



Growth of Chaebol

in the Process of Korea's Industrialization Drive

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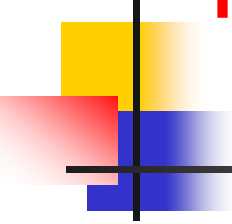


Export & Heavy & Chemical Industry Drive

In the 1960s & 1970s

and

the Performance



Take-Off through Export-Oriented Industrialization in the 1960s: Why Export?

- To overcome **small domestic market**
- To make the best use of **available (human) resources**: labor-intensive industries -> substantial **job creation**
- No choice to secure **foreign exchange**: poorly endowed in natural resources
- For **industrial competitiveness**: specialization, economies of scale, keen competition
- **Import substitution** strategy not feasible
 - Foreign exchange shortage (for import of intermediate & capital goods)
 - Small domestic market



Resource Endowment & Choice of Development Strategy

- Resource-rich economies tend to have slower growth: **‘resource curse’ or ‘paradox of plenty’**
 - Internal & international conflicts
 - Corruption
 - Dutch disease: currency overvaluation discouraging development of other export industries
- Resource-poor economies tend to make more efforts to **develop & keep their exports competitive**
 - Constant drive for **industrial competitiveness**
 - Large investment in **education & human capital**
 - **Currency overvaluation** avoided



Export Incentives and Promotion

- **Export incentives:** largely industry-neutral, result-oriented
 - Currency depreciations
 - Preferential bank loans
 - Tax incentives (corporate income tax, tariff exemption for raw material imports, etc.)
 - Export-import link system; monopoly rights given to exporters developing new markets
- **Institutions for export promotions**
 - KOTRA (Korea Trade Promotion Corporation)
 - Free export zone
 - Administrative push & encouragement (of the President)



'Export First' – a New Faith

- **Monthly Expanded Meeting for Export Promotion**
 - **Attended** by **President** (missing only 5 of 152 meetings), ministers, business associations, key exporters, media, diplomatic mission, etc.
 - Dealing with **bottlenecks** in meeting ambitious export targets
 - **Vision, goals & information shared** among the top leadership, bureaucrats & private sector leaders
- Export **targeting/monitoring** being made at several levels
 - By major commodity group (business associations), export market (diplomatic missions & KOTRA offices), province of exporters, etc.
- **Export Day**: **President awarding prizes** to high-performing exporters for public recognition

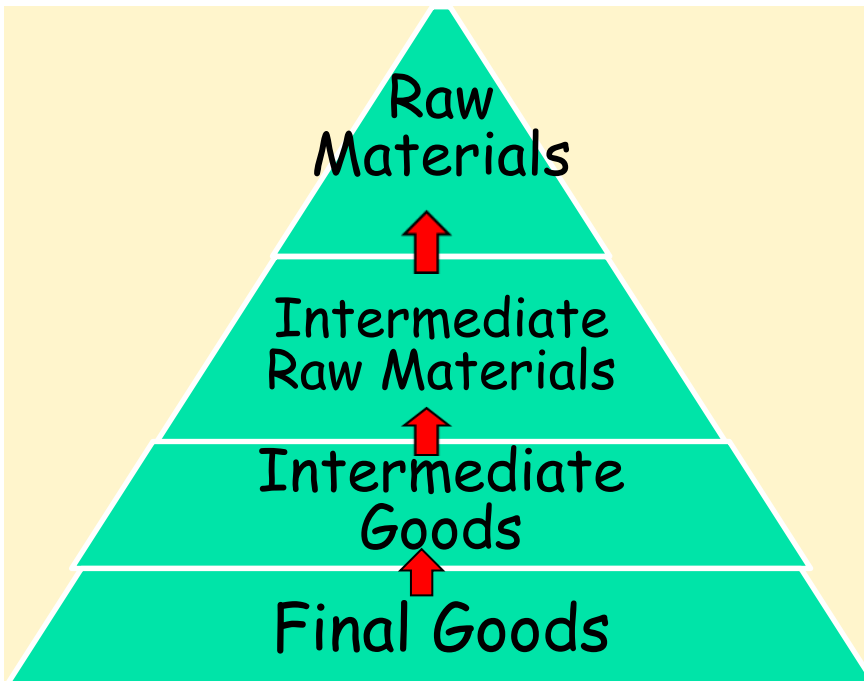
Monthly Expanded Meeting for Export Promotion, and Export Day Ceremony



Pyramid-Type Industrial Development under Government Guidance

Sequence of industry development

1. Assembly of final goods
2. Import substitution (intermediate goods -> intermediate raw materials -> basic raw materials)



Case of synthetic Textile

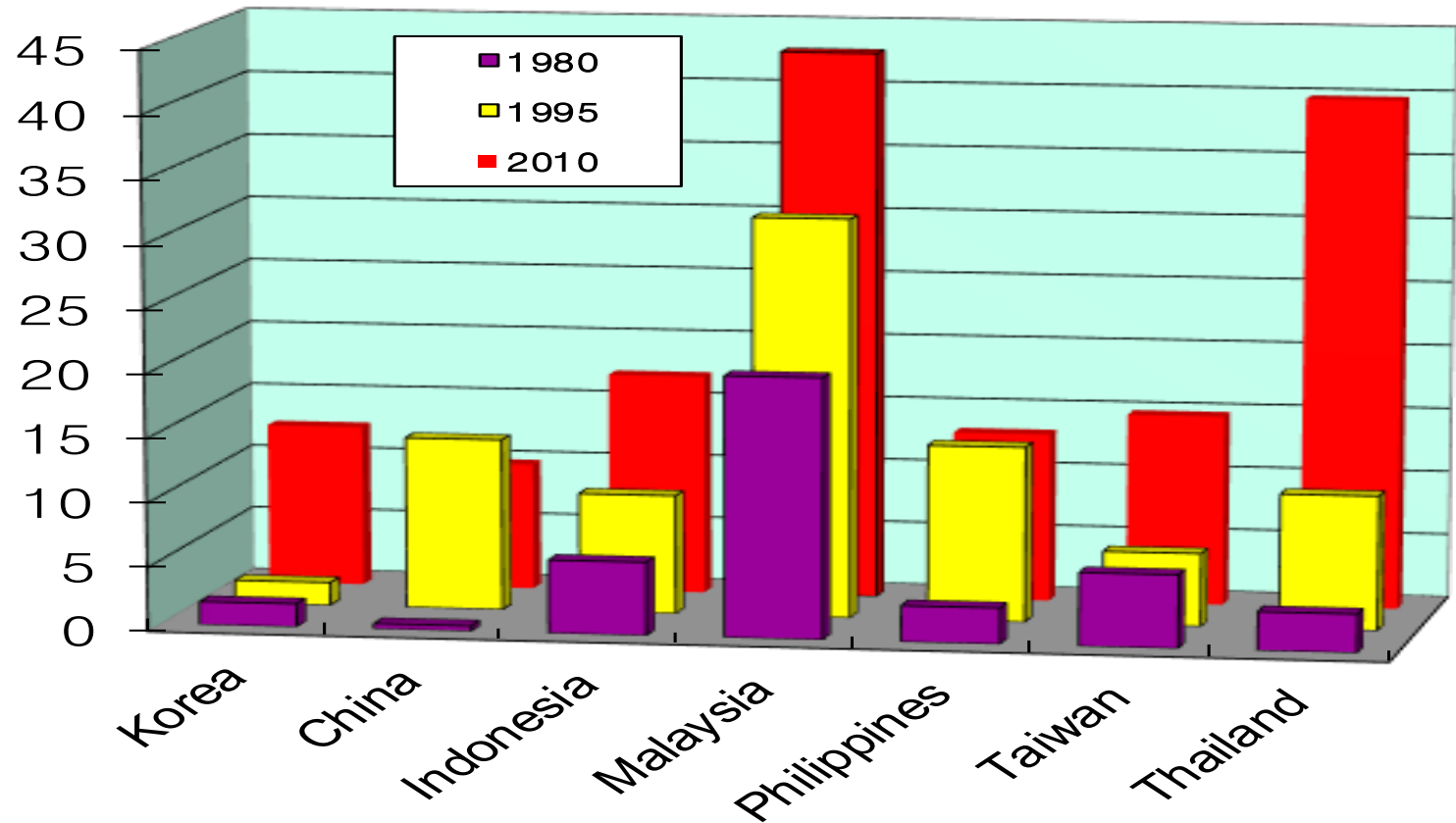


Little Reliance on FDI

FDI liberalization very slow & cautious before the 1997 crisis. Was it really unwise?

- **Economic nationalism**: fear of foreign domination
- **Borrowing is cheaper** than FDI? -> excessive (short-term) borrowing -> foreign exchange crisis
- **Missed chance** of technology transfer & skill training; but **better fostered indigenous technological capabilities?**
 - Initial favorable conditions: education/manpower, entrepreneurs
 - Support from allies under the cold war
 - Gaining leverage in technology transfer

FDI Stock: Cross-Country Comparison (% of GDP)





Heavy & Chemical Industry (HCI) Drive in the 1970s

■ Motivation

- Upgrading export structure for sustained growth: rising protectionist barriers; increasing wages
- Strengthening defense capabilities (Nixon Doctrine)

■ Targeted industries

- Iron & steel, non-ferrous metal, shipbuilding, general machinery, chemicals, & electronics
- Advanced countries willing to phase out labor-intensive or polluting HCIs
- **Chaebols** being the key investors



Key Incentives

- **3 optional tax incentives**

- Tax holidays of 5 years
- Investment tax credit (8% for machinery & equipment)
- 100% special depreciation

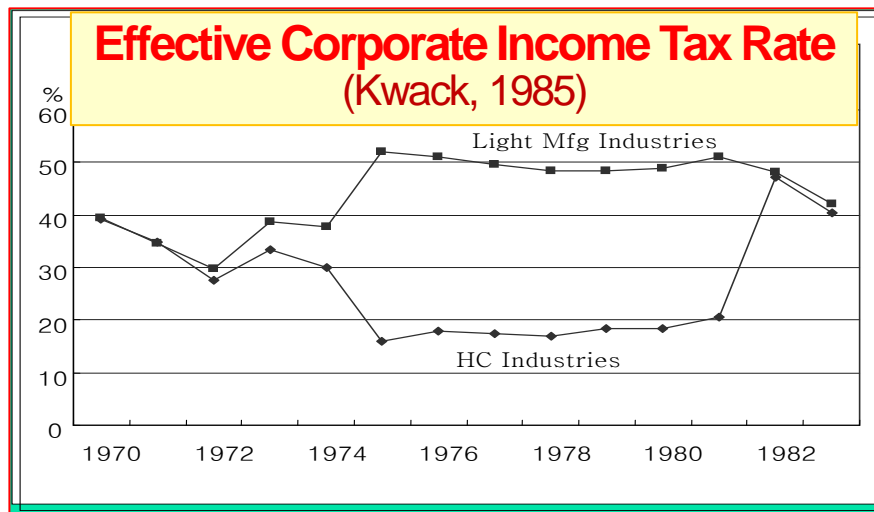
- **Financial supports**

- **National Investment Fund** (1974) contributed by banks, public employee pension funds, etc.
- **Other policy loans** from banks (including **preferential** equipment investment loans for key industries)
- **Foreign loans** and **FDI**

- Construction of **industrial complexes**

Tax, Credit & Trade Support for HCIs

- **Effective corporate tax rate:** less than 20% for HCIs (against almost 50% for other manufacturing)
- **Export & HCI related loans** extended at substantially negative real interest rates
- **Manufacturing import liberalization ratio** declining slightly to 40% (1st half, '70s) particularly for machinery & transportation equipment)



Average Bank Interest Rates (2nd half of the 1970s)

General Bank Loans	17 %
Equipment Investment Loans in Key Industries	13 %
Export-Related Loans	8 %
× Wholesale Price Inflation Rate	16%



Industrial Complexes & Manpower Development

- **Industrial Complex Development Promotion Act (1973)**
 - Industrial Sites & Water Resources Development Corp. established (through reorganization of Korea Water Resources Corporation, 1974)
 - Construction of (southeastern) **coastal industrial complexes**:
 - √ *Chemical* √ *Steel* √ **Electronics** √ *Shipbuilding*
- **Manpower development** on the basis of supply/demand estimates (based on the HCI promotion plan)
 - Upgrading selected **vocational high schools**; fostering **vocational training institutes**
 - Inducing **specialization** of vocational/technical schools



Administrative System for HCI Drive

- **HCI Promotion Committee** approving overall/sectoral development plans
 - **PM** (chair), **Ministers** (EPB, MOF, MCI, **MOC**-construction, **MOE**-education) & **7-15 experts**
- **HCI Planning Office** *headed by Chief Econ. Secretary to President*
 - Investment plans at the plant level and timetables
 - Plant locations and construction
 - Financing, energy, technical manpower, etc.
 - Selection of corporations/entrepreneurs for the investment
- **HCI Promotion Working Committees** on key tasks: *chaired by Deputy Head of the Planning Office* and composed of relevant Director Generals

Consequences of the HCI Drive

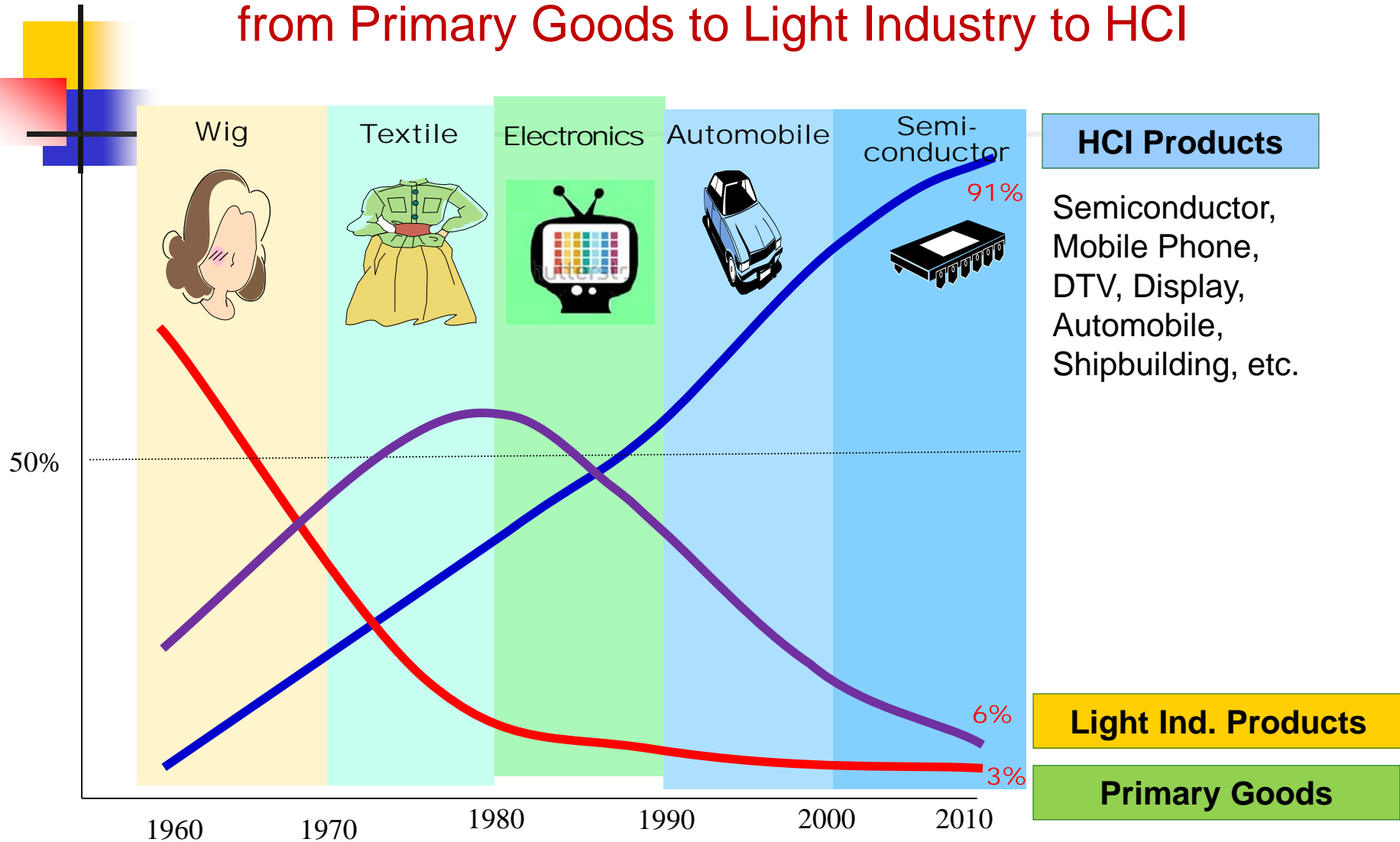
- **Export/industrial structure** upgraded

	1970	1980	1990
Share of HCIs in Manufacturing Value Added (%)	40.6	58.1	71.0
Share of HCIs in Total Exports (%)	18.2	47.6	59.4

- **Macroeconomic complications:** accelerated inflation; weakening of the banking sector
- **Inefficiency:** excessive/duplicative investment
 - Almost 80% of **manufacturing fixed investment** in HCIs in the 2nd half of the 1970s
 - **Capital efficiency** measured as $[VA(k)/K]$ in the 1970s lower for favored HCIs than other industries
- **Concentration of economic power**

Changing Export Structure

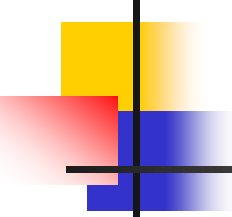
from Primary Goods to Light Industry to HCI





Investment Adjustments during 1979-83

- **Heavy power-generating equipment & heavy construction equipment**
 - Mergers
 - Blanket orders related to nuclear power plants
 - Debt (KDB) equity swap; additional bank loans
- **Motor vehicles:** division of labor by product line (passenger cars vs. small & medium-sized trucks and buses)
- **Vessel diesel engines, electronic exchangers, heavy electrical equipment & copper smelting**
 - Mergers & acquisitions
 - Designation of product lines



Restructuring of Ailing Industries

- **Fertilizer Industry:** excess capacity, weak competitiveness
 - Rationalization (1981): scrapping & adjustment of production facilities
- **Shipping Promotion Act (1967):** financial & tax incentives
 - Recession of world shipping industry after the 2nd oil shock
 - Shipping rationalization program (1984-87)
 - Mergers (# firms 63 → 17); cutting shipping capacity
 - Additional bank credit; debt rescheduling (20-year loans at 3%)
- **Overseas Construction Promotion Law (1975)**
 - Slowdown in Middle East construction market by the mid-1980s
 - Restructuring measures (1977-88)
 - Smaller firms: mostly bankrupt
 - Large firms: mergers, rollover of massive debts



A New Industrial Incentive System

Government-initiated industrialization drive – costly though not a failure -> more selective supports & uniform incentives desired

Industrial Development Law (1986, 1999)

- **Industrial targeting -> uniform incentives**
 - 7 individual industry promotion laws replaced
 - Functional support of industries
- **Emphasis on technology development**
 - Encouraging business-affiliated research centers, R&D investment, standardization of parts & technologies
- **Selective/temporary intervention** in cases of market failures



Selective & Temporary Intervention under Industrial Development Law

- **Infant/promising industries** and **declining industries**
- **Duration of supports**: maximum 3 years in principle
- **Consensus-based**, not unilateral government intervention
 - **Industry's application** for designation of 'rationalization industry'
 - Review by the **Industrial Development Deliberative Council** composed of non-governmental members
 - Discussion by **(ministerial) Deliberation Committee on Industrial Policy**: ensuring consistency & balance in setting the basic direction of industrial development
 - Rationalization program drafted by the Ministry of Trade & Industry

Industries Rationalized under Industrial Development Law

Industries	Rationalization Period	
<i>Promising industries</i>		
Automobiles	1986-89	3 years
Diesel Engines	1986-89	3 years
Heavy Electrical Equipment	1986-89	3 years
Heavy Construction Equipment	1986-88	2 years
<i>Declining Industries</i>		
Textiles	1986-97	11.5 years
Ferro-alloys	1986-89	3 years
Dyeing	1987-88	2 years
Fertilizer	1987-90	3 years
Shoes	1992-95	2.9 years



Rationalization Packages

- Inducing **specialization & barring new entries** (automobiles, diesel engines, heavy electrical & construction equipment, etc.)
- **Capacity reduction** (ferro-alloys)
- **Long-term supply contracts**, etc. to ensure stable demand (ferro-alloys, heavy electrical equipment)
- **Credit** for replacing/upgrading old equipment (textile, dyeing, shoes)
- **Privatization** & managerial innovation (fertilizer)
- Promoting **technology development** & domestic production of parts and components
- ✘ Nearly half of **commercial bank loss replenished** by the BOK (subsidized loans with 3% or 6% interest rates)



Education, and Human Resource & Technology Development

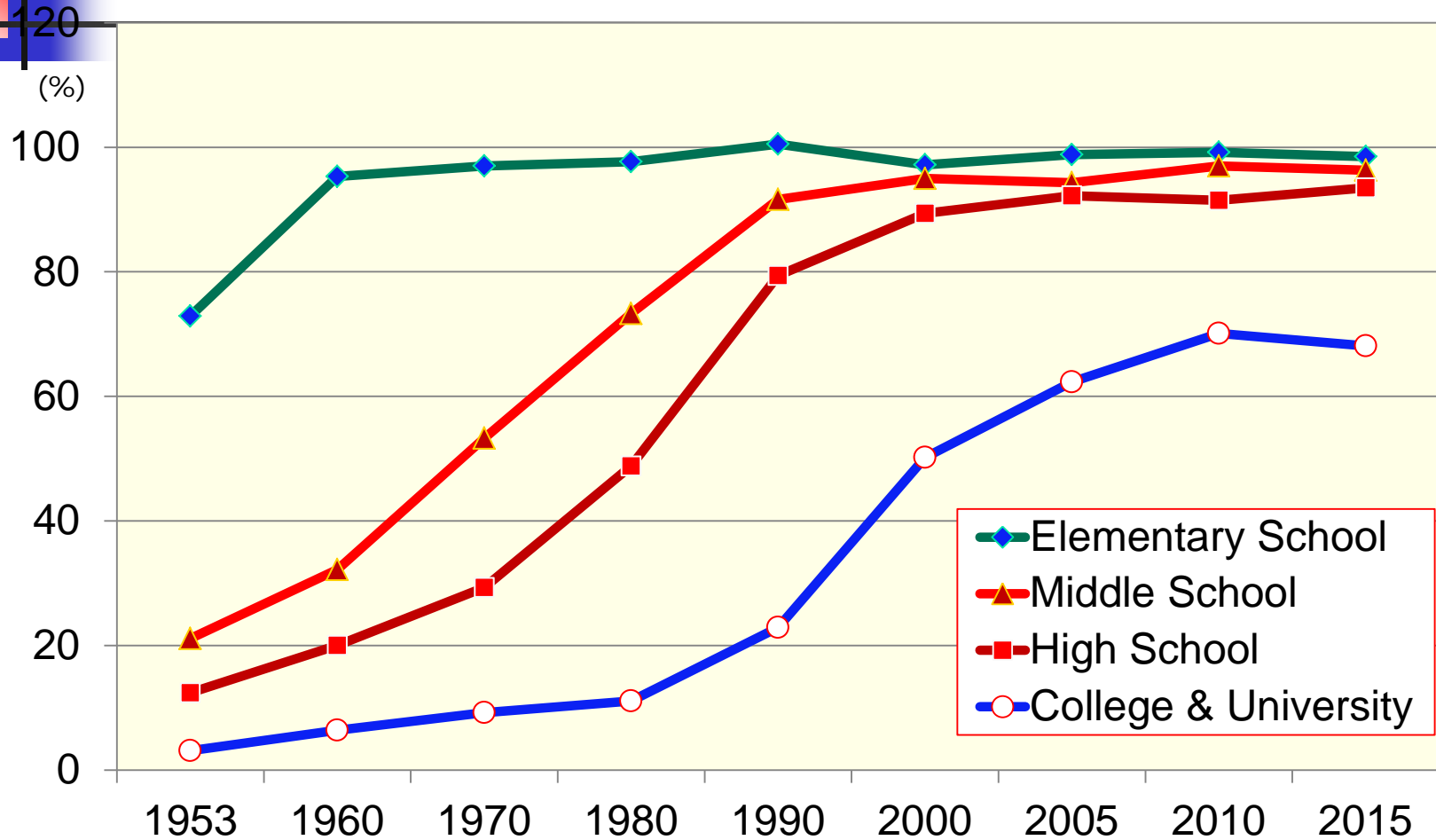
**As an Essential Element of
Successful Industrialization**



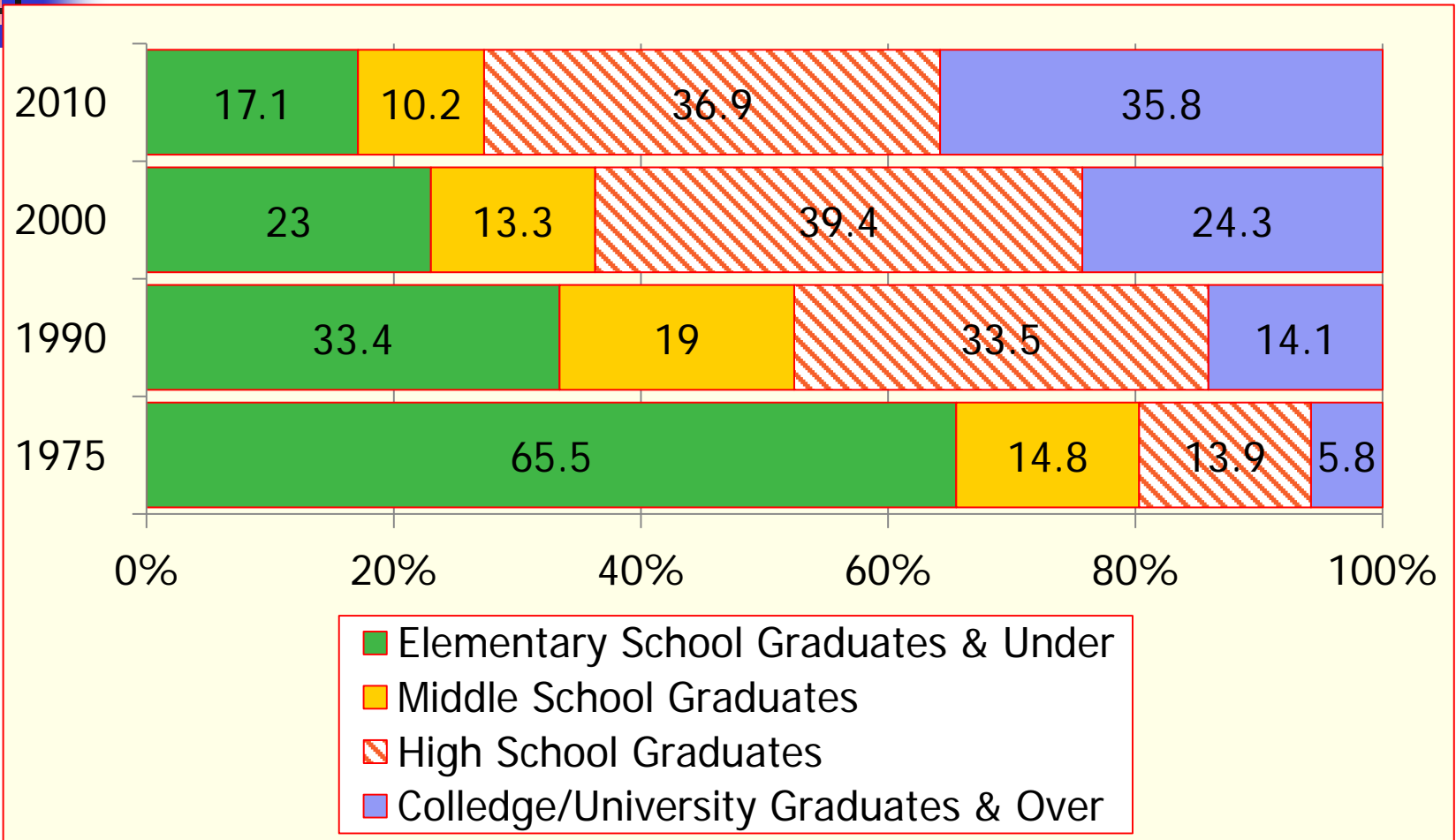
Phased Educational Expansion

- All-out efforts to **reduce adult illiteracy** by the government, religious/social organizations (schools, factories, military, prisons, etc.)
 - **Illiteracy rate: 78%** ('45) -> **42%** ('48) -> **4%** ('58)
 - 6-year plan for completing **compulsory education** (1954-59)
 - Expansion of (inclusive) **secondary education** (1960s & '70s)
 - Large increase in **university enrollment** quota (1980s)
- ✘ Education, a critical means of **individual advancement**
 - **Homogeneous/egalitarian society**: social class destroyed (Japanese colonization, land reform, Korean War)
 - **Demand increased** in the process of industrialization

Trends of Gross School Enrollment Ratio



Composition of Population by Educational Attainment (25 years & over)

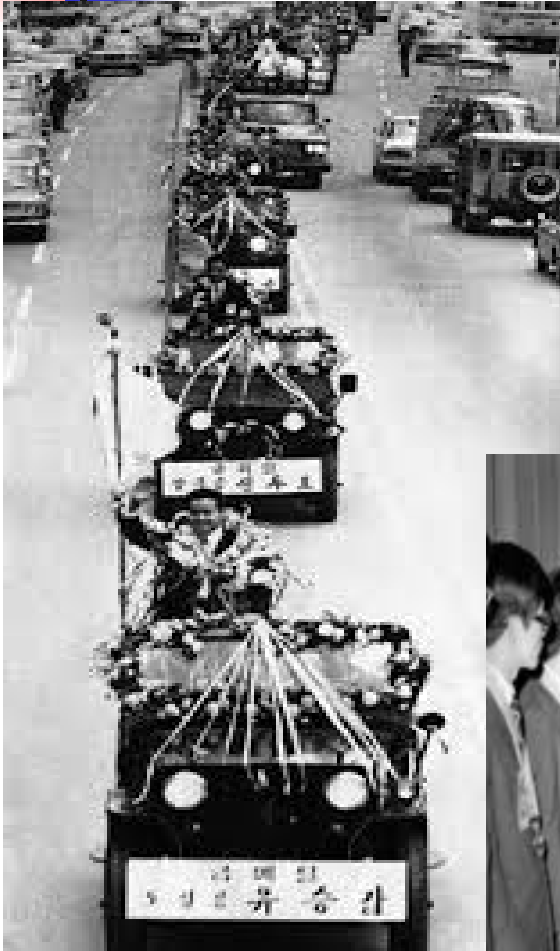




Vocational Education & Training

- **Selected vocational high schools** upgraded with improved curriculum, equipment & quality of teachers
 - Introduction of **National Technical Qualification System** (1974)
 - Winning the *WorldSkills Competition* 19 times out of 22 since 1977
- **Junior technical colleges** growing rapidly in the 1970s & '80s
- **Industry-academia partnership**: specialized vocational high schools & engineering colleges + nearby industrial complexes
- **In-plant skill training** mandatory for large firms or **pay levy** (1977-98)
- **Job Skill Development Program** under the Employment Insurance System (since 1995): employer paying 0.1-0.7% of total wage bill

Korea winning most of the *WorldSkills Competition* since 1977

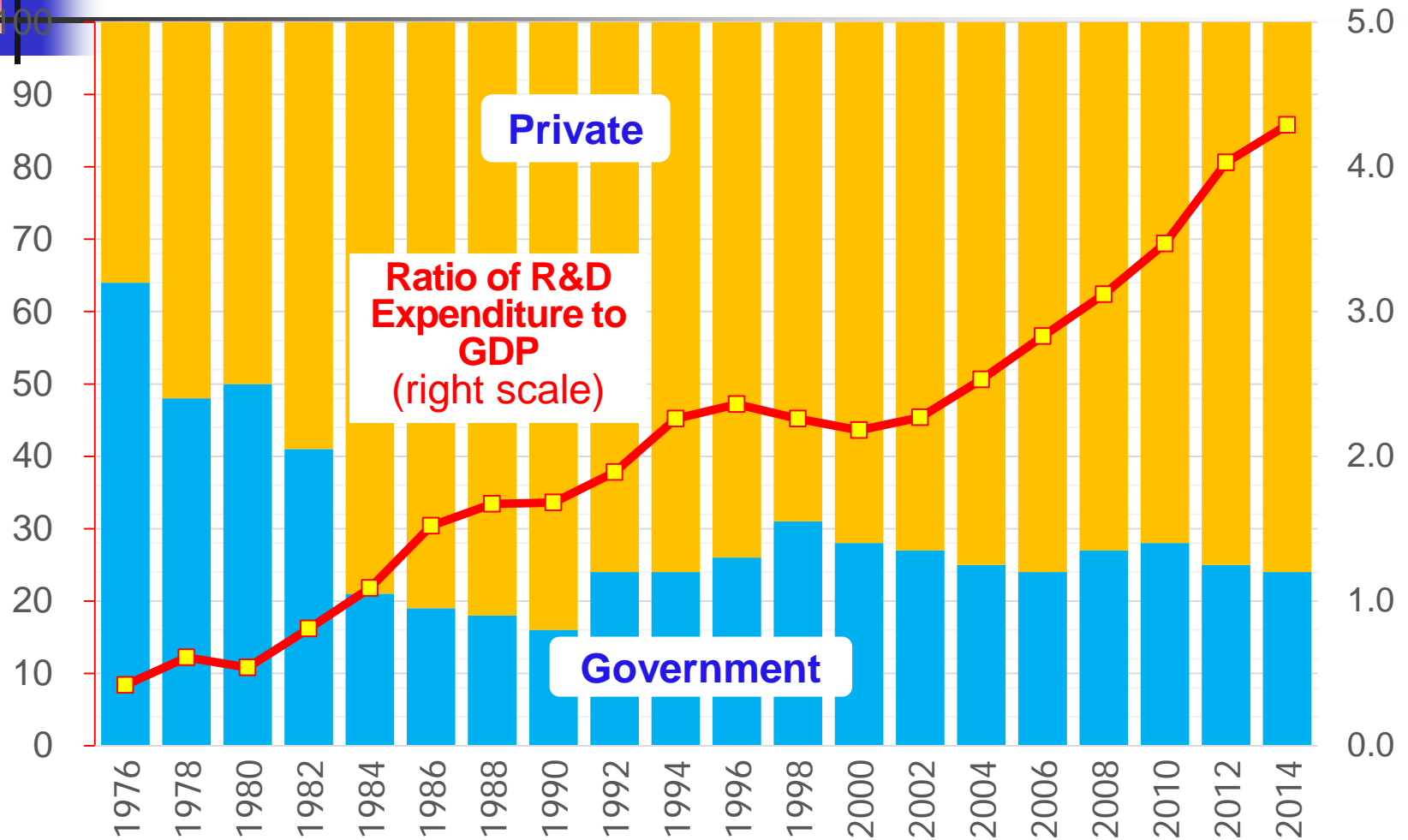




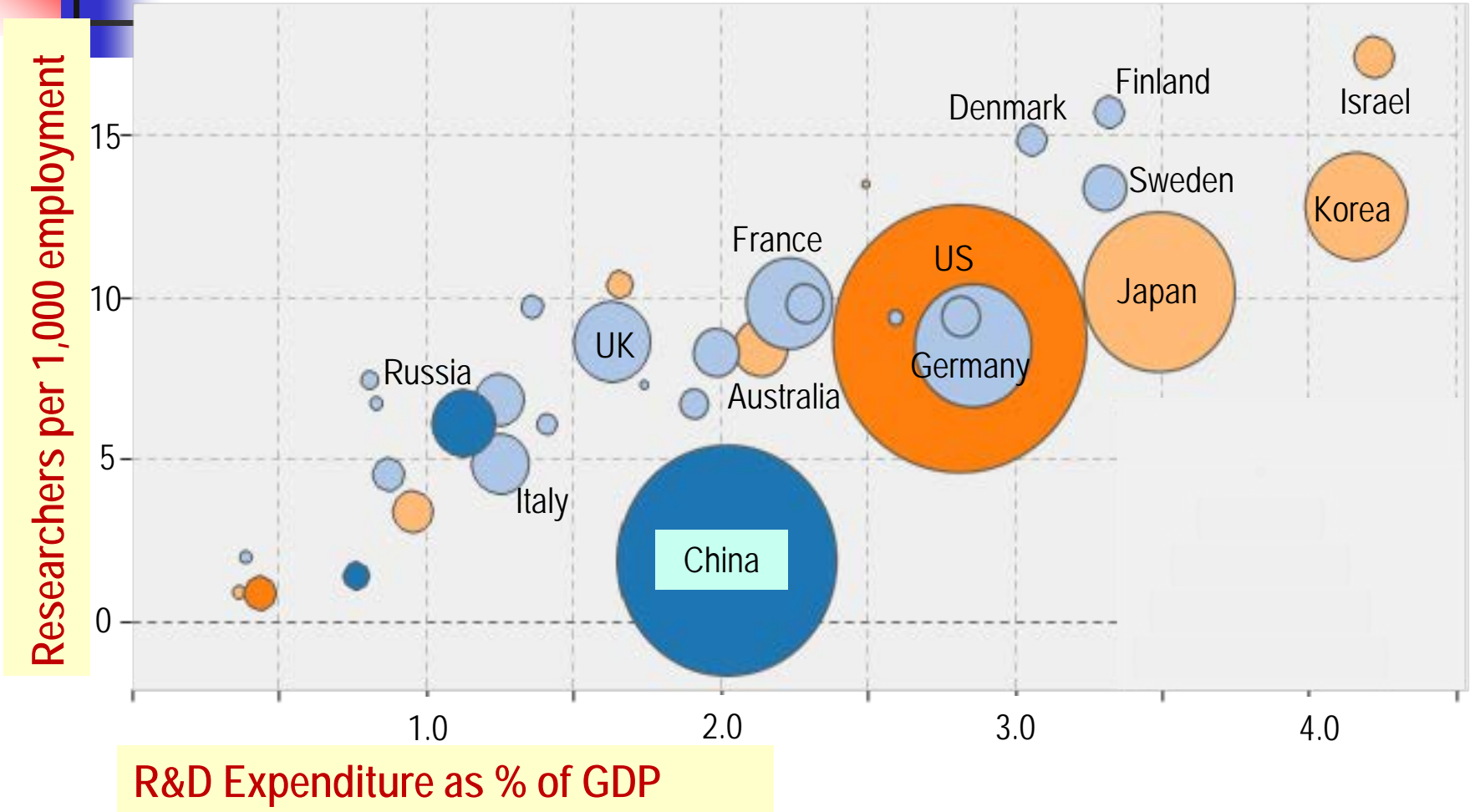
Strengthening Technological Capabilities

- **KIST** (Korea Institute of Science & Technology, 1966) & its spun-off research institutes
- **KAIST** (Korea Advanced Institute of Science & Tech., 1971 under the Ministry of S&T)
- **Study abroad**: brain drain? brain circulation?
- **Technology licensing**
- Government R&D projects mostly in consortium with private firms
- **R&D incentives**: tax, credit, participation in research projects of gov't research institutes
- **Chaebol** (with cross-subsidization among their subsidiaries) boldly undertaking risky technology development projects

R&D Expenditure & Its Composition (%)



Human & Financial Resources Devoted to R&D (2013), OECD





Korean *Chaebol*: Are They Heroes or Villains?

**Their Growth, Contributions, and
Concentration of Economic Power**



Evolution of Chaebols

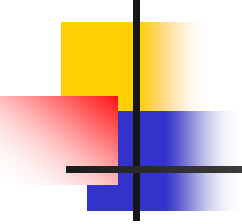
during the 1940s & 1950s

- Sale of the **properties reverted from Japanese ownership** at below market prices payable over 15 years
 - Bought by former employees, businessmen, skilled workers, technocrats -> source of new commercial/industrial capital
- **Privatization of 54 SOEs** incl. banks in the early 1950s
- **Aid raw materials & production facilities** distributed to producers at subsidized prices
- **Corporate bankruptcies** in 1956-57 -> a wave of M&A (corporate diversification)



Evolution of Chaebol in the 1960s

- **Military coup** in 1960
 - Some businessmen penalized for unethical/illegal business practices; **large-scale manufacturing** mostly survived
- **Industry promotion & protection**
 - Nationalization of once privatized commercial banks; **policy loans; foreign loan guarantees**
 - **Promotion of industries**: cement, (petro)chemical, steel, shipbuilding, electronics
 - **Bankruptcies** of some foreign-loan-financed companies -> mergers
 - **Entry barriers**, cartel-like trade associations



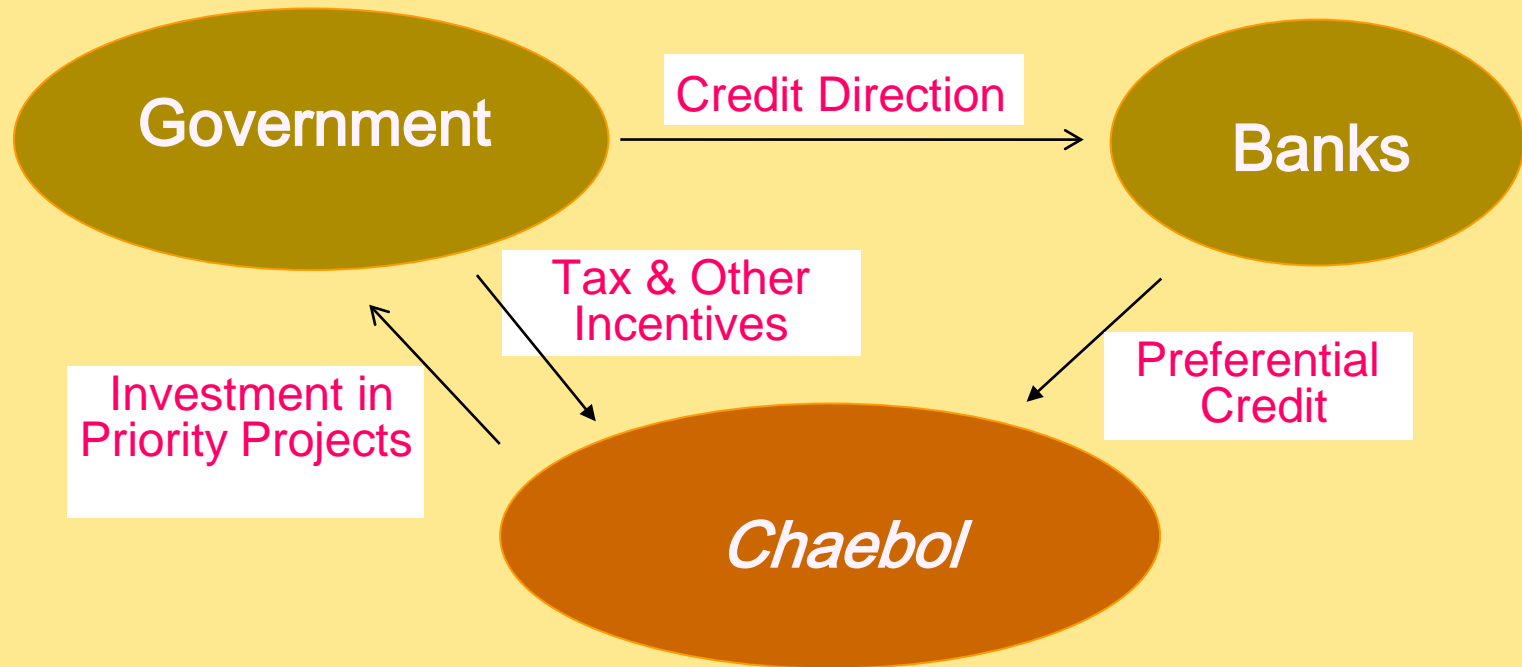
Evolution of Chaebol since the 1970s

HCI drive: rapid growth & diversification

- Preferential policy loans & tax incentives
- Cross shareholding & in-group repayment guarantees
- Acquisition of defaulted firms
- Monopoly/oligopoly in small domestic markets -> growth constrained -> entry into new markets
- New business opportunities: Middle East construction boom, NBFIs, general trading companies
- Capital gains from real estate holdings

Development Partnership (Korea, Inc.)

Government, Banks & *Chaebol*



Government: risk partner for both banks & chaebol
Banks & chaebol: moral hazard behavior



Efficiency of the Gov-Chaebol Partnership in the Early Development Phase

■ Strong incentives

- Exclusive undertaking of large investment projects
- Government supports: subsidized policy loans, low-cost foreign capital, tax incentives, protection from imports, etc.

■ Effective monitoring

- Political leadership strongly committed to economic development and supportive bureaucracy

■ Sensible performance criteria: export performance as the ultimate test of efficiency & success

■ Small number of Partners (big Chaebol)

- For ease of coordination, monitoring and rent distribution in a multi-period setting



Degeneration of the Partnership in Changing Environments

- **Environment changed** to make the Development Partnership increasingly inefficient
 - Market pressure for **deregulation & fair competition**
← Declaration of democratic reform (1987); globalization
 - **Weaker monitoring & increased corruption** ← death of President Park; weaker incentives; democratization
 - **Number of large enterprises** increased with industrial development
- The Partnership should have been phased out, but **survived as a vehicle of symbiosis** (a corrupt political partnership)
 - Controlling owners of chaebol actively attempting to **maximize their family interests**
 - **Moral hazard** behavior of chaebol & banks remaining



Chaebol Policies

- **Credit control** system: principal transactions bank (1974)
- Encouraging firms to **go public** (1974)
- Holdings of **non-business-purpose land & marginal subsidiaries** discouraged (1980)
- Curbing **concentration of economic power** under the Monopoly Regulation & Fair Trade Act (1980)
 - Prohibition of holding companies; regulation of cross shareholding and cross repayment guarantees, etc.
- Inducing **specialization into 'core businesses'** (1991)
- Imposing **corporate governance** rules for better protection of minority shareholders, etc. (1998)



Advantages/Risks of Family Businesses

- Strong **commitment & dedication**: family & work (two most important values) in one
 - **Communication & decision-making** facilitated
 - **Agency problem** minimized? (ownership & management not separated)
- Rivalry, bitterness & **tension among family members** (including transfer of corporate leadership)
 - Business decisions often compromised with **family priorities**
 - **Professionalism** compromised



Chaebol: Diversified Family Business Groups

Merits

- **Synergies:** economies of scale & business scope
- **Uncertainties/risks reduced:** bold in undertaking risky & challenging projects
- **In-group mobilization** of finance, manpower, etc.
- **Long-term business horizon** <- management stability
- Strong **commitment/ dedication**

Demerits

- **Econ. power concentration** -> political influence
- **Competition** impaired
- **Pursuit of family interests** at the expense of minority owners (poor corporate governance)
- **Exit barriers:** too-big-to-fail (cross-subsidy/shareholding; bailout)
- **Economic instability:** risk of chain bankruptcies



Distinguishing Features of Chaebol

Trying to Maximize Their Family Interests

- Preoccupation with **management control**
 - **Circular shareholding** among subsidiaries (separation of control from cash flow rights)
 - **Succession of chairmanship** by family members
 - Weak CG & poor transparency
- **High D/E ratio** for maximum growth without ownership dilution (for firms with moral hazard)
- **Extensive diversification** for continued growth with ample room for abusive internal transactions
- **Poor profitability** as the result of pursuing private interests of controlling families

Rate of Ordinary Profit to Total Capital (%)

	1994	1995	1996	1997	1998	1999
Top 30 Chaebol	2.2	3.2	0.6	-0.7	-2.0	-0.7
Top 5	3.5	5.3	1.2	0.3	-1.4	4.5
6-10 th	1.2	1.0	-0.7	-2.3	-0.5	-24.5
11-30 th	-0.1	-0.1	0.1	-2.4	-4.8	-0.3
All Industries*	2.8	3.1	1.1	-0.2	-1.2	-0.3
(Manufacturing)	2.6	3.6	0.9	-0.3	-1.5	1.4
Listed Companies	2.9	3.3	1.3	0.2	0.9	4.0

Note:* Excluding financial industry

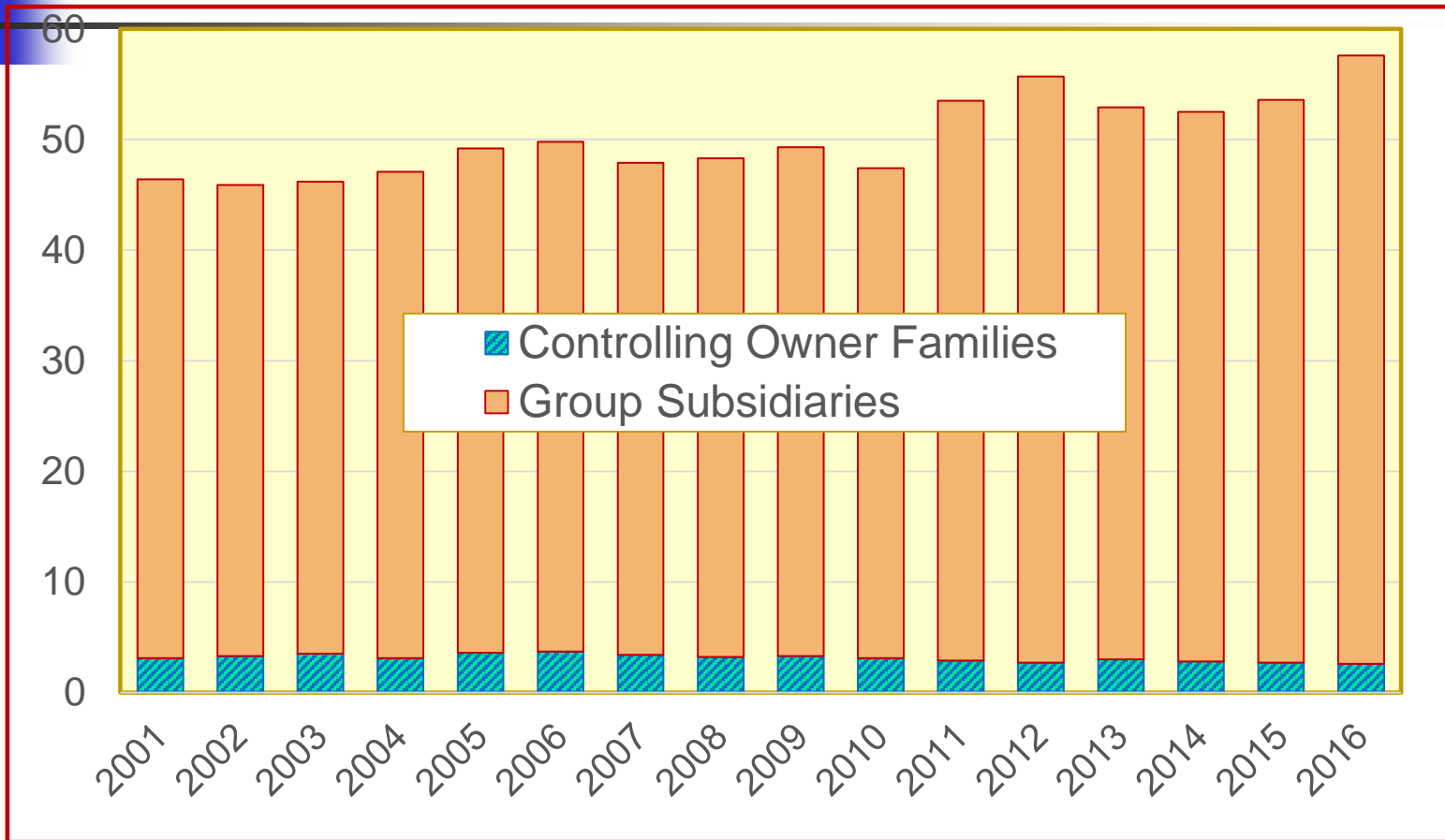
Concentration of Economic Power (%)

Top 30 Business Groups (Non-Financial)

	2001	2007	2012
Corporate Sales (Top 4 BGs)	35.7 (21.8)	32.6 (17.3)	37.1 (19.8)
Corporate Assets (Top 4 BGs)	32.5 (17.3)	38.2 (17.7)	35.9 (18.0)
GDP (value-added) (Top 4 BGs)	6.3 (3.9)	10.1 (5.1)	11.8 (7.5)

Source: Korea Economic Research Institute (December, 2014)

Trend of In-Group Ownership (%, Top 10 chaebol)













Note: Shares held by corporate executives and affiliated nonprofit corporations as well as holdings of own stocks are also included in 'group subsidiaries.'

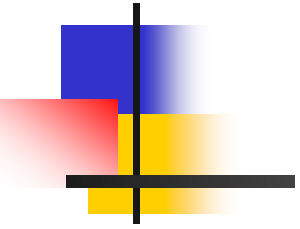
Status of Top 10 Chaebol (2016)

	No. of Subsidiaries (May, 2017)	No. of Business Lines	% Share of In-Group Transactions	% In-Group Ownership
Samsung	62 (17) *	28	7.6	52.0 (1.1) **
Hyundai Automotive	53 (6)	25	17.8	51.6 (3.3)
SK	96 (1)	28	23.3	61.3 (0.4)
LG	68 (1)	28	15.2	40.1 (3.8)
Lotte	90 (11)	26	14.8	83.7 (2.6)
GS	69 (0)	28	5.1	60.9 (11.9)
Hanwha	61 (10)	28	5.1	61.3 (1.6)
Hyundai Heavy Ind.	29 (3)	14	10.4	71.9 (0.9)
Shinsegae	37 (0)	11	11.8	79.3 (3.3)
Doosan	26 (4)	12	7.2	45.0 (2.5)

Notes: * and ** (in the parentheses) are financial & insurance companies, and ownership by controlling owner families, respectively. Business lines are based on the Korean Standard Industrial Classification of the Korea National Statistical Office.

No. of *Fortune 500 Companies* by Major Country

	1996	2003	2008	2011	2013	2015	2017
 United States	162	192	153	133	132	128	132
 China	3	11	29	61	89	98	109
 Japan	126	88	64	68	62	54	51
 France	42	40	39	35	31	31	29
 Germany	41	35	37	34	29	28	29
 United Kingdom	34	34	34	30	27	29	23
 Korea	13	13	15	14	14	17	15
 Switzerland	14	11	14	15	14	12	14
 Netherlands	8	11	13	12	12	13	14
 Canada	6	14	14	11	9	11	11



Thank you!

