

# Korea's Industrial Development and Entrepreneurship

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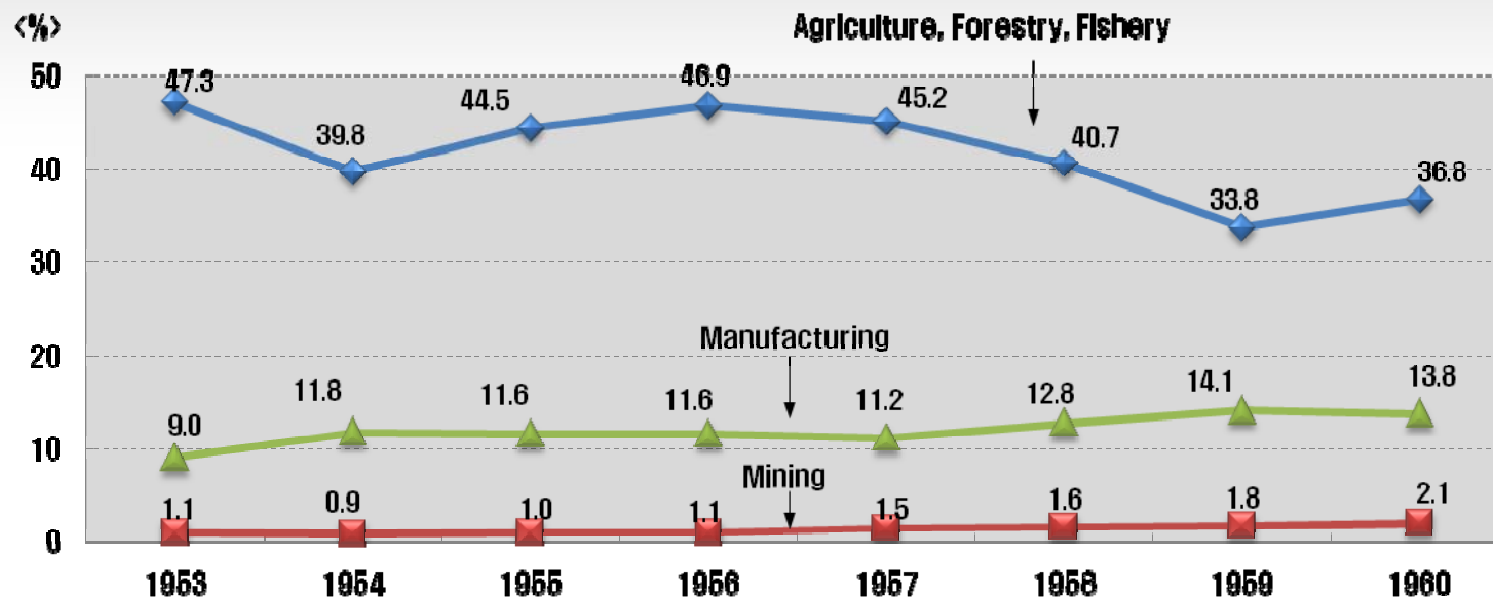
# I . Introduction

- ▶ **What industries have led the Korean economy?**
- ▶ **What factors have affected Korea's industrial development?**
- ▶ **Who have been main actors in the industrial development?**
- ▶ **What has been the role of the government?**
- ▶ **What has been the role of businessmen?**
- ▶ **What has been the relation between the government and businessmen?**

## II. Depending on Traditional Primary Industries: 1950s

- ▶ The Korean economy was dominated by primary industries: agriculture, mining, fishery

Industrial Structure during 1953 ~ 1960(nominal price)



➡ source: National Statistics Office, Korea's Economy in Statistics, 1995.8.

## II. Depending on Traditional Primary Industries: 1950s

- ▶ **Land reform: impulse both on agricultural development and on industrial development**

### ➔ **agricultural development**

- enhancing farmers' productivity and farming desire

### ➔ **industrial development**

- landlords after selling out their land → capital owners for industrial investment
- farmers' investment in education → human capital for industrial development

## II. Depending on Traditional Primary Industries: 1950s

### ▶ Embryos of entrepreneurs

- merchants who were specialized in import → preparing to become exporters who are responsive to the international markets
- participating in government's offerings such as disposal of reverted assets, allocation of US aid goods and procurement of the US military (usually workers who were related to those businesses in the past)

### III. Veritable Industrial Development: 1960s and 1970s

- ▶ **Manufacturing sectors started to lead the economy from 1960s**
  - despite being modest in the GDP, manufacturing occupied almost 90% of total exports in the early 1970s
  - mainly labor intensive light industries were front-runners

#### Top 10 Export Items during 1960s

*unit: million dollars, %*

rank	1961			1971		
	item	value	proportion	item	value	proportion
1	iron ore	5.3	13.0	plywood	124.3	11.6
2	tunsten	5.1	2.6	sweater	97.8	9.2
3	silk	2.7	6.7	wig	74.5	7.0
4	coal	2.4	5.8	cotton tissue	72.0	6.7
5	squid	2.3	5.6	electronic appliances	68.5	6.4
6	fish	1.9	4.5	tuna	55.1	5.2
7	graphite	1.7	4.2	silk	39.3	3.7
8	plywood	1.4	3.3	footwear	37.4	3.5
9	rice	1.4	3.3	kimono parts	34.1	3.2
10	pig wool	1.2	3.0	steel products	33.4	3.1
total export		40.9	100.0		1,067.6	100.0

▶ source: National Statistics Office, *Korea's Economy in Statistics, 1995.8.*

### III. Veritable Industrial Development: 1960s and 1970s

#### ▶ Success factors for developing light industries

- entrepreneurs who were ready to rapidly react on evolution of international markets and government's policies for export promotion
- abundant labor forces that were shed from the agricultural sector with a very low wage level
- financial capital that came from compensation money paid by the Japanese government in 1962 and foreign exchanges gained from participation in the Vietnam War

### III. Veritable Industrial Development: 1960s and 1970s

#### ▶ Export promotion policies of the Korean government

- constructing SOC and assuming basic industrial activities
- systemic supportive measures such as foreign exchanges, taxation, finance and customs
- other supportive measures: "extraordinary cabinet meetings for export promotion"

### III. Veritable Industrial Development: 1960s and 1970s

- ▶ Early success of light industries induced the necessity of developing "heavy and chemical industries" since the former started to import a huge amount of products coming from the latter.
- ▶ The Korean government announced "Presidential Declaration of Heavy & Chemical Industrialization" in 1973 and pursued supportive policies for developing these industries during 1970s.
  - despite scepticism of international organizations and many domestic specialists
  - despite two oil shocks

### III. Veritable Industrial Development: 1960s and 1970s

#### ▶ Outcome of HCI development policies

- export performances: balance between light and heavy in early 1980s
- since then, HCIs have remained Korea's backbone industries

#### Growth of Heavy and Chemical Industries

Unit : %

	Production Structure		Trade Structure		
	HCI	light	HCI	light	primary
1970	37.8	62.2	12.8	69.7	17.5
1973	40.5	59.5	23.7	63.4	12.9
1975	46.4	53.6	25	57.4	17.6
1976	46.8	53.2	29.1	58.8	11.8
1977	48.5	51.5	32.2	53.6	14.2
1978	48.8	51.2	34.6	45.5	10.9
1979	51.2	48.8	38.4	51.4	10.1
1980	52.6	47.4	41.5	49.4	9.1

➔ Source:1) Bank of Korea (1982), National Income Statistics / 2) KITA, Trends of International Trade

### III. Veritable Industrial Development: 1960s and 1970s

#### ▶ Some unexpected side effects

- unbalanced growth between manufacturing sectors and others → development discrepancy between urban and rural areas
- favoring the formation of industrial groups and concentration of economic power in their favor
- resource allocation inefficiency
- over-investment and over-competition among industrial groups

### III. Veritable Industrial Development: 1960s and 1970s

- ▶ **Successful cooperation between the government and entrepreneurs**
  - At the beginning, entrepreneurs were forced to collaborate with the government → in the end, they formed themselves the spirit of "contribution to the country with business"
  - 1960s, responding to the government's export promotion policy, entrepreneurs launched export oriented light industries with their experiences in international markets ↔ the government provided international commercial loans, various incentives
  - 1970s, successful exporters took part in HCI drives also ↔ the government provided policy loans, tax exemptions and industrial location (industrial complexes)

## IV. Industrial Restructuring in the 1980s

- ▶ **In order to cure adverse side effects of HCI drives**
  - **policies of industrial restructuring and industrial rationalization were implemented**
  - **the government changed industrial policy stances from direct targeting towards indirect functional support**
  - **policies to enhance productivity and competitiveness of existing industries were also pursued**

## IV. Industrial Restructuring in the 1980s

- ▶ Favorable development of international economy known as three lows (low oil price, low dollar, low interest rate)
  - redressing the competitive problems of most Korean industries
  - favoring industrial groups' desire to grow → causing overlapping/excessive investments

# V. In Response to New Big Trends: 1990s

## ▶ Two big trends in Korean industries

- Technology development
- Globalization

## V. In Response to New Big Trends: 1990s

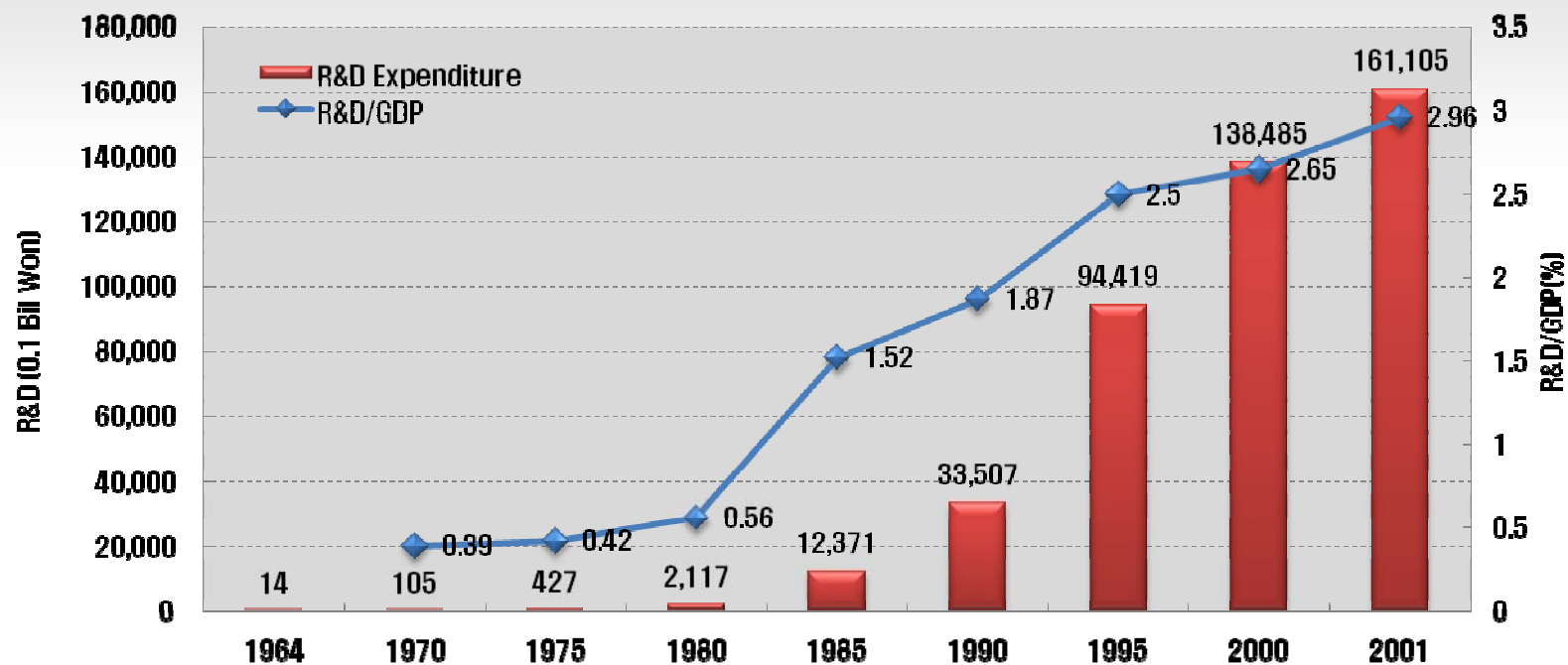
- ▶ **Factors forcing Korean industries to engage in technology drives**
  - reinforced technology protection from advanced countries, added by intensified IPR protection
  - threat from the second tier industrializing countries such as China and ASEAN

# V. In Response to New Big Trends: 1990s

## ▶ Technology drives of Korean industries

- increase of R&D expenditure, especially private sectors' initiatives
- soaring number of private research centers

### R&D Expenditure and Its Share in GDP



➔ Source: Ministry of Science and Technology, Annual Report on R&D in Science and Technology, 2002

# V. In Response to New Big Trends: 1990s

## ▶ Globalization of Korean industries

- surge of overseas investment in addition to strong exporting activities → driving major industries to reach within top 5 in the world market: automobile, shipbuilding, electronics, steel, petrochemical and semiconductors
- causing also adverse effects such as "bi-polarization of industries" and "jobless growth"

# V. In Response to New Big Trends: 1990s

## ▶ Entrepreneurial reactions

- putting their energy in developing their own technological availabilities
- moving their production facilities abroad

## VI. In search of New Growth Engines: 2000s

### ▶ Selected pillars for future growth engines

- new advanced technology industries
- parts/materials (intermediate goods)
- (knowledge-based) service industries
- green growth related industries

## VI. In search of New Growth Engines: 2000s

- ▶ **Many programs for fostering new advanced technology industries**
  - next-generation growth engine businesses
  - basic development plan for bio-technology
  - comprehensive development project for nano-related technology
  - development plan for convergence technology

## VI. In search of New Growth Engines: 2000s

- ▶ To cope with "system competition", Korean industries are forced to reinforce competitiveness of parts and materials.
- ▶ To deal with "tertiarization of the economy", the Korean government focuses on cultivating "knowledge-based service industries".
- ▶ Developing green industries such as green technologies, and renewable energy as well as minimizing environmental loads of the whole economy

## VII. Conclusion

- ▶ **Sucess factors of Korea's industrial development**
  - respecting market mechanism and comparative advantage despite being led by the government
  - appropriate sequencing of focused industries, existing industries playing the role of markets for new industries
  - close cooperative work between the government and entrepreneurs



**Thank You**

