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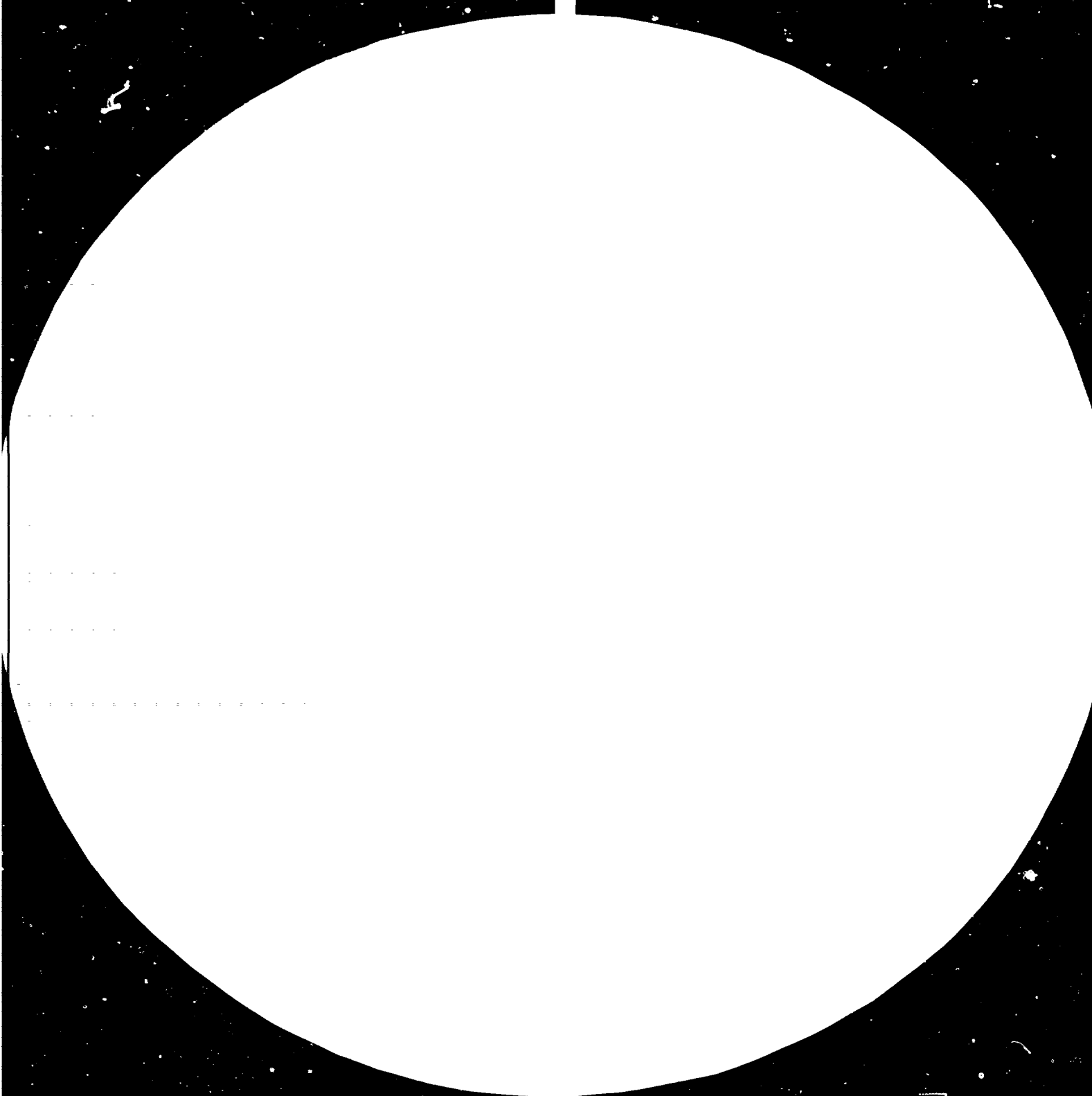
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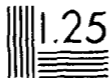




1.0



1.1



1.25



1.4



1.6

2.8



2.5

3.2



2.2



2.0



1.8

Resolution Test Chart

1.0 1.1 1.25 1.4 1.6 1.8 2.0 2.2 2.5 2.8

3.2 3.6 4.0 4.5 5.0 5.6 6.3 7.1 8.0 9.0 10.0 11.2 12.5 14.0 16.0 18.0 20.0 22.5 25.0 28.0 32.0 36.0 40.0 45.0 50.0 56.0 63.0 71.0 80.0 90.0 100.0



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Exchange Network (TIEN)

Bridgetown, Barbados, 26 9 28 January 1982

COUNTRY BRIEF: REPUBLIC OF KOREA*

prepared by

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I. General Trends of Korean Economy

Principal Economic Indicators

Classification	Unit	1976	1980	1981		1982 (Estimation)
				Comparison with 1980 (%)		
Per Capita GNP	US Dollars	765	1,481	1,636	10.5	1,867
Economic Growth rate (real)	Percentage	15.1	Δ 6.2	7.1		7
Production Index	1975 = 100	131.8	215.9	235.5	10.9	
Domestic Credit	Billion	4,468	16,777	22,509	34.2	27,824 Comparison with 1981
Money Supply	Billion	1,544	3,807	4,001	5.1	18 % Comparison with 1981
Whole Sale Price Index	1975 = 100	112.1	254.3	284.2	11.8	10 %
Commodity Export	Million Dollars	7,715	17,505	21,190	21.1	25,000
Commodity Import	Million Dollars	8,774	22,292	26,345	18.2	27,900
Current Ac Balance	Million Dollars	Δ 314	Δ 4,151	Δ 5,320		Δ 4,400

The Korean economy has sustained over a world wide recession and the upswing of the industrial production caused the economy to grow by 7.1% in comparison with that of 1980.

[Average annual growth rate during 1972 to 1976; 11.2%]
[Average annual growth rate during 1977 to 1981; 4.5%]

—Tight control of money supply since 1980 has maintained and its growth rate marked 5.1% as compared with that of 1980.

(Domestic credit increased by 34% as compared with 1980)

—Wholesale price increased by 11.8% in comparison with 1980 due to oil price hike and high rate of devaluation of Korean currency in spite of government's efforts for stability.

—Deficit of current balance of payments rose on an account that payment of foreign loan interest jumped and tour revenue reduced while trade balance was improved slightly in comparison with 1980.

—Export amount reached to 21.2 billion dollars by the help of political stability and devaluation of Korean currency.

Several problems had been, however, emerged to be solved to achieve the continuous high rate of economic growth during 1980s.

- o Internal environment; Weakness of export price, Competitiveness of export industry and pressure from high inflation of foreign countries and etc.
- o External environment; Growing trend of trade protectionism of advanced countries and rising competition with other developing countries.

II. Status of Industrial Technology Development

i. Level of Industrial Technology

—Korean strategy for strengthening international competitiveness enters a new turning point. Korean industrial technology is still focused on improved productivity and lower cost. Policies for technological development should be intensified to provide adequate incentives to develop high technology products rather than those based on abundant manpower.

—Level of technology is defined by the average of the such factors as number of patent registration by the domestic patentee, amount of technology trade, value addition of manufacturing industry, and export amount of high technology products.

- o Capability for technology development is not high in consideration of the inputs of the R&D resources and performance of R&D.
- o Contribution of technology to economic growth; 7.2% during 1966 to 1976 which is lower than 20 to 30% of the major advanced countries.

2. Status of R&D

* International comparison of investment in P&D activities

- Investment in Science and Technology (1980) -

	<u>Korea</u>	<u>U.S.</u>	<u>German</u>	<u>Japan</u>
Comparison with GNP (%)	0.7	2.46	2.64	2.15
Technology Trade (1979)				
Import of Technology (100 Mil. \$)	<u>Korea</u>	<u>U.S.</u>	<u>German</u>	<u>Japan</u>
	0.9	4.5	8.2	12.4
Export of Technology (100 Mil. \$)	-	47.3	3.4	2.7

3. Plan for Investment in Science and Technology

	<u>'82</u>	<u>'84</u>	<u>'86</u>
- Investment amount (billion won, 1982, Constant)	713.3	1082.2	1468.6
- Ratio to GNP (%)	1.3	1.7	2.0
- Ratio between Government and Private Industry	49.51	47.53	45.55

III. Supporting Mechanism for Development
of Industrial Technology

1. Financial Assistance

Financial assistance has been so far focused to assist "Hardware" by the conventional financial institutions. As the Korea Technology Development Corp (KTDC) started its financing operation for the first time of its kind in Korea in order to support "software" area of technology development, the conventional financing activities will be complemented.

Mechanism

Classification	Institutions	Terms	Interest (per annum)	Financing Objectives
o R&D funds	Korea Technology Development Corp.	Up to 10 years	14.5 - 15.5	o RD&E activities o Technology consulting o Technology import o Specialized training o Commercialization of new Technology

<p>Technological Development Fund</p>	<p>Korea Development Bank</p>	<p>Up to 8 years</p>	<p>15.5 - 16.5</p>	<p>o Facilities for Commercialization of new technology o Technology Consulting Services</p>
<p>Funds for Productivity Improvement</p>	<p>the Small and Medium Industry Bank</p>	<p>Up to 8 years</p>	<p>Equipment Facilities 15% Working Capital 16%</p>	<p>o Facilities for Commercialization of new technology o Product Quality Improvement</p>
<p>Funds for Promotion of Electronics Industry</p>	<p>the Electronics Industry Improvement Association</p>	<p>Up to 8 years</p>	<p>6.0</p>	<p>o Equipments for technologies and import of technology in the area of electronics component</p>

<p>Revolving funds for machinery Industry</p>	<p>the Machinery Industry Improvement Association</p>	<p>Up to 5 years</p>	<p>6.0</p>	<ul style="list-style-type: none"> o Facilities for technology development by small and medium-sized company
<p>National Investment Fund</p> <ul style="list-style-type: none"> o Funds for procurement of domestic machinery o Funds for construction of Machinery plant o Defense Industry, Electronic Industry 	<p>Banks including KDE</p>	<p>Up to 8 years</p>	<p>16.5 - 17.5</p>	<ul style="list-style-type: none"> o Facilities and working capital of major industry o Funds for reservoir of raw material o Fund for procurement of land o Funds for procurement of Industrial facilities

Planned Shipbuilding			14.5	
Production of Crops			15 - 15	
Export Credit Financing			9	

2. Tax Support Mechanism;

Reserve fund for technology development ;

the firms are allowed to reserve the larger amount of the reserve of 20% of the profit and 1% of the total turnover.

(In the case of high tech industry, the larger amount of either 30% of the profit or 1.5 % of the total turnover.

- Tax credit period; 4 years

- Objectives of utilization;

- o Technology development activities. Acquisition of technology information. Specified training of technology. R&D facility. Equity investment in the Korea Technology Development Corporation.

- Tax Deduction System;

- o With regard to such expenses as technological development expenses and man power development expenses, 10% of the appropriate expense is allowed to deduct from the income tax.

- o With regard to commercialization of new technology
6-10 % of such investment is allowed to deduct from
the income tax.
- o With regard to capital outlay in P&D facilities and
and equipments, 8-10 % of such outlay is allowed to
deduct from the income tax.
- 50% of accelerated depreciation is allowed at the first year of
of acquisition of facility and equipment for commercialization
new technology and R&D.
- Installment payment for the customs duty on R&D equipment import
utilized by private industry's R&D institutes.
- Local tax exemption on land and building for the industrial
R&D institutes.
- Application of provisional tax rate to the high technology
products.

For the first two years: 10% of the standard tax
After 2 years until 3 years: 40% of standard tax
After 3 years until 4 years: 70% of standard tax
After 4 years: Standard tax rate shall be applied

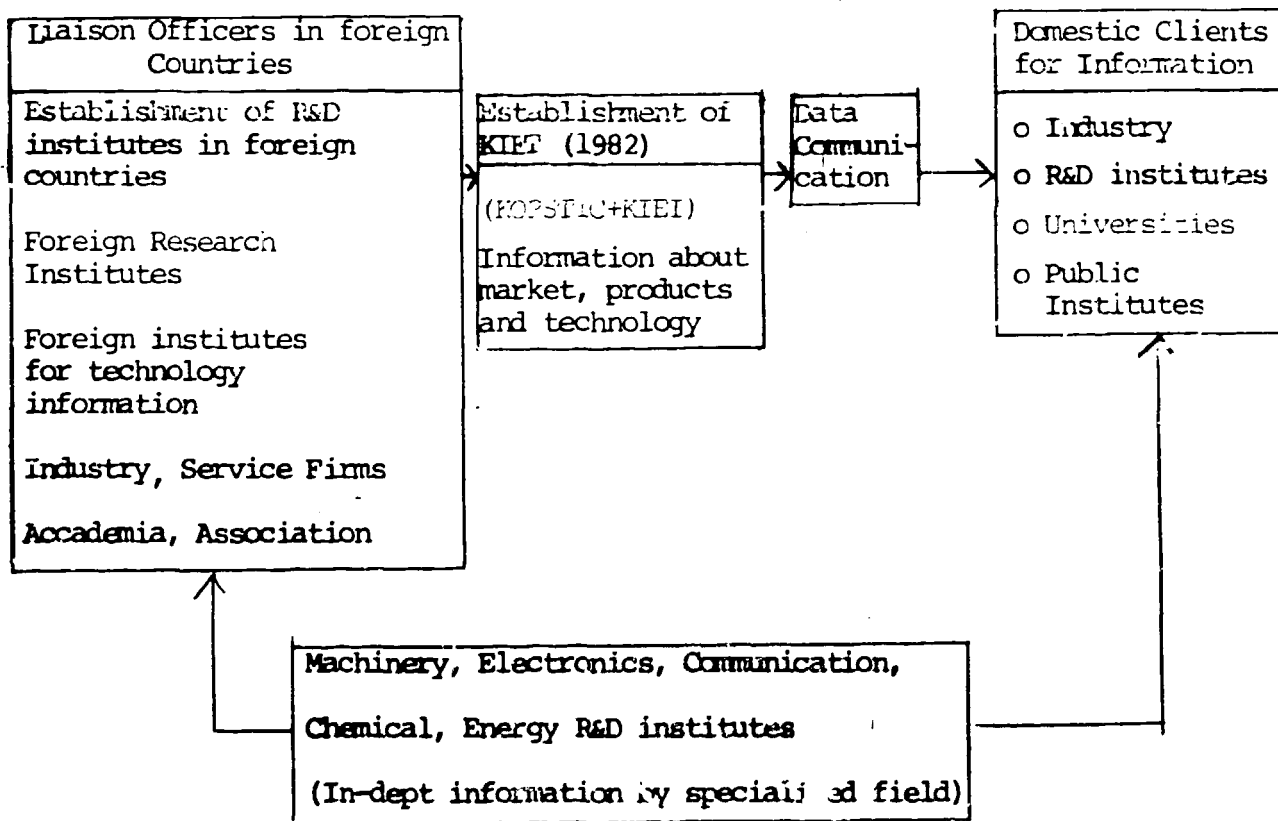
3. Other supporting mechanism

- o Channeling the industrial technology information through
Korea Institute of Electronics Technology (KIET), which
is a merger of the previous Korea International Economy
Institute (K I E I) & Korea Science and Technology
Information Corp (KORSTIC), established in 1982.

- Application and Development of Science and Technology and manpower training through KAIST, which is a merger of previous Korea Advanced Institute of Science (K A I S) and Korea Institute of Science and Technology (K I S T) established in 1981.

IV. Counter Measures

1. Establishment of supporting mechanism for foreign technology information collection.



- Establishment of international technological information exchange network.
 - o Establishment of International network
- Expansion of Liaison officers in foreign countries.

- o Full utilization of foreign data banks.
- o Full utilization from foreign R&D institutes and acquisition of technological information
- Intensification of function of information collection on specialized field
 - o Intensification of analytical function of in-depth information about Electronics, machinery, chemical R&D institutes.
 - o Expansion of library specialized function of Science & Technology led by KAIST
- 2. Establishment of nation-wide information exchange net work;
 - Intensified function of nation's data bank led by KIET.
 - o Establishment of regional information exchange net work
 - o Inter-utilization mechanism of information by the specific fields.
 - Incorporation of Korea Telecommunication Agency and Data communication Corporation.
 - o Supply of the information to domestic information clients such as private firms, R&D institutes, university, and public institutes through Data Communication Corporation.

3. Promotion for development and application of computer system operations technology.
 - o Development of computer system operations technology, Improvement of specialized man-power, and promotion of integrated or specialized computer development center for supporting R&D activities of related R&D institutions.
 - o Fostering of private information processing and information service organization.

4. Strengthening of Software fund assistance through KTDC
 - o KTDC, which was established to finance technology development, supplies long-term and low-interest funds to companys.
 - o Supply funds for the technology development, commercialization, and import of technology to company.
 - o Implementation of financing system using up-todate techniques such as conditional loan and venture capital, and etc., including conventional loan.



