

EXHIBIT I-14

PUBLIC DEBT COMPARISON: U.S. AND ICELAND  
(figures in parentheses refer to externally-helped debt)

<u>ICELAND</u>	<u>1966</u>		<u>1973</u>	
Total	\$51.0 Million	(\$21.2M)	\$165.3 Million	(\$94.2M)
Per Capita	\$259	(\$108)	\$773	(\$441)
Percent of Current GNP	8.6%	(3.6%)	14.9%	(8.5%)
 <u>U.S.</u>				
Total	\$329,300 Million		\$469,900 Million	
Per Capita	\$1,675		\$2,233	
Percent of Current GNP	43.9%		36.3%	

Sources: Central Bank of Iceland  
U.S. Economic Report of the President (1975).

current obligations) over the 1975-82 time period will require annually between \$11.7 and 13.3 million of foreign exchange, and will increase considerably thereafter. These requirements obviously impose further constraints upon additional foreign borrowing.

#### 6. Employment and Productivity

As a result of its successful prosecution of full employment goals and low population growth, Iceland has virtually no unemployment. In fact, its labor resources are severely strained with unemployment rates averaging less than 1 percent over the past four years (see Exhibit I-15). The scarcity of labor has contributed additional upward pressure on wage rates and has resulted in an increasing amount of overtime and moonlighting by the labor force, thus substantially increasing aggregate demand and consumption.

Exhibit I-16 compares the size of the potential labor force (men and women in the age bracket of 15-69 years) with the projected labor force actually (or projected to be) employed over the 1971-85 time period. The yearly increase in employed labor force ranges between 1,238 and 1,797 (averaging 1,648) whereas the potential increase in labor force averages 2,591, thus reflecting a constant overall labor participation rate of 64 percent. As can be seen, the participation rate by sex reflects a relatively low rate by women. As an indication of the untapped labor resource represented by Icelandic females, a female participation rate equal to that of Sweden (44 percent) would provide approximately 10,500 more females in the employed work force beyond the 28,000 projected for 1980. As the commerce and services sectors (especially

EXHIBIT I-15

UNEMPLOYMENT IN ICELAND: 1969-1974

	<u>Numbers of unemployed</u>	<u>Percent of Total Labor Supply</u>
1969	1975	2.5
1970	1054	1.3
1971	560	0.6
1972	444	0.5
1973	350 (est.)	0.4
1974	350 (est.)	0.4

Sources: Hagtinidi  
Economic Development Institute

EXHIBIT I-16

FORECAST INCREASE IN LABOR FORCE TO 1985

Year	Potential labor force (Persons in age groups) (15-69)	Actual Labor Force			Annual Increase in Actual Labor Force (over prev. yr.) No.	Annual Increase in Potential Labor Force
		Men	Women	Total		
1971	130,711	59,407	23,667	83,074	1792	2806
1972	133,516	60,658	24,206	84,864	1790	2805
1973	136,321	61,911	24,745	86,656	1792	2805
1974	139,133	63,169	25,284	88,453	1797	2812
1975	141,901	64,466	25,760	90,226	1773	2768
1976	144,668	65,762	26,238	92,000	1774	2767
1977	147,432	67,056	26,715	93,771	1771	2764
1978	150,196	68,349	27,191	95,540	1769	2764
1979	152,967	69,650	27,668	97,318	1778	2771
1980	155,368	70,857	27,998	98,855	1537	2401
1981	157,766	72,062	28,327	100,389	1534	2398
1982	160,272	73,329	28,657	101,986	1597	2506
1983	162,556	74,469	28,983	103,452	1466	2284
1984	164,807	75,637	29,264	104,901	1449	2251
1985	166,764	76,626	29,513	106,139	1238	1957
<u>Average Participation Rates</u>						
		<u>20 - 24 yrs.</u>		<u>25 - 49 yrs.</u>	<u>50 - 69 yrs.</u>	
Men:	60%	90%		97%	95%	
Women:	60%	45%		30%	32%	
		<u>Overall</u>			<u>Overall</u>	
					90%	
					32%	

Source: Economic Development Institute and Checchi and Company

tourism-related) increase in importance within the national economy the increase in female participation rate would be an important potential source of labor for Iceland.

Finally, *the large student population of Iceland (over 15 years old) constitute an important labor resource, a resource which to all indications is actively utilized during its 3-4 month summer availability.* In fact, the Ministry of Education reports that the 11 - 12,000 students no longer have a need for student placement agencies, as all who wish to work can find employment. Assuring that 80 percent do so, this is the equivalent of approximately 2,500 man-years.

Exhibit I-17 distributes the average annual increase of employees among the sectors of the Icelandic economy. As can be seen, manufacturing and commerce are the projected leading sectors in employment, together providing over 53 percent of additional employment in the 1971-85 period.

To place the growth of sectoral employment in context with sector output, (i.e., labor productivity), Exhibit I-18 shows that manufacturing, construction, and transport/communications/utilities--all sectors with heavy capital outlays--are the most labor-efficient sectors. However, only the manufacturing sector has shown steady increase in both employment and output over the 1970-75 period. Conversely, agriculture and fishing/fish processing have declined in both output and employment during the period.

#### 7. Regional Development

*The interregional distribution of population and economic activity within Iceland reveals a striking disparity between Reykjavik*

EXHIBIT I-17

FORECAST DISTRIBUTION OF LABOR FORCE INCREASE (1971-85)

	<u>1971</u>	<u>1985</u>	<u>Avg. Annual Change 1971-1985</u>
Agriculture	9,138	8,703	- 31
Fishing	5,068	4,882	- 13
Fishing Processing	6,729	8,279	111
Manufacturing	14,704	20,697	428
Construction	9,387	12,631	232
Electrical, Gas, Water	582	849	19
Communications	7,061	11,463	314
Commerce	11,464	17,725	447
Other Services	<u>18,941</u>	<u>20,909</u>	<u>141</u>
	83,074	106,139	1648

Sources: Economic Development Institute  
 Checchi and Company

EXHIBIT I-18

GROSS DOMESTIC PRODUCT AND EMPLOYMENT  
BY INDUSTRY

	1970		1971		1972		1975 (estimated)	
	Output	Employment	Output	Employment	Output	Employment	Output	Employment
Agriculture	7.5%	12.0%	7.1%	11.0%	7.0%	10.3%	6.6%	9.7%
Fishing & Fish Processing	13.5	14.8	13.5	14.2	11.7	13.5	11.6	13.6
Other Manufacturing	15.6	17.4	18.0	17.7	18.9	18.1	20.2	19.1
Construction	14.7	10.7	14.2	11.3	15.0	11.2	15.9	12.0
Public Services	7.5	15.0	7.4	15.1	7.2	15.6	7.3	16.0
Other <sup>1</sup>	<u>41.2</u>	<u>30.1</u>	<u>39.8</u>	<u>30.7</u>	<u>40.2</u>	<u>31.3</u>	<u>38.4</u>	<u>29.6</u>
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

1 Includes transport, communications, utilities, trade, finance, and business services.

Sources: National Economic Institute and OECD Survey

*and the outlying regions. The problem of decentralization and planned population settlement is a major one, given the strength of centripetal forces. Since a country is typically committed to preservation of the regional patterns of living bequeathed by history, its development, growth and social progress requires that economic, social and environmental planning be conducted on the basis of multiple--not unitary--objectives. Although a "better" regional balance is a vague concept, loaded with subjective and political judgments, there is nevertheless agreement that a movement toward decentralization is desirable. The question that remains unresolved, in Iceland as elsewhere in the urbanizing world, is the "optimum" achievable level of decentralization.*

Almost all OECD countries now pursue policies to correct regional imbalances. Although differences in geographic configuration, resources and population preclude simple generalizations between countries, the regional experiences of the Nordic countries share certain similarities with that of Iceland. All of these countries have been economically progressive and prosperous, but the improvements in conditions have not been evenly spread throughout the countries. *The regional problem is not that of a contrast between "backward" or declining regions on the one hand and the more advanced and progressive regions on the other, but rather that of geographical shifts of economic activity.* In each of the five countries, there is heavy centralization of population in the capital regions: about 25 percent in Denmark, Norway, Finland, and Sweden but nearly 60 percent for Iceland. Though none of the capital cities are large by world standards, ranging from one-half to one million population for Denmark, Norway,



Finland and Sweden, they are very large in proportional terms. *Allowing for the strength of centripetal forces, it is nonetheless necessary to focus on the outlying regions or local areas which, whether because of remoteness or scattered populations, require special support if any movement toward regional balance is to be achieved.* None of this, of course, presupposes that all migration from the rural areas is to be rigidly resisted or that all areas have equal capacity for economic growth. It does argue for a sensible regional policy, perhaps based on encouraging growth centers in selected areas.

Exhibit I-19 presents demographic and income data on six regions in Iceland. All indicators lend credence to the strong centralizing tendencies that are evident in the Icelandic distribution of population and activity. With nearly 60 percent of the nation's population and the highest population growth rate, Reykjavik is the overwhelming focus of economic, social, and cultural activity. Although no formal program of decentralization incentives and regional growth centers exists per se, potential growth centers have been informally designated. These are shown in Figure I and Exhibit I-20. The primary growth centers, other than Reykjavik, are Akureyri, Isafjordur and Egilsstadir. Given the level of population imbalance shown in Exhibit I-20, the possibility of redress is limited. *The tourism development program can make some contributions to a regional decentralization program, primarily through creating a greater awareness of the attractions of the outlying areas of Iceland and by moderate expenditures for infrastructure and capital improvements in local attractions.* This is a change in orientation that

EXHIBIT I-19

Demographic and Income Data by Region

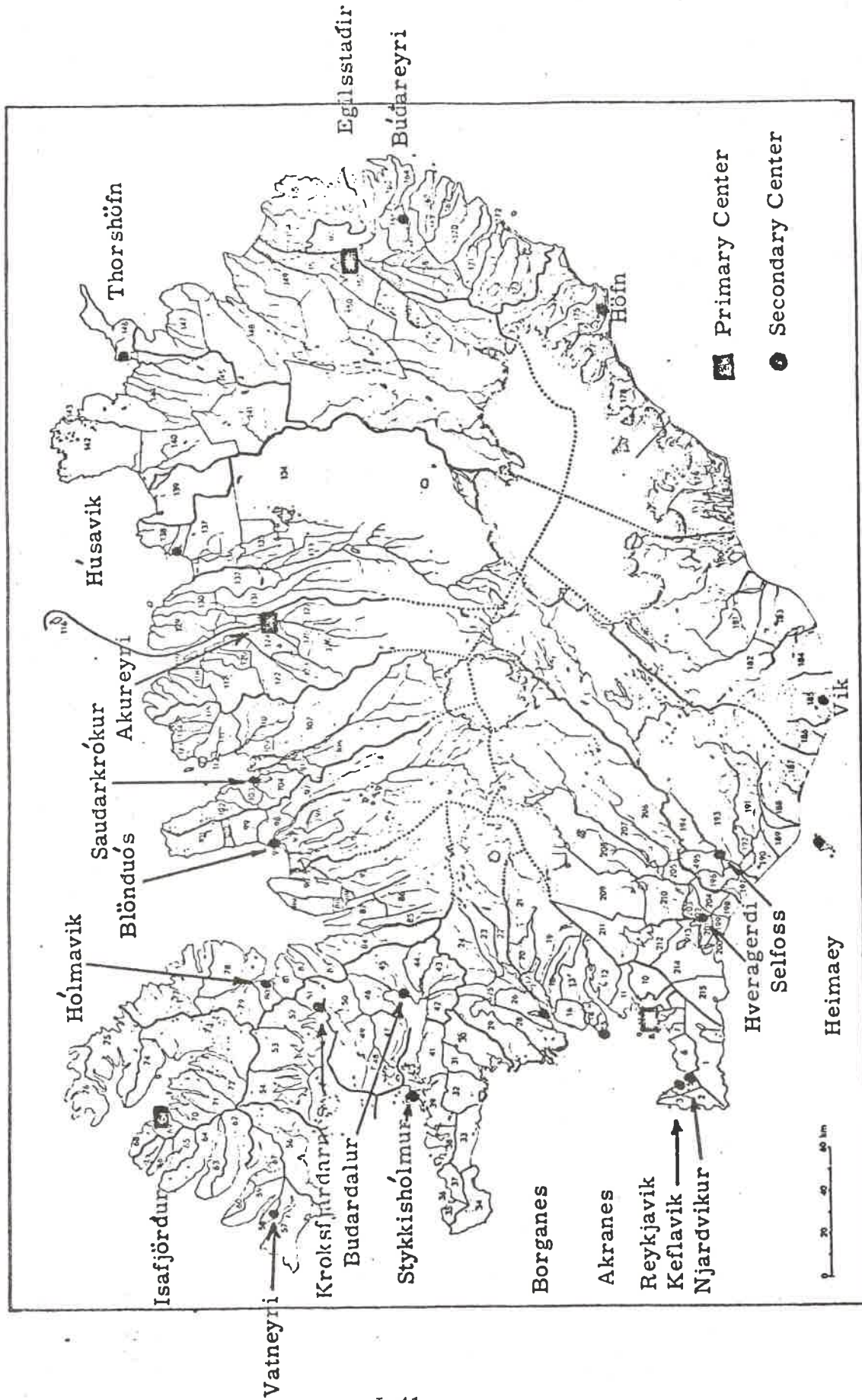
	Reykjavik Area*	North	Northwest	West	South	East	Total
1. 1973 Population	126,416	23,235	10,016	23,632	18,442	11,758	213,499
2. Percent of Total Population, 1973	59.2	10.9	4.7	11.1	8.6	5.5	100.0
3. Percentage growth in population, 1963-73	18.0	11.0	3.0	2.0	11.0	9.0	13.0
4. Net migration as percent of population growth, 1965-85	+31%	-55	-95	-10	-30	-30	0
5. Area, sq. km.	1,920	21,680	12,880	19,040	24,990	22,490	103,000
6. 1973 population density	65.8	1.1	0.8	1.2	0.7	0.5	2.1
7. Percentage deviation from mean income for total country, 1969	+ 5.7%	- 9.5	- 6.4	- 7.1	- 4.7	-15.2	0
8. Record growth 1703-1973: 1703=1.00	32.5	3.9	1.7	1.3	1.6	2.3	4.2

\* Includes Reykjanes Peninsula

Sources: Economic Development Institute  
Central Bank of Iceland

FIGURE I-1

DESIGNATED GROWTH CENTERS IN ICELAND



SOURCE: Framkvæmdastofnun Ríkisins (Economic Development Institute)

EXHIBIT I-20

POPULATION OF DESIGNATED GROWTH CENTERS (December 1973)

Akranes	4,406
Akureyri*	11,484
Blonduos	757
Borganes	1,268
Budardalur	230
Budareyru	(not available)
Egilsstudir*	821
Heimaey (Vestmannaeyjar)	4,906
Hofn	1,099
Holmavik	335
Husavik	2,129
Hveragerdi	990
Isafjordur*	3,114
Keflavik	5,978
Kroksfjardarnes	(not available)
Njardvikur	1,700
Reykjavik*	98,432
Saudarkrokur	1,750
Selfoss	2,637
Stykkisholmur	1,094
Thorshofn	461
Vatneyri	(not available)
Vik	374

\* Primary Growth Center.

Source: Central Bank of Iceland.

is long overdue. Providing an improvement in communications and local "quality of life", it is just the first step along a long, yet-to-be formulated road of regional development.

#### 8. Recommendations in Light of Recent Developments

*Events of the last two years have only served to exacerbate the resource and credit problems discussed herein.* The balance of trade has gone from a deficit of \$32.2 million in 1973 to a huge deficit of \$127.9 million in 1974. For the first time since 1967, the services account was also negative (\$-7.6 million). Borrowing on the capital account rose from \$22.2 million in 1973 to \$83 million in 1974, while foreign exchange reserves fell by \$51.3 million.

In addition, the availability of local capital was hampered by the dislocating effects of the sharp rise in the inflation rate and the increasingly large amounts of capital that remained outside of the control of the national monetary authorities (viz., the growing Investment Credit Funds, pension funds, etc.). All the foregoing contributed to the sharp increase in the demand for foreign capital from already excessive levels. The rising costs of specific imports, especially petroleum, have been a major element in this unhappy situation. To this should be added the unavoidable economic effects of the catastrophic eruption in Vestmannaeyjar in 1973 which resulted in not only a loss in production, but also in heavy demands on strained resources in the construction industry and special imports of housing to alleviate this human suffering.

*It is clear that any recommendations for new development projects in Iceland must confront these new and reinforced realities in the capital*

market. *With this in mind, investments in such diversifying and potentially important industries as tourism must be structured and scaled down to accommodate capital limitations.* Specifically, where large foreign investments are considered essential, capital participation should be sought in the form of soft loans or outright grants. Eligibility for these, however, must presume that the investment has widespread benefits and external economies for the world community that will be underwriting these projects. It is believed that only the Research Center discussed in Book Three would meet these criteria, and further analysis and promotion of this concept is urged.

In areas where such external effects of international benefits do not exist, as in the tourism industry, the components of the tourism development plans must be structured to operate on rather moderate budgets of locally-raised monies. It is toward this end that the recommendation for regional mini-museums, visitor center, and expansion of the summer hotel concept is made. *Utilizing innovation and imagination in design, promotion, and operation to supplement the reduced level of investment in the tourism project will yet enable Iceland to increase both foreign exchange earnings and the quality of life for its own citizens.*