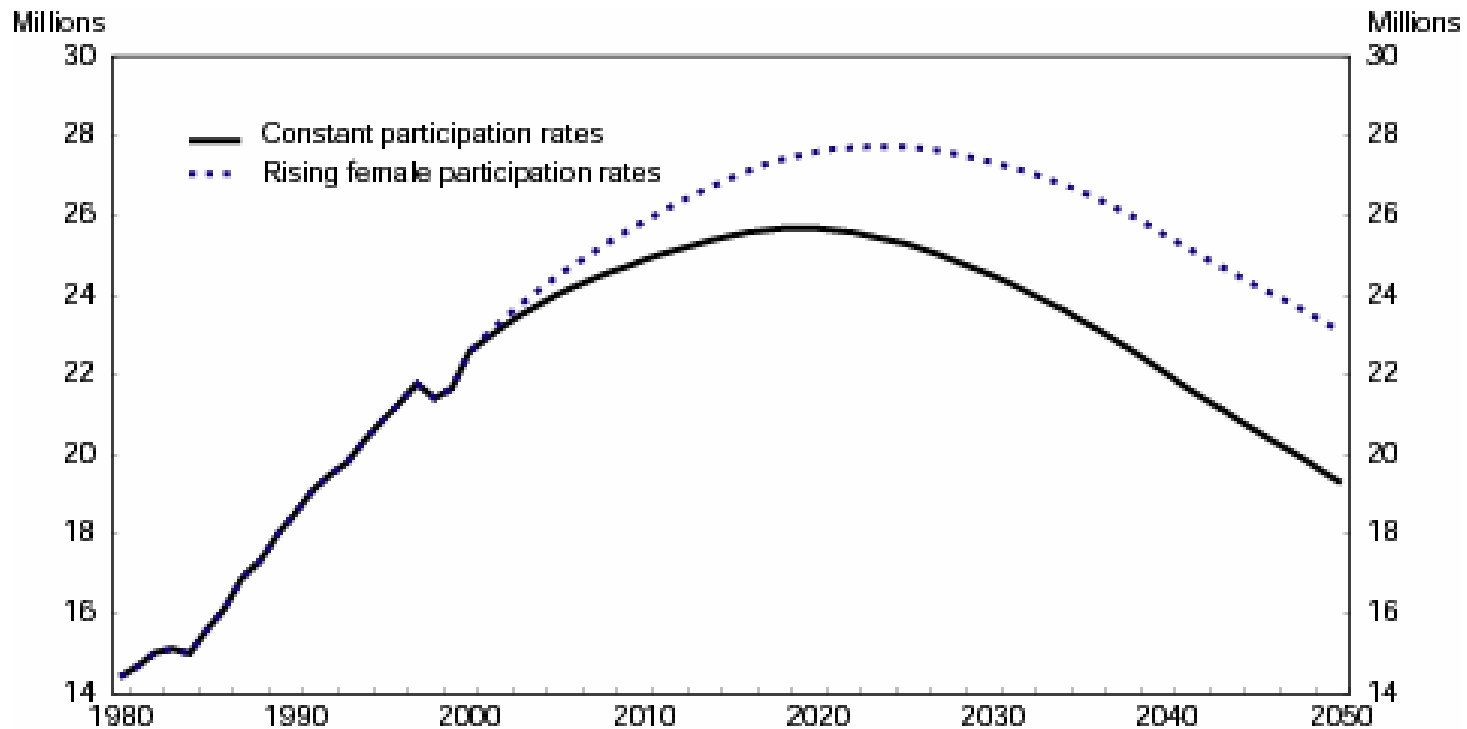
## The coverage of the Employment Insurance System is limited

	1995 Jul	1999 Jul	2000 Dec	2001 Sep	2002 Oct	2003 Nov	2004 Dec
Wage and salary earners	12 824	12 603	13 142	13 265	13 932	14 672	14 584
Eligible for EIS	4 280	8 342	8 700	9 269	9 269	9 651	12 389
Actually insured	4 204	5 876	6747	6 884	7 102	7 180	7 905
Eligible as a per cent of wage and salary earners	33.4	66.2	66.2	69.9	66.5	66.0	84.9
Insured as a per cent of eligible workers	98.2	70.4	77.6	74.3	76.6	74.4	63.8
Insured as a per cent of wage and salary earners	32.8	46.6	51.3	51.9	51.0	49.1	54.2
Proportion of unemployed receiving benefits <sup>1</sup>	...	13.5	...	16.0	...	19.1	23.6

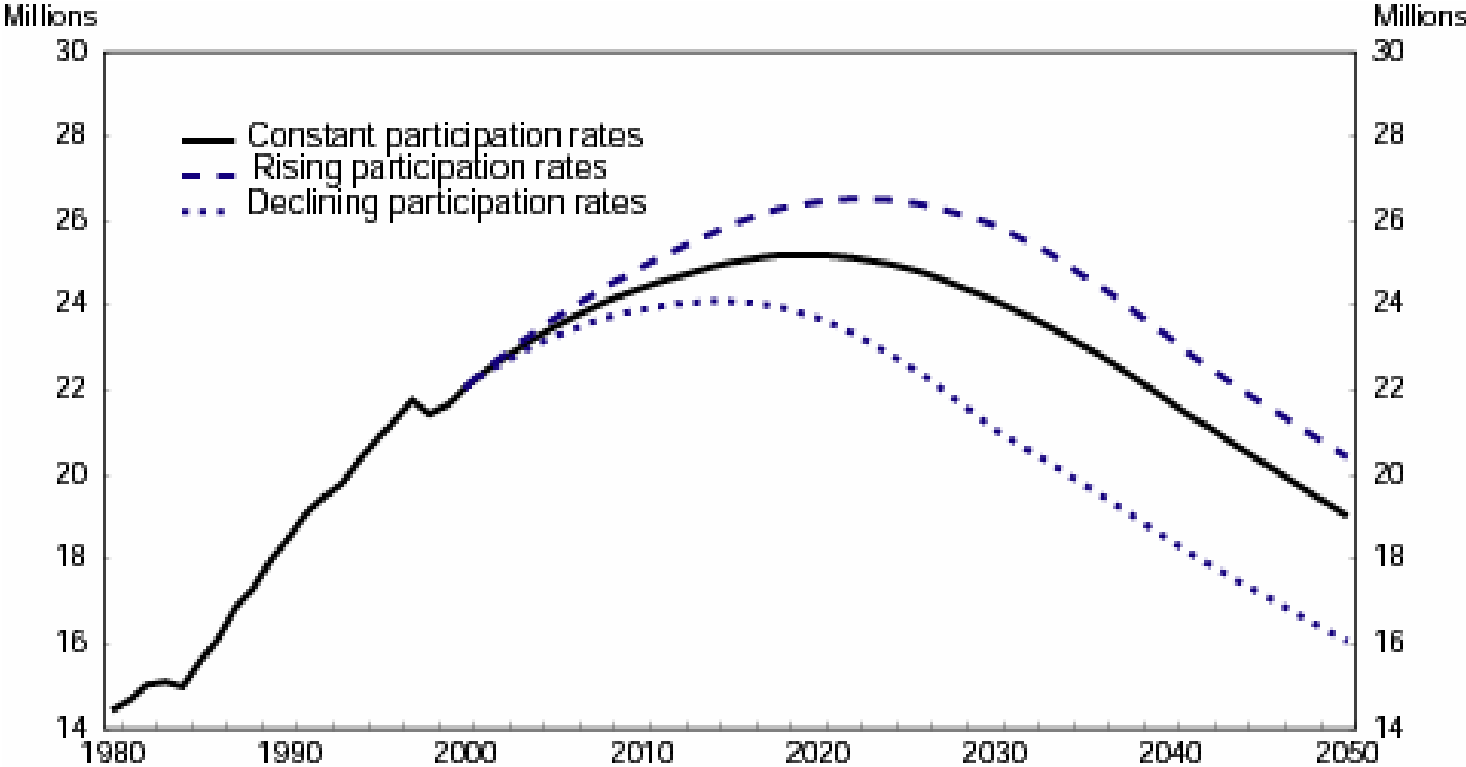
1. Annual averages.

# Demographic factors will tend to decrease the size of the labour force

Labour force with different scenarios for female participation

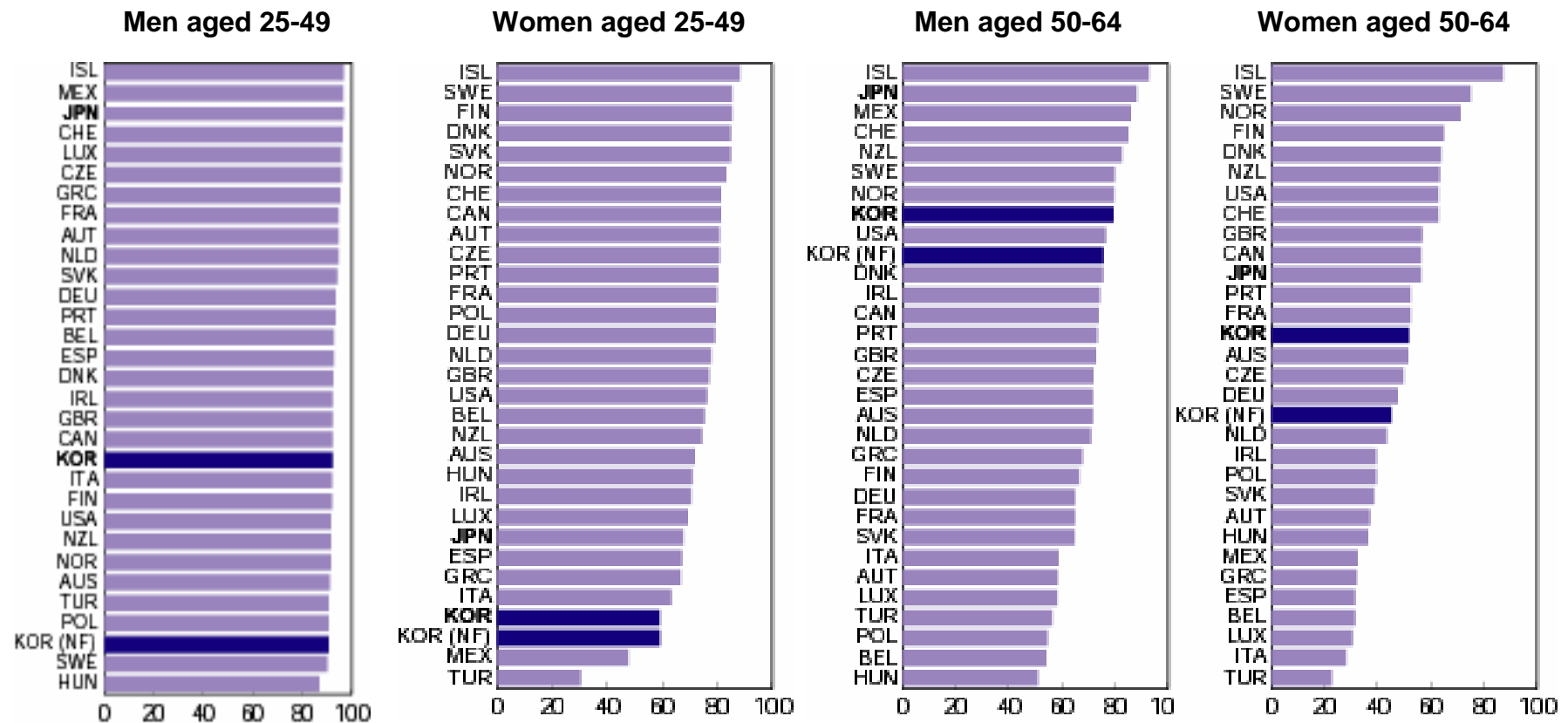


### Labour force with different scenarios for older workers



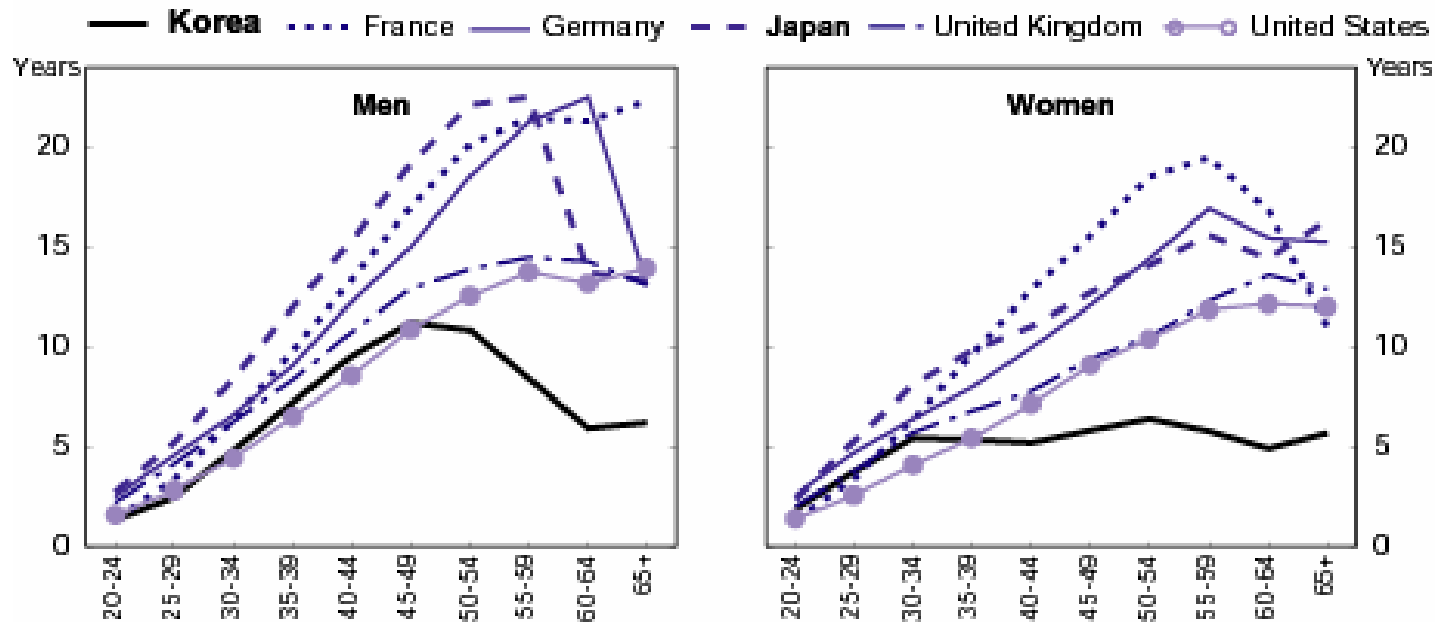
# Labour force participation rates by age and gender

Per cent, 2002



# Workers leave employment at a young age

Average job tenure by age and gender



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4. **Address remaining problems in the corporate and financial sectors.**

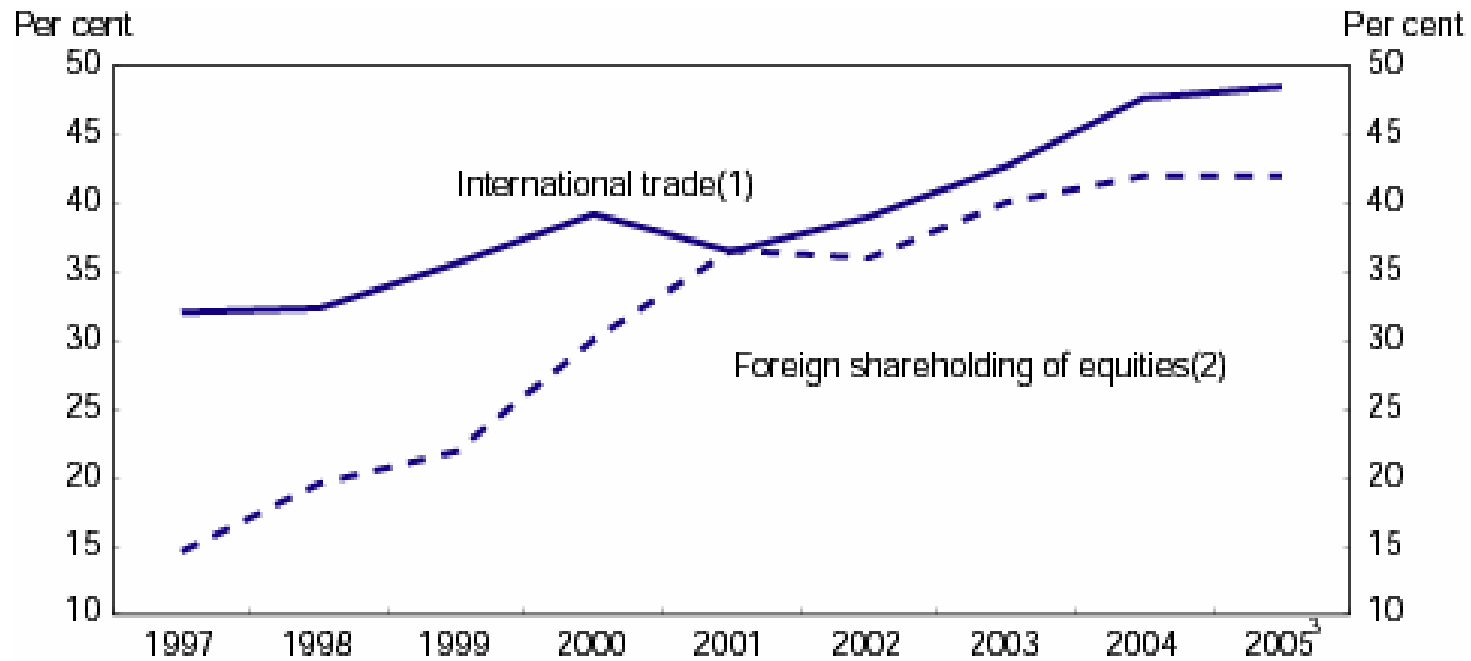
## There has been a marked improvement in the health of the corporate sector

### The manufacturing sector

	1997	1999	2000	2001	2002	2003	2004
<b>Financial indicators</b>							
Debt-equity ratio	396.3	214.7	210.6	182.2	135.4	123.4	104.2
Total borrowings-assets ratio	54.2	42.8	41.2	39.8	31.7	28.3	24.0
Current ratio	91.8	92.0	83.2	97.9	106.1	109.8	117.0
Asset turnover ratio	0.90	0.82	0.96	0.98	1.08	1.10	1.20
<b>Profitability indicators</b>							
Operating profit-sales ratio	8.3	6.6	7.4	5.5	6.7	6.9	7.6
Labour cost-sales ratio	11.4	9.8	9.7	10.0	10.1	10.3	9.7
Labour cost-total operating cost ratio	13.6	11.5	11.5	11.7	11.9	11.8	11.3
Ordinary profit-sales ratio	-0.3	1.7	1.3	0.4	4.7	4.7	7.8
Financial expense-sales ratio	6.4	6.9	4.7	4.2	2.6	1.9	1.3
Average interest rate	10.6	11.5	10.5	9.4	7.7	6.8	5.9
Interest coverage ratio <sup>1</sup>	129.1	96.1	157.2	132.6	260.3	367.1	575.8

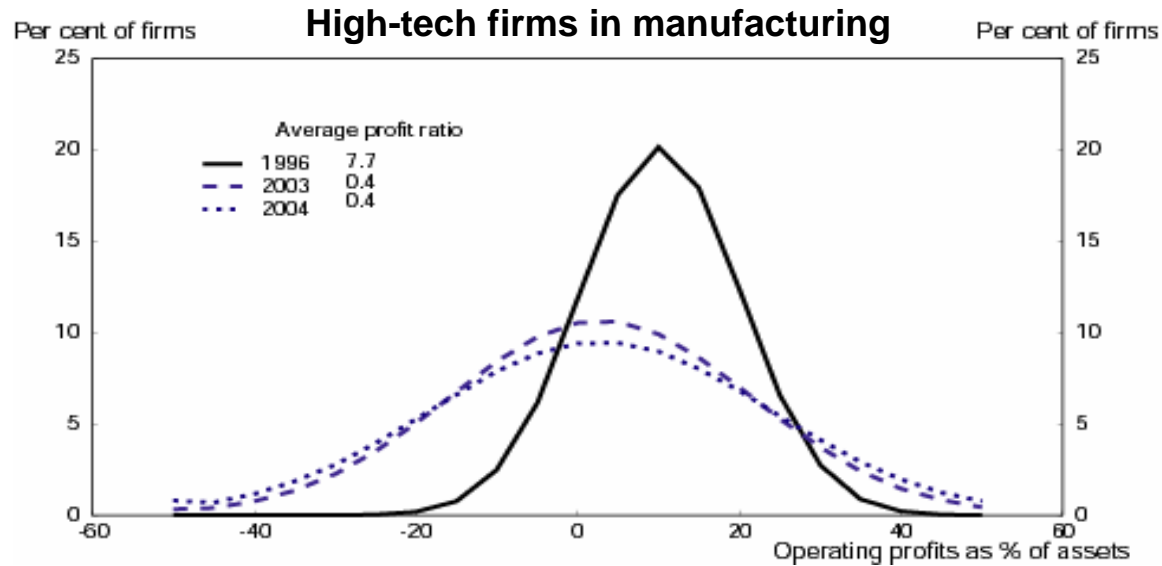
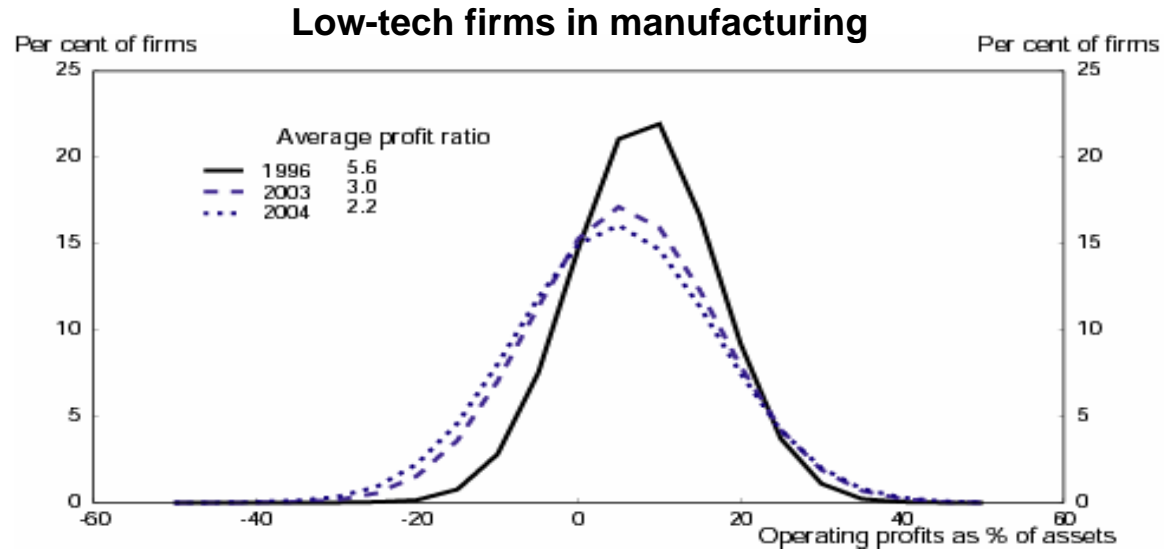
1. The ratio of operating profits to interest expenses.

## The Korean economy has become increasingly internationalised since the crisis



1. Exports and imports of goods and services in volume terms on a national accounts basis, divided by 2, as a share of GDP.
2. Foreign share of market capitalisation, including KOSDAQ.

# There has been a deterioration in the performance of SMEs



# The banking sector is healthy

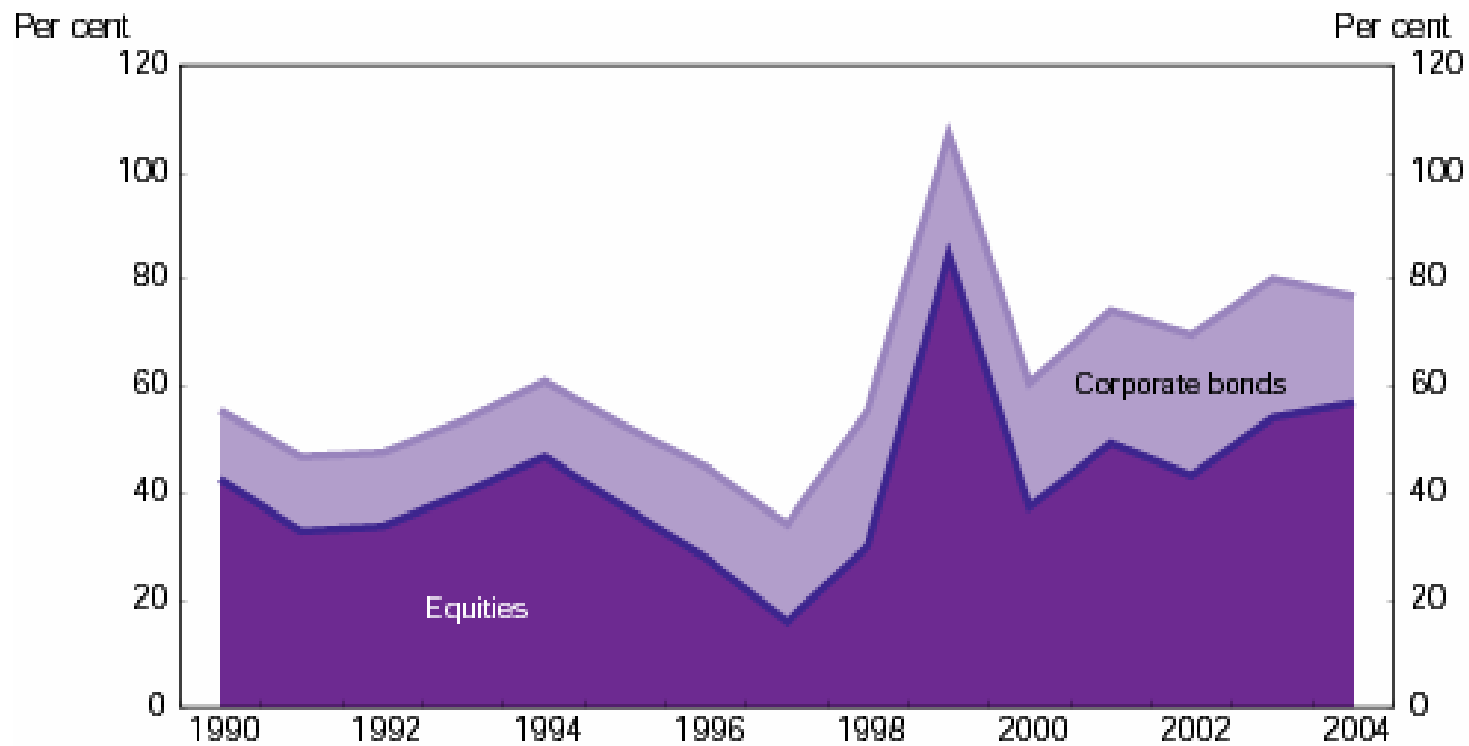
Nation-wide banks, in trillion won

	1998	2001	2002	2003	2004
Before-tax profits					
Net profits	-3.2	9.0	9.0	10.7	12.8
Net profits minus loan loss provisions	-10.1	3.6	3.7	0.3	6.0
After-tax profits	-10.1	3.4	2.9	0.2	5.9
Return on equity (per cent)	-48.63	16.30	10.95	0.87	18.23
Return on assets (per cent)	-2.99	0.79	0.56	0.04	0.89
Total loans (A)	263.9	353.2	432.2	463.9	473.0
Substandard loans or below <sup>1</sup> (B)	19.0	11.7	10.6	13.1	9.4
Ratio to total loans (%) (B/A)	7.2	3.3	2.4	2.8	2.0
Loan loss reserves (C)	12.1	8.8	8.8	10.7	9.1
Reserves to substandard loans or below <sup>1</sup> (%) (C/B)	63.8	75.3	83.5	82.1	96.6
Capital adequacy ratio (BIS ratio)	8.22	10.81	10.46	10.34	11.31
Number of branches	4 164	4 052	4 304	4 345	4 333

1. Includes loans classified as substandard, doubtful and estimated loss.

# But the capital market is still underdeveloped

As per cent of GDP



## The delinquent borrower problem remains a concern

Credit card use in trillion won

	1998	1999	2000	2001	2002	2003	2004
Number issued (in millions)	42.0	39.0	57.9	85.0	104.8	95.2	83.4
Amount of sales using credit cards	30.8	42.5	79.9	175.5	268.0	240.7	229.9
Per cent of private consumption	12.9	15.5	25.6	51.1	70.3	62.0	57.3
Amount of cash loans from credit cards	32.7	54.3	157.3	304.9	412.8	276.6	138.1
Total amount of credit card use	63.6	96.8	237.3	480.4	680.8	517.3	368.0
Delinquent borrowers <sup>1</sup>	n.a.	n.a.	2.1	2.5	2.6	3.7	3.6
Net profit <sup>2</sup>	0.0	-0.3	0.9	2.6	0.2	-10.5	-1.3

1. In December of each year. The registration for delinquency was raised in July 2002, from 50 thousand won for three months to 300 thousand won.
2. Includes only non-bank credit card companies.

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