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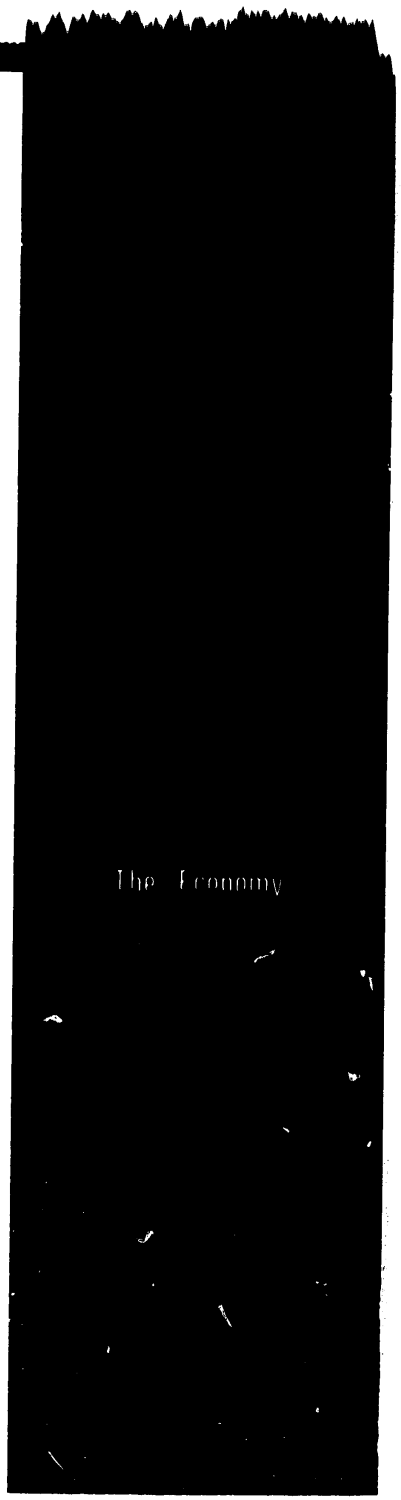

Iceland

June 1973

NATIONAL INTELLIGENCE SURVEY

CONFIDENTIAL

NATIONAL INTELLIGENCE SURVEY PUBLICATIONS

The basic unit of the NIS is the *General Survey*, which is now published in a bound-by-chapter format so that topics of greater perishability can be updated on an individual basis. These chapters—Country Profile, The Society, Government and Politics, The Economy, Military Geography, Transportation and Telecommunications, Armed Forces, Science, and Intelligence and Security, provide the primary NIS coverage. Some chapters, particularly Science and Intelligence and Security, that are not pertinent to all countries, are produced selectively. For small countries requiring only minimal NIS treatment, the *General Survey* coverage may be bound into one volume.

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Although detailed sections on many topics were part of the NIS Program, production of these sections has been phased out. Those previously produced will continue to be available as long as the major portion of the study is considered valid.

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Initial dissemination, additional copies of NIS units, or separate chapters of the *General Surveys* can be obtained directly or through liaison channels from the Central Intelligence Agency.

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This chapter was prepared for the NIS by the Central Intelligence Agency. Research was substantially completed by December 1972.

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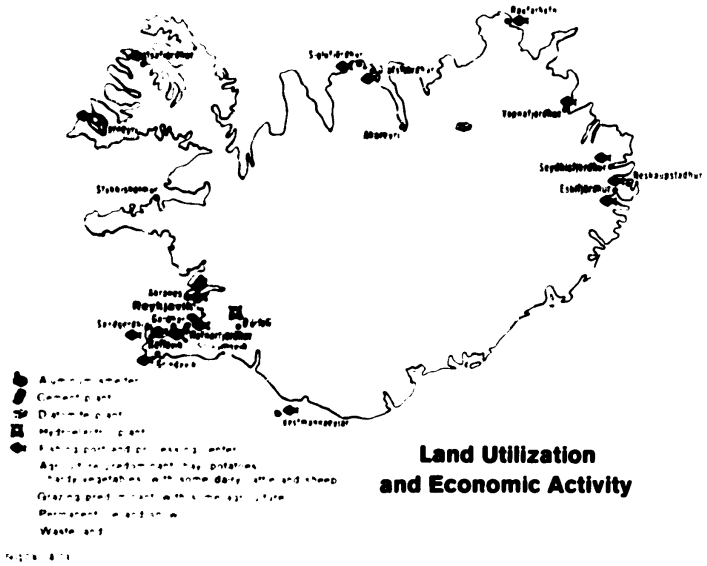


Land Utilization and Economic Activity

The Economy

A. Economic appraisal (U/OU)

Iceland, which has a population of only 209,000 persons, has a small economy that lacks many important natural resources and depends heavily on foreign trade to supply its economic needs and provide markets for its products. Since the beginning of the 1960's, foreign trade has expanded rapidly and the economy has prospered. Real GNP grew at an average annual rate of 4.5% from 1961 to 1971, despite a major recession in 1967-68. In 1971, Iceland's GNP (at current prices and exchange rates) stood at U.S. $591 million. Per capita GNP was about $2,830—somewhat above that in Finland but lower than in Denmark and Norway. Per capita ownership of consumer durables is generally similar to that in the other countries mentioned.

Iceland's prosperity depends largely upon the fish catch in the surrounding seas. Fishing and fish processing engage about one-seventh of the labor force and, more important, account for about four-fifths of Iceland's foreign exchange receipts. Some progress in diversifying exports is shown by the fact that in the early 1960's an even greater share of export earnings—more than nine-tenths—derived from sales of fish and fish products.

The development of industry (other than fish processing) has been hindered by a small resource base, the small domestic market, and efficiency lower than that of foreign competitors. Most domestic industry is small scale and geared to meet local needs. However, in an effort to broaden Iceland's economic base and reduce dependence on the volatile fish catch, the Icelandic Government is encouraging the establishment of larger export-oriented enterprises. Two major plants have begun operations: an aluminum plant (Figure 1) and a facility to extract and process diatomite—a material used in industrial filters.

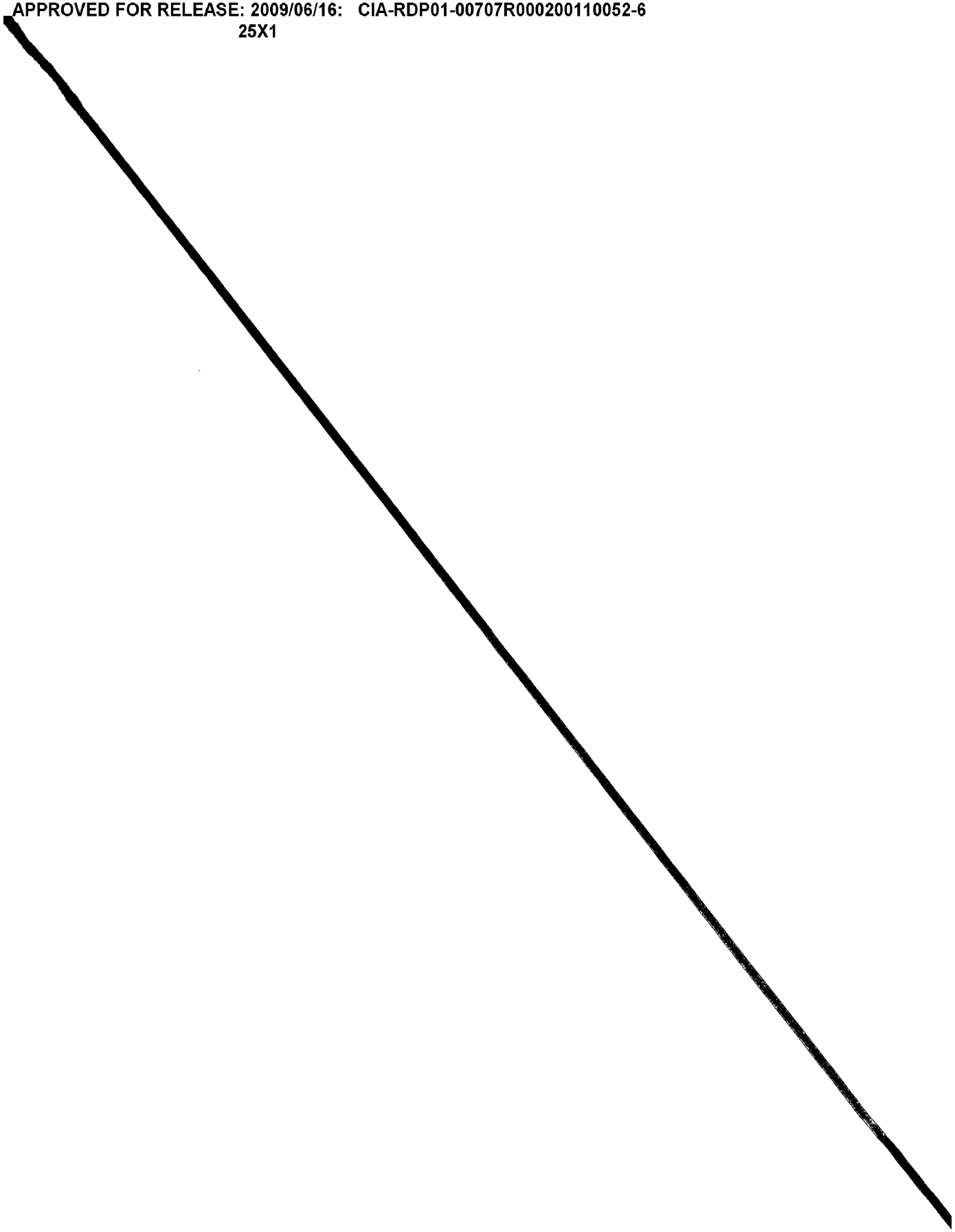
Agriculture, because of the cold climate and short growing season, is small scale and primarily pastoral. Cattle and sheep raising is the chief agricultural activity. Iceland is self-sufficient in livestock products, and some vegetables are grown in greenhouses heated by water piped from abundant hot springs. Other foodstuffs, including all cereals, must be imported.

Imports—equivalent in value to nearly one-third of the GNP—supply a large proportion of the goods consumed in Iceland. Western Europe and the United States are Iceland's chief suppliers and primary customers. Trade with the U.S.S.R. and East European countries, relatively large in the 1950's, now accounts for only a small portion of Iceland's foreign trade.

Most economic enterprises are privately owned, although extensive government ownership and control exist in some sectors. Nearly all fishing, agricultural, manufacturing, and commercial enterprises are privately owned, as are the country's two airlines. Communications facilities, public utilities, and certain projects requiring large amounts of capital (such as the diatomite plant and cement plant) are government controlled. In addition, the government influences the economy through widespread subsidy programs.

During most of the 1960's, the thrust of monetary policy was restrictive, and the central government's budget was in surplus. Nevertheless, Iceland's chronic inflation persisted, averaging over 11% annually. A price freeze in 1971 briefly checked the inflation, but, with the cessation of the freeze in 1972, prices resumed their rapid upward climb.

Economic growth during 1970-72 averaged nearly 8% annually in real terms. Export demand for fish products should tend to sustain Iceland's growth in the next few years. The fishing industry's weight in the economy and its inherent instability, however, continue to pose complex problems for growth and stabilization policies. The size of the fish catch is not only a factor critical to the growth of total output and the size of exports but also a source of inflationary wage increases. When boat crew earnings rise as the result of a good catch, wages in related industries such as fish processing are forced up as workers there attempt to maintain earnings parity with the boat crews. In turn, the mechanism tying agricultural earnings to those of skilled workers further extends the impact. So long as these institutional arrangements remain, growth and stabilization of the economy will



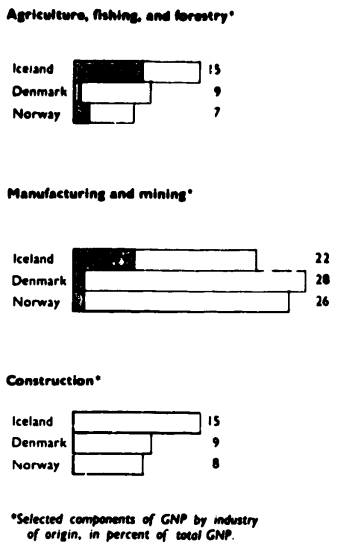


FIGURE 2. Comparison of economic structures: Iceland, Denmark, and Norway, 1969 (U OU)

Agricultural production is largely confined to an irregular coastal rim around the island's generally uninhabitable interior. Comprising nearly one-fourth of Iceland's total land area, agricultural land in this coastal rim is used almost exclusively to maintain livestock. As shown in the following tabulation, meadows and pastures occupying 22% of the total land area comprise virtually all of Iceland's agricultural land:

	Thousands of hectares	Percent
Agricultural land	2,280	*22.1*
Arable land and land under permanent crops	1	*Negl*
Permanent meadows and pastures	2,279	*22.1*
Of which:		
Cultivated meadows	103	*1.0*
Forested land	3	*Negl*
Built-on area, wasteland, and other	8,017	*77.9*
Total land area	10,300	*100.0*

A flourishing livestock and dairying industry accounts for nine-tenths of the total value of agricultural production. Livestock herds consist principally of sheep and cattle, although some pigs, goats, poultry, and horses are raised. Between 1950 and 1970, the sheep population rose from 400,000 head to about 800,000 head, while the stock of cattle rose from 43,000 head to some 55,000 head. Responding to governmental price policies and subsidies, cattle raising and dairying replaced sheep raising as the major source of farm income around 1961. Production of mutton, wool, and sheepskins significantly exceeds domestic requirements, and these products continue to constitute by far the largest share of agricultural exports. Iceland's production and exports of livestock and dairy products in 1970 are summarized below (in metric tons):

	Production	Exports
Beef	4,900	23
Mutton and lamb	12,200	2,970
Milk	117,500	0
Eggs	1,400	0
Wool	800	377
Sheepskins and hides	2,500	1,225

Crop raising plays a very small role. Most of the land is unsuitable for cultivation, and Iceland's location at high latitude provides only weak sunlight and an extremely short growing season. Hay, cut from the cultivated grasslands, is the principal crop, followed by potatoes and such vegetables as turnips, kale, carrots, and cabbage. Net of farm consumption, 290,000 metric tons of hay and 8,900 metric tons of potatoes were produced in 1970. Cereals are grown in small quantities on an experimental basis. Some vegetables, mainly tomatoes and cucumbers, are grown in greenhouses heated by water from natural hot springs. Most greenhouse produce is marketed commercially.

Iceland has slightly over 5,000 farms, of which about 85% are privately owned. Most of the rest are church property. The farms, widely scattered throughout the coastal rim, range in size from 150 to 1,200 hectares, the average being about 300 hectares. Less than 5% of the agricultural land is cultivated, although land reclamation is gradually increasing the cultivated areas.

Agricultural cooperatives play a key role in linking the farm sector to the rest of the economy. Nearly every farmer belongs to one or more of these cooperatives. Centrally organized into the Federation of Icelandic Cooperative Societies (SIS), the agricultural cooperatives purchase, process, and market the output of members' farms and sell consumer goods and farm supplies to their members. Many of the cooperatives extend credit and furnish information and advice on modern farming techniques. The SIS, together with other Icelandic

farm organizations also participate in planning and implementing the government's agricultural policy.

A principal objective of Iceland's agricultural policy is the [illegible] between farm and nonfarm incomes. A [illegible] with advice from the Agricultural Production Council, the government annually sets wholesale and retail prices for farm products at a level designed to establish parity between average farm income and the average income of [illegible] of skilled and unskilled labor. In addition, direct subsidies are used to support the production of certain agricultural products, to hold down [illegible] prices, and to lower the costs to the farmer of imported fertilizer and animal feed. These [illegible] have encouraged the [illegible] and have also resulted in excess production of certain commodities, particularly of milk and dairy products.

The government also is committed to a policy of extending and improving agricultural land and facilities. [illegible] and extends [illegible] for purchasing and improving farm equipment and buildings and for purchasing heavy equipment required to drain marshland, level hummock-covered fields and construct farm-to-market roads. The government assistance has contributed to a doubling of the area of cultivated grassland since 1950. The number of tractors has risen from just over 1,000 to more than 10,000 over the same period and milking machines, first introduced in the 1950s, now total more than 2,500. Wooden farm buildings are [illegible] and [illegible] replaced by concrete structures. [illegible] all farms have electricity and most have telephones.

b. Fisheries

Surrounded by some of the most productive fishing grounds in the North Atlantic, Iceland is one of the largest fishing countries of Europe. Accounting for 80% of Iceland's export earnings, fishing (Figure 3) and fish processing continue to dominate the economy. These activities employ 15% of the labor force directly and also provide a livelihood for many more Icelanders in boat building, cooperage, and

FIGURE 3. Redfish aboard an Icelandic trawler. Fish account for 80% of Iceland's export earnings, and redfish is one of the principal types of fish processed by freezing. (U OU)

other ancillary services. Consequently, the size of the fish catch is a key determinant of the economy's growth and prosperity.

The annual fish catch, however, has shown large variability for a decade (Figure 4). The main fluctuation in the catch has resulted from the migration of herring—into the northern reaches of the North Atlantic during the first half of the 1960's and more recently southward to areas beyond the range of Iceland's small trawlers. As the table indicates, the catch has fallen off sharply since 1966, largely as a result of the drastic decline in herring tonnage.

Intensified fishing in Icelandic waters by both native and foreign fleets has raised concerns about overfishing. In order to protect its grounds, Iceland in 1958 unilaterally extended its territorial limits to 12 miles, and in September 1972, to 50 miles. While creating diplomatic problems with other fishing nations that fish in Icelandic waters, these actions probably contribute to conservation of the stock of fish around Iceland.

Most fish are sold to the fish-processing industry. The major fishing ports have facilities for deep freezing and salting fish, and for reducing fish to oil and meal. Reykjavik is the center of fishing and fish-processing activities. Most of the demersal catch is quickfrozen, salted or dried, and then shipped to domestic or foreign markets. Important byproducts include cod liver oil—used for medicinal purposes and in manufacturing margarine—and frozen or salted cod roe. Most of the herring catch now is iced for domestic sale, while the increasingly large capelin catch is reduced to fish oil and meal. The disposition of the fish catch in 1970 was as follows (in percent of the total):

Frozen	41
Salted	15
Dried	4
Iced	11
For oil and meal	28
Canned or smoked	Negl
Home consumption	1
Total	100

The capital assets of the fishing industry consist primarily of some 800 fishing vessels totaling about 80,000 gross registered tons (g.r.t.), of which nearly one-third are vessels of over 100 g.r.t. The size of the fishing fleet remained static during the 1960's; however, substantial investments, financed in part by low-interest government loans, permitted significant modernization. Primary emphasis has been placed on larger, better equipped boats capable of ranging farther and spending extended time at sea. In 1970, for example, seven of the 33 new vessels added to the fleet were imported ships averaging 330 g.r.t., and the remainder were smaller domestically built vessels.

Fishermen's incomes strongly influence wage trends in other sectors of the economy. Part of a fisherman's earnings comprises a share of the value of the boat's catch. The fish price used in this calculation is determined each year through negotiation between the vessel owners and crews on the one hand and the fish-processing plant owners on the other. When the fish catch is good, fishermen receive higher earnings that soon engender increased wage demands in the industrial sector, most notably in fish processing. The procedure which guarantees parity for agricultural incomes extends the spread of higher wages and incomes throughout the economy.

c. Forestry

Iceland has practically no forests yielding commercial wood, although at one time forests covered most of the lowlands. Centuries of overcutting and overgrazing have destroyed the forests or reduced them to brush, except for about 3,000 hectares of scrub birch.

Experimentation has convinced Iceland's foresters that most of the required wood—for which the country is now wholly dependent on imports—could be grown locally, and that shelterbelts would increase agricultural yields. The forestry service has established a number of experimental tree nurseries, which now feature 40 species from various regions around the world, and maintains over 1,000 hectares of coniferous plantations. Efforts to preserve and enlarge the

FIGURE 4. Fish catch (U/OU)
(Thousands of metric tons)

	1960	1962	1964	1966	1968	1970	1971
Cod, ocean perch, haddock, and other demersal species	120	380	415	339	373	179	378
Herring	190	410	544	771	143	50	61
Other (principally capelin)	*Insig*	*Insig*	13	130	83	200	242
Total	529	790	972	1,240	599	729	681

remnants of the once widespread birch forests have met with considerable success. Nevertheless, in view of the northern location of the country, it will be some years before Icelandic forests yield commercial wood.

2. Fuels and power (C)

Iceland has vast hydroelectric and geothermal power resources but no known deposits of coal, petroleum, or natural gas. Imports supply all of the island's fossil-fuel requirements. Petroleum products, imported principally from the U.S.S.R., the United Kingdom, and the Netherlands, account for nearly two-thirds of annual energy consumption, with hydroelectric and geothermal power accounting for most of the remainder. As a result of the steady conversion of the fishing fleet to diesel power, coal and coke now account for little more than 1% of annual energy requirements.

a. Electric power

Iceland has an ample supply of electricity to meet its present needs. In 1971, production was about 1.6 billion kilowatt-hours (kw.-hr.), and, at the end of the year, installed capacity was 356,000 kilowatts (kw.). The per capita consumption of electricity was one of Europe's highest, about 7,300 kw.-hr. and 97% of the population has access to electricity. On average, hydroelectric production constitutes 95% of the annual output of electricity, while 73% of the total national capacity is hyroelectric and 27% is thermal (Figure 3).

Industry accounts for 51% of national consumption of electricity, 21% by the aluminum plant at Straumsvik, 19% by the fish-processing and other small industries, 8% by the fertilizer plant in Reykjavik, 2% by the cement plant in Akranes, and 1% by the diatomite plant near Myvatn lake, in the north. Other major consumers include households (20%), commerce and trade (8%), NATO Keflavik Airfield (6%), public services (2%), and agriculture (2%). The major consumption centers are Reykjavik, Straumsvik, and Akranes in the southwest and Akureyri in the north.

Four-fifths of the electric power capacity is owned jointly by the National Power Company and several municipal power enterprises. Powerplants solely owned by the National Power Company account for another 8% of the total capacity, and the remaining public capacity—about 5% of the total—is in small plants belonging to several municipal utility enterprises. The other 6% of total capacity is found in numerous small privately owned powerplants used mainly for emergencies.

In addition to being the largest public utility company in the country, the National Power Company is in charge of supervising the construction and operations of major hydroelectric powerplants and related transmission lines, which are generally built by foreign contractors. Equipment for constructing electric power generating and transmission facilities is imported, mainly from Denmark, Sweden, West Germany, the United Kingdom, and the United States.

Development of the electric power industry is supported by special government funds budgeted by the Energy Board of the National Energy Authority and made available through the Central Bank of Iceland. The government's budget for the electric power industry amounted to about US$2.6 million in 1972. In addition, a $15 million loan obtained by the Central Bank of Iceland from foreign financial institutions was to be used by the National Power Company for constructing hydroelectric power projects.

The economically exploitable waterpower potential is estimated at 35 billion kw.-hr. per year, but only about 5% of this total has been developed. In 1971, Iceland's hydroelectric powerplants, which had an aggregate capacity of 260,000 kw., produced 1,522 million kw.-hr. Development has been concentrated in the southwest, where the country's greatest waterpower potential and most significant industries are located. Over four-fifths of total hydroelectric installed capacity is in the southwest. Hydroelectric plants in this area include the Burfell (160,000 kw.), Irafoss (48,000 kw.), and Steingrimstoo (26,000 kw.) powerplants.

Iceland's geothermal resources are significant, having a potential capacity of about 1.5 billion kw.-hr. per year, but only a small fraction of this capacity is used to produce electricity. The 2,625-kw. Namafjall geothermal powerplant, the only such plant in operation, supplies electricity to the diatomite filter plant in the north.

Electricity, used by consumers as 3-phase 50-cycle 220/380-volt current, is transported from powerplants to consumption centers by several short transmission systems that are not interconnected. The densest grid is in the southwest and includes a 116-kilometer (km.) 220-kilovolt (kv.) transmission line from the Burfell powerplant to the Straumsvik aluminum plant, with an extension leading to the Reykjavik major substation at Geithals. Other lines having voltages ranging between 60 kv. and 11 kv. serve the area. Smaller grids serve the rest of the country with lines in the 66-kv. to 11-kv. range. Vestmannaeyjar island is connected to the southwestern system by a 12-km. 33-kv. submarine cable.

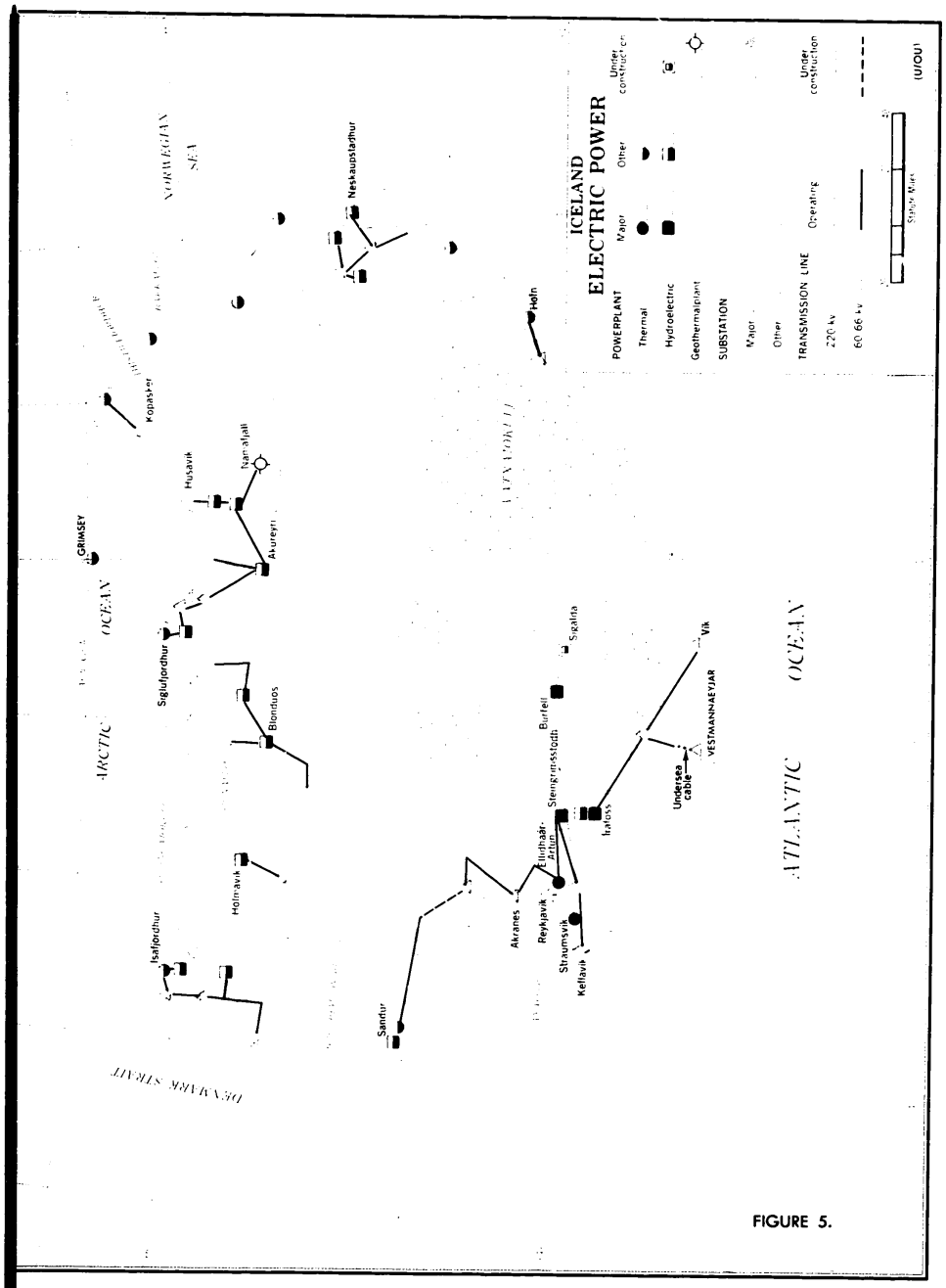


FIGURE 5.

Expansion plans call for continued development of hydroelectric capacity and the interconnection of the various transmission systems. Hydroelectric plants are to be constructed concurrently with new power-consuming industries. The new 350,000-kw. Sigalda powerplant east of Burfell, for example, is to be completed in 1975 when an addition to the Straumsvik aluminum reduction plant is ready for operation. By 1974, the Reykjavik and Akureyri transmission systems are to be linked, and in time all of the regional grids are to be interconnected.

b. Geothermal heating

Thermal springs provide most of Iceland's heating requirements at a cost to the consumer substantially below that of either fuel oil or coal. Nearly all the homes in the Reykjavik area have central heating systems fed with hot water or steam piped from hot artesian wells in the Reykir area or from local wells. The water temperature at wellhead ranges from 176° to 284° Fahrenheit, and at point of delivery averages about 167°. The thermal springs and wells also supply the heating requirements of the growing greenhouse industry and are used to assist open-air cultivation by heating the cold soil. The energy equivalent of the annual consumption of natural steam and hot water is over 1.6 billion kw.-hr.—roughly equal to the consumption of electricity and about 20% of total energy consumption. Increased exploitation of geothermal resources for heating is projected to offer annual savings of some 7 million tons of imported oil that would be needed by thermal steamplants.

3. Minerals and metals (U/OU)

Iceland has few known mineral resources. Only diatomite, a material used in the production of filters, is exploited in commercial quantities. The island does produce some building materials such as granite and related rock, gravel, sand, some clay suitable for brick manufacture, and kaolin and clay used in the production of ceramics.

4. Manufacturing (U/OU)

a. Export industries

(1) *Fish processing*—Iceland's most important industry, fish processing employs about 8% of the labor force—almost one-third of the manufacturing labor force—and accounts for the bulk of Iceland's exports. More than 95% of the annual fish catch is processed. Frozen and cured fish remain the major end products, but fish oil and meal have become increasingly important as the capelin catch has increased. Total sales of the fish-processing industry in 1970 were about US$115 million.

More than 90 freezing plants have been established in coastal towns serving the fishing fleet, primarily in the Reykjavik area. The plants are generally modern, are well equipped with filleting machines, and comply with the highest sanitary standards. In 1970 Iceland's freezing plants processed over 300,000 metric tons (gross weight) of fish, chiefly cod, pollack, haddock, and redfish. In 1971, export of frozen fish fillets, the most important single export commodity, were valued at US$58 million—more than one-third of total exports. The United States is Iceland's primary customer for frozen fish fillets.

Fish reduction has become the second most important branch of the fish-processing industry in terms of tonnage processed. Since much of the herring and capelin catch is unsuitable for filleting or curing, increases in the catches of these fish, especially capelin, have led to increased production of fish oil and meal, which are readily salable in world markets. In 1970, almost 200,000 metric tons of fish were reduced, and 17,000 metric tons of oil and 72,000 metric tons of meal were exported.

Fish-curing plants, producing wet and dry salted cod, stockfish, and salted herring, are typically small-scale enterprises found in all fishing ports. More than 135,000 metric tons (gross weight) of fish was cured in these plants in 1970. As Iceland's capabilities for freezing fish have increased, the curing has declined in relative importance.

Fish canning is a small but growing industry. Between 1963 and 1970, its output more than doubled in volume while increasing sixfold in value, to over US$2 million annually. Inflation accounts for part of the rise in value of output, but more important has been the upgrading of quality in the canned products. Since canning substantially enhances the export value of fish and other seafood products, the Icelandic Government is encouraging the building of canning facilities.

Favorable world market prices and prospects for foreign sales have encouraged substantial investments in the fish-processing industry. However, the industry's continued growth is threatened by an increasing shortage of labor. Because of this shortage, and the attendant high cost of labor, freezing plants have found it necessary to pack frozen fillets in bulk rather than in individual packages that would yield higher export proceeds.

(2) *Aluminum*—Iceland's second ranking export industry is aluminum production. The aluminum plant, built on the coast near Straumsvik by Swiss Aluminum Ltd., makes use of imported raw materials and inexpensive electric power from the Burfell hydroelectric project. Production at the Straumsvik plant surpassed 40,000 metric tons in 1971 and was expected to approach 50,000 metric tons in 1972. However, because of slack demand on world markets, exports of aluminum dropped from 33,500 metric tons in 1970 to 17,600 metric tons in 1971. As a result, Iceland's aluminum stocks increased greatly and amounted to over 30,000 metric tons at the end of 1971 and were expected to rise to nearly 50,000 tons at the end of 1972.

(3) *Diatomite*—The other major manufacturing industry producing for export is the diatomite plant at Myvtan—owned and operated as a joint venture of the Icelandic Government and the Johns-Manville Corporation of the United States. Completed in early 1968, the plant's production is expected to surpass 22,000 metric tons in 1972. Sales have grown steadily as the world market for industrial filters has expanded.

b. Domestically oriented industries

The small size of Iceland's home market has restricted the development of domestically oriented industries to small-scale production. These industries are dependent to a significant degree on imported raw materials and components. In many cases, moreover, they rely on tariffs for protection from more efficient foreign producers. Icelandic production of consumer goods other than fish products includes small quantities of clothing, especially oilskins and work clothes; woolen yarn and garments; tanned skins and leather goods such as shoes and gloves; baked food products; mineral water; candles; and soap.

Steel drums, wooden barrels, and packing cases for the fish-processing industry are manufactured in Iceland, and the country is self-sufficient in these goods. It is also self-sufficient in the production of cement and, in some years, has exported small amounts. The State Cement Plant, at Akranes, has an annual production capacity of over 120,000 metric tons, more than enough to meet Iceland's needs. Iceland also produces pipes, tiles, and roofing slates for use in domestic construction. Chemical production is concentrated in a fertilizer plant near Reykjavik. This plant is capable of producing 24,000 metric tons of ammonium nitrate annually. Iceland also produces some simple plastic products.

Refrigeration equipment is the only machinery produced in quantity. Domestic output supplies most of the needs of the refrigeration installations of the country's quick-freezing plants, although some of the more complex equipment is imported. Small shipbuilding and repair yards support the local fishing industry, doing nearly all repair work for the fishing fleet. Some fishing vessels are built in Iceland (26 in 1970); they are, for the most part, of less than 100 g.r.t.

Throughout the postwar period, construction activity has maintained a rapid pace. Both public and private expenditures on construction increased greatly. Government-initiated infrastructure projects included building roads, schools, and hospitals, and there was a surge of private residential construction. Major hydroelectric and industrial projects, as well as NATO infrastructure projects, acted to fuel the construction boom. Although some slackening has occurred, construction activity continues to engage about 11% of the labor force.

5. Domestic trade (U/OU)

Wholesale and retail trade is primarily privately owned. Trade in certain commodities—for example, tobacco, radios, liquor, fertilizer—is, however, subject to government monopoly. Many firms are members of cooperatives which play an important role in both foreign and domestic trade.

Marketing of farm produce is largely controlled by the numerous agricultural cooperatives, which in many cases act as both wholesalers and retailers. More than one-third of the retail distribution of foodstuffs is carried out by these cooperatives, much of it in modern self-service stores pioneered in Iceland by the Federation of Icelandic Cooperative Societies in the 1950's.

Much of the retailing of nonagricultural products is handled by small firms that have joined retailer cooperatives to gain the advantage of more economical bulk purchasing and to improve their positions vis-a-vis a growing number of highly competitive supermarkets and discount stores. Wholesalers of nonagricultural items are generally importers as well. These wholesalers have been pressing for a curtailment of the price controls and government monopolies and for lower tariffs.

Because of the concentration of Iceland's population in the Reykjavik area, most trade enterprises are located there also. About 80% to 90% of wholesale enterprises are in the Reykjavik area, as are an overwhelming proportion of the country's retail

establishments. Few foreign firms have branches in Iceland; instead, their business is conducted by Icelandic agents.

6. Tourism (U/OU)

Although still small, Iceland's tourist trade is making a growing contribution to the economy. The number of tourists visiting Iceland in 1971 was nearly 31,000, a 60% increase over 1967. Almost half of the tourists come from the United States.

A major beneficiary of the increasing tourist trade has been Iceland's rapidly growing airline, Loftleider. The privately owned airline, as a result of rising transatlantic passenger traffic, has significantly increased its activities and contributes substantially to the island's employment and foreign exchange receipts.

C. Economic policy and development (U/OU)

1. Governmental economic policies

In the tradition of the Scandanavian countries, the Icelandic Government exerts far-reaching influence over the economy. The postal, telephone, and telegraph systems are government owned and operated, as are most of the hydroelectric powerplants and other public utility installations. Additionally, the government maintains a number of sales monopolies—including those for tobacco, liquor, fertilizer, radios, and telecommunication equipment. The government also owns the central bank and the principal commercial banks. An extensive system of government subsidies supports the production and marketing of a wide range of goods, not only in agriculture but also in fisheries and industry; and the government manages a comprehensive program of social insurance and assistance. Special public investment funds finance a large share of investment outlays in the private sector of the economy.

a. Fiscal policy

Since the introduction of the stabilization program in 1960, the government has tried to balance its budget or run surpluses so as not to contribute to inflationary pressures. In 1967-69, action taken to offset a recession led to substantial deficits. Sharply higher revenues returned the budget to surplus in 1970. Iceland's budget for 1970, with major categories of revenue and expenditure, is shown in the following tabulation in millions of U.S. dollars: dollars:

Revenue:	
Direct taxation	19.6
Indirect taxation	89.0
Other	2.8
Total	111.4
Expenditure:	
Current outlays:	
Purchase of goods and services	35.5
Current transfers	42.0
Capital transactions:	
Gross fixed asset formation, public	9.3
Lending, net	−1.2
Capital transfers	19.8
Total	105.4
Surplus	6.0

b. Central government revenues

Iceland relies on indirect taxes for the bulk of government revenue. General import duties traditionally have been the most important source of revenue, although their share has been declining. Levied since 1963 on an *ad valorem* basis, general import duties were expected to provide more than 28% of total revenues in 1972 (Figure 6). The domestic sales tax has been the most rapidly growing source of revenue since

FIGURE 6. Central government revenues, by source (1972 budget) (U/OU)
(Millions of U.S. dollars)

	AMOUNT
Direct taxes:	
Taxes on income and wealth	21.4
Social security contributions	12.6
Total	34.1
Indirect taxes:	
General import duties	16.1
Special import duty on gasoline and tires	7.8
Excise duties	2.0
Sales tax	39.7
Payroll tax	7.9
Profits from sale of tobacco and alcoholic beverages	12.5
Stamp duties	1.8
General automobile tax	2.1
Tax on bank transactions	1.2
Other indirect taxes	4.7
Revenue from state enterprises	1.0
Miscellaneous	0.9
Total	128.0
Grand total	162.2

NOTE Figures may not add to totals because of rounding.

1960. Increases in the tax rate and rising national expenditures raised the expected sales tax collections to nearly 25% of total revenue in 1972. The share of direct taxes in the total is now higher than in the early 1960's, but still amounts to only about 21%. Conversion of the income tax system in 1967 to a pay-as-you-earn basis has increased the automatic stabilizing effect of income taxes on the economy.

c. Central government expenditures

Social welfare payments—government contributions to social security, pension programs, and public health—account for a large part of government expenditures. In the proposed 1972 budget, these categories account for 37% of all government expenditures (Figure 7). Expenditures on educational, cultural, and religious institutions account for the second largest budget allotment—19% of the total. Domestic and export subsidies, used largely to support the sale of agricultural products, make up another 15% of the total. Other large budget items cover transportation and communications and public administration and justice.

Of the total proposed 1972 budget outlays of US$159 million, only slightly over one-third comprise direct government expenditures. As indicated in the following tabulation, the extent to which Icelandic central government expenditures reached the marketplace indirectly—through transfers such as social welfare payments, subsidies, and capital transfers—is high compared with other Scandanavian countries:

	Percent of Total Central Government Expenditures			
	Iceland	Denmark	Norway	Finland
Total central government expenditures	*100*	*100*	*100*	*100*
Total transfers	*62*	*35*	*41*	*31*
Current transfers	*45*	*34*	*40*	*30*
Capital transfers	*17*	*1*	*1*	*1*
Total direct government purchases of goods and services	*38*	*65*	*59*	*69*
Public consumption	*31*	*50*	*46*	*45*
Public investment	*7*	*15*	*13*	*24*

Capital transfers are largely channeled through semiautonomous public investment funds. The three most important of these funds, in terms of value of loans extended, are the Fisheries Loan Fund, the Agricultural Loan Fund, and the Industrial Fund. Other investment funds include funds which extend loans for tourism, municipalities, and employment equalization.

FIGURE 7. Central government expenditures, by use (1972 budget) (U/OU)
(Millions of U.S. dollars)

	Amount
Administration and justice	13.8
Diplomatic services	1.8
Education, cultural and religious institutions	30.5
Public health	1.2
Social security	53.3
Pensions	2.0
Transportation and communication	17.2
Agriculture	8.4
Fisheries	3.5
Manufacturing industry	0.8
Electric power	2.4
Consumer subsidies	18.6
State Guarantee Fund	1.2
Other	1.1
Total	158.8

d. Wage and price controls

Following almost two decades of rapid inflation, the Icelandic Government in November 1970 instituted a general price freeze which was in effect until January 1972. The enabling legislation provided for a postponement of a cost-of-living wage adjustment from December 1970 to September 1971. It also raised family allowances and consumer subsidies, moves which somewhat reduced the level of the cost-of-living index. The price freeze held the Reykjavik cost-of-living index essentially unchanged throughout 1971, thus providing some breathing space for the government to give attention to longer term issues. Following the expiration of the price freeze, however, prices resumed their rapid increases, despite a continuing system of controls.

e. Banking system

Banking in Iceland dates from the late 19th century. The country's sparse population, coupled with little industrial activity, had fostered the development of a simple, highly self-sufficient economy in which barter was the main mode of exchange; a small amount of cash business was transacted in Danish currency. Although the National Bank of Iceland (*Landsbanki Islands*), established in 1885, and the Danish-owned Bank of Iceland, Ltd. (*Islandsbanki, h.f.*), established in 1904, facilitated the development of Icelandic fisheries and fish processing, banking did not assume major importance in the economy until after World War II.

Commercial banks do most of the banking business. They account for nearly 85% of all loans outstanding and for nearly 90% of demand deposits and over 77% of time deposits. The principal commercial banks are the government-owned National Bank of Iceland, the Agricultural Bank of Iceland (*Bunadarbanki Islands*), and the Fisheries Bank (*Utvegsbanki Islands*). These banks engage in all types of banking activities, although the latter two play special roles in financing, respectively, agriculture and the fishing and fish-processing industries. Three private joint-stock commercial banks have been organized in the postwar period: the Industrial Bank of Iceland (*Idnardarbanki Islands, h.f.*), which promotes the development and diversification of industry; and the Iceland Bank of Commerce (*Verzlunarbanki Islands*) and the Cooperative Bank (*Samvinnubanki Islands*), which act as bankers to Iceland's many cooperative organizations. As a result of both the rise in business activity and strong inflation, the value of loans outstanding rose by over 250% during the 1960's, and savings deposits increased by over 400% during the same period.

About 60 savings banks, most of which are small institutions providing savings deposit facilities and granting loans, primarily for local construction projects, serve the needs of the population in small towns and rural areas.

Supervision and control over the entire banking system is exercised by the government-owned Central Bank of Iceland (*Sedlabanki Islands*), until 1961 a department of the National Bank. As in other Western countries, the central bank formulates and executes monetary policy. The central bank is the sole bank of note issue, the rediscount institution for the entire banking system, and the treasury depository. Together with the Ministry of Commerce, it administers foreign exchange controls.

A primary objective of Icelandic monetary policy has been the containment of recurring inflationary pressures. However, the relatively liquid position of the commercial banking system during most of the postwar period—resulting from a large net inflow of foreign exchange and a rapid rise in demand and savings deposits—reduced the banks' dependence on central bank discount and credit facilities and so impaired the effectiveness of monetary controls.

2. Development

Iceland's prospects for broader economic development are limited by the paucity of natural resources—including labor—and the small domestic market. Nonetheless, the government is resolved to broaden the country's economic base and to strengthen its basic industries. Although Iceland has no formal economic plan (the first and only plan expired in 1966), it has several well-defined goals for its economy.

Foremost among these goals is diversification of the economy so as to reduce dependence on the inherently unstable fishing industry. In consonance with this goal, public investment expenditures have been directed to capital formation in manufacturing industries and in infrastructure projects, particularly hydroelectric power. Although Iceland is reluctant to accept foreign direct investment, the diatomite and aluminum plants demonstrate that this attitude is flexible where a benefit to the Icelandic economy is perceived.

Iceland's complex system of subsidies also acts to induce investment of private capital. Much of the investment induced by subsidies, however, tends to be in the fishing and agricultural sectors where labor productivity is relatively low. There is little likelihood that the subsidy structure will be substantially altered in the near future.

3. Manpower

a. Labor force and employment

The Icelandic labor force numbered over 85,000 persons out of a working-age population (ages 15-64) of about 120,000 in 1970. Those not included in the labor force are primarily persons unable or not desiring to work, mostly students and women with children. The labor force is well educated and quite mobile within Iceland. The high level of education enables workers to shift from one job to another fairly rapidly and smoothly.

A large part of the economically active population is employed in basic occupations. Over one-fourth of the labor force is employed in agriculture, fishing, or fish processing. About 16% of Iceland's employment is found in manufacturing, excluding fish processing. Construction provides jobs for 11% of the labor force, while the remainder of the labor force is found in various service occupations. The number employed, by economic sector, is tabulated below:

Agriculture	11,062
Fishing	5,145
Fish processing	6,860
Manufacturing	14,149
Construction	9,857
Electricity, gas, and water	600
Communications	7,546
Commerce	11,576
Other services	18,780
Total	85,575

With the total labor force growing at an average annual rate of about 2% in the 1970's, employment in fishing and agriculture is expected to remain constant or to decline while that in other sectors grows at annual rates of from 1% to 3%.

Except for recession periods—such as 1967-68, when unemployment soared to 12%—Iceland's labor market is generally tight. Unemployment was only 1.3% in 1970 and 0.7% in 1971, and the use of overtime has increased. The unemployment that remains—about 300 persons found largely in villages and towns in the northern part of Iceland—is of a regional and seasonal nature little affected by monetary and fiscal measures. During periods of recession there is some emigration of workers to Europe; conversely, many of these emigrants return as labor shortages develop at home during economic expansions.

b. Working conditions and wages

Wages and working conditions in Iceland are comparable to those in Western Europe, with the average yearly income of gainfully employed persons in 1970 being in excess of US$3,000. Although partially offset by rising prices, large wage increases dramatically raised the real earnings of Icelandic labor during the 1960's (Figure 8). Because overtime and supplementary part-time work are common, annual earnings have risen more rapidly than hourly wage rates. Approximately half of the total wage bill results from overtime earnings.

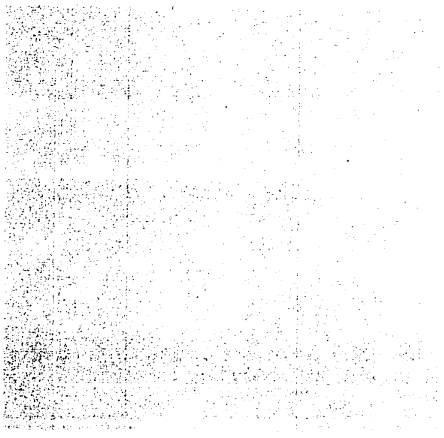


FIGURE 8. Indexes of hourly wage rates, annual earnings, and cost of living (U/OU)

A 1971 law shortened the standard workweek to 40 hours and provided for 4 weeks of paid vacation. These provisions cover all Icelandic workers except fishermen, who negotiate their own contracts with the fishing vessel owners. Under pressure from the unions, comprehensive job safety and child labor laws have been enacted. The official prohibition on child labor—15 years is the minimum age for employment in ships and factories, 18 years for certain hazardous and difficult occupations—is well enforced.

D. International economic relations (U/OU)

1. Foreign trade

Foreign trade is vital to Iceland's economy. With hydropower potential and grazing land the only major resources of its land, Iceland has had to rely on exploiting the bounty of the sea to achieve its relatively high level of economic development. Most of the output of the fish and fish-processing industry is exported, and the foreign exchange earnings enable Iceland to purchase a wide range of foodstuffs, raw materials, and manufactured goods essential to the prosperity and growth of the economy. Iceland's total trade turnover is equivalent to over half of the GNP, compared with about 45% for Norway and Denmark.

Imports provide virtually all of Iceland's requirements for machinery and transport equipment, solid and liquid fuels, and consumer durables, as well as a large share of the country's needs for nondurable consumer goods and foodstuffs. Manufactured goods typically comprise about 75% of imports; petroleum and petroleum products, 10%; foodstuffs and animal feeds, 10%; and miscellaneous raw materials, the remainder. Imports in 1971 included an unusually large (US$18 million) purchase of aircraft by Icelandic Airlines. Other major imports were as follows (in millions of U.S. dollars):

Petroleum and petroleum products	17.0
Transport equipment	15.3
Foodstuffs	10.4
Ships	7.7
Aluminum oxide	7.5
Wood and wood products	6.4
Animal feed	5.6

Although declining in relative importance, the exports of fish and fish products remain the chief source of foreign exchange earnings, accounting for 84% of total exports in 1971. Manufactured goods accounted for another 12% of the total, and small amounts of agricultural commodities were exported.

Principal exports in 1971 are listed below (in millions of U.S. dollars):

Fish and fish products	125.6
Of which:	
Frozen fish fillets	57.7
Salted fish	22.8
Fish meal	12.4
Iced fish	11.6
Aluminum and alloys	10.1
Diatomite	1.4
Sheepskins	5.1
Mutton and lamb	1.7

Except in recession years, Icelanders' desires for a higher standard of living have expanded imports and produced trade deficits. These deficits, however, have been small, because exports—buoyed in most years by good fish catches and sales—have generally kept pace. Iceland's demand for imports can be expected to grow further, but its capacity to earn foreign exchange may be limited by slower and less regular growth of the fishing industry's exports. Iceland's future ability to expand imports thus depends to an important degree upon its ability to diversify experts.

During the 1960's, the geographical distribution of Iceland's foreign trade underwent several significant changes. Import and export trade with the U.S.S.R. and East European countries fell off substantially, both in absolute and relative terms. These countries' share of Iceland's total foreign trade fell from nearly 25% in 1960 to about 11% in 1971 (Figure 9). During the same period, Iceland more than doubled the share of its exports sold to the United States, from 14% in 1960 to 37% in 1971, and raised slightly the share going to the European Communities (EC). On the import side, the European Free Trade Association (EFTA) and EC countries gained sales in Iceland at the expense of the U.S.S.R., the East European countries, and the United States.

In order of importance, Iceland's three leading export customers are the United States, the United Kingdom, and West Germany. West Germany is Iceland's leading supplier of machinery, transport equipment, iron and steel, and textile products. The United States ranks second, supplying a similar range of products. The tabulation below summarizes Iceland's trade with its principal partners in 1971, in millions of U.S. dollars:

	Exports	Imports
United States	54.89	32.25
United Kingdom	19.61	29.67
West Germany	8.77	33.21
Denmark	9.65	21.28
U.S.S.R.	12.22	14.87

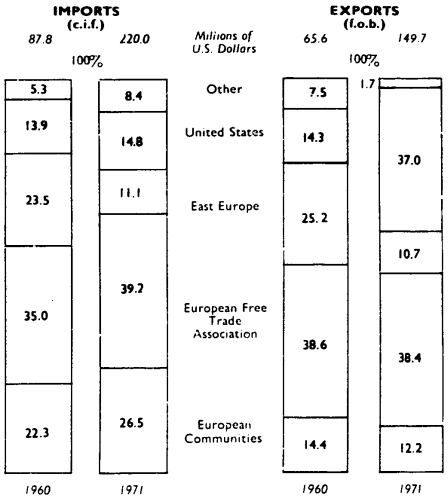


FIGURE 9. Geographic distribution of foreign trade (U/OU)

2. Foreign trade policy

Iceland followed highly restrictive foreign trade policies through the early postwar period, employing tariffs, import quotas, export subsidies, and exchange controls in an effort to protect domestic producers and conserve dwindling foreign exchange reserves. Following the adoption of the economic stabilization program and the attendant devaluation of the currency in 1960, however, an easing of protectionist trade policies began. This process was speeded by Iceland's entrance into EFTA in 1970.

The most significant progress has been made in reducing the quantitative restrictions on imports that had been applied to counteract domestic inflation and to gain reciprocal concessions in foreign markets. As a result of the progressive elimination of import quotas between 1960 and 1966, the share of goods not limited by global quotas or governed by bilateral barter agreement increased from 50% to 86% of total imports. Most of the remaining quantitative restrictions—primarily on petroleum products and certain types of wood and glass—are maintained to insure bargaining leverage in negotiations with state trading countries with which Iceland has bilateral trade and payments agreements. Some quantitative restrictions are retained on imports of certain foodstuffs to protect domestic producers.

Iceland has also reduced significantly its tariff rates, beginning with selective cuts in 1963. In particular, duties on machinery have been reduced to encourage industrial mechanization. In addition, as part of the agreement under which Iceland entered EFTA, a cut of 30% in tariff rates was made in 1970. Nevertheless, on some items tariffs remain high. Passenger cars have a scheduled tariff rate of 90%; radios and TV sets, 80%; wool and synthetic fibers, 65%; and trucks, 40%. While some of these remaining tariffs are of a protective nature, a more common objective is to generate revenue for the central government, which obtains one-third of its revenues from tariff receipts.

The predominant share of Iceland's foreign trade is conducted on a multilateral basis, with payments effected in convertible currencies. Bilateral trade and payments agreements, complete with clearing accounts and permissible swing credits, are still maintained, however, with the U.S.S.R., Czechoslovakia, East Germany, Hungary, Poland, Romania, and Brazil.

The entrance of three EFTA members (the United Kingdom, Denmark, and Ireland) into the EC poses problems for Iceland's future trade policy. Although full EC membership in the near future is not likely, Iceland is seeking arrangements with the enlarged EC similar to those it currently has within EFTA. It desires duty-free entry for its goods into the EC while maintaining substantial control over what EC goods are allowed duty-free into Iceland.

3. Balance of payments

In the early postwar period, persistent and sizable deficits quickly exhausted the large foreign exchange reserves accumulated during World War II and created difficulties that inhibited economic growth. During the 1950's the government sought to deal with its balance-of-payments problem by instituting stringent trade and currency controls. These, however, caused added distortions in the economy and aggravated inflationary pressures. Despite surcharges on imports and high taxes on purchases of foreign exchange, imports continued to grow, financed in part by extensive borrowing from abroad. At the same time, generous subsidies failed to increase exports significantly.

The newly elected government introduced a stabilization program in 1960 to eliminate excess demand, correct the distortions in the economy, and balance the external accounts. Principal elements in this program—most of which remain in force—were the replacement of multiple exchange rates by a single uniform rate that reduced the value of the krona (kr.) from 16.29 to 38.00 per U.S. dollar, liberalization of trade and payments restrictions, the adoption of a balanced budget, and strict limitation on the expansion of bank credit. Subsequently, the value of the krona has been reduced to 98.56 kr. per U.S. dollar.

As a result of these measures and of improving world market conditions for Iceland's fish-product exports, the economy's external balance has strengthened considerably since the early 1960's—with the notable exception of 1967 and 1968, when poor fish catches drastically reduced exports and led to large trade deficits (Figure 10). Balance-of-payments surpluses have brought about an increase in foreign reserves from US$3 million in 1960 to $71 million in mid-1972. The latter amount is equivalent to about 5 months' imports.

Iceland generally obtains a small surplus in its invisible accounts. Receipts from the U.S. forces stationed at Keflavik provide the bulk of the invisibles

FIGURE 10. Balance of payments (U OU)
(Millions of U.S. dollars)

	1967	1968	1969	1970
Overall balance	25.0	11.8	19.2	13.6
Current balance	58.8	45.1	3.9	7.9
Trade balance	53.2	46.0	0.0	2.6
Military receipts	15.2	10.9	11.3	11.1
Other services	10.1	0.9	0.1	3.5
Net interest payments	1.3	6.2	6.7	5.3
Transfer payments	1.1	0.9	0.8	0.3
Capital balance	28.8	30.3	15.3	5.7
Amortization of debt	11.9	16.7	22.5	20.0
Public borrowing	13.0	29.1	23.2	1.5
Private borrowing and direct investment	21.2	19.1	17.2	10.0
Other capital	8.1	2.3	1.3	10.1
Net errors and ommissions	1.1	1.1	0.8	1.1

surplus—adding about US$10 million annually to Iceland's foreign exchange receipts.

The net inflow of capital has been positive but variable, as inflows of public borrowings, private borrowings, and private equity investment have exceeded debt amortization and other capital outflows. In most years the capital surplus has been modest; however, the surpluses of 1967-69 were fairly substantial as a result of capital inflows from the International Bank for Reconstruction and Development to finance the Burfell power project and private capital inflows for the aluminum smelter. These large inflows fortuitously coincided with the fall in export earnings resulting from poor fish catches, thus preventing a worse outcome for Iceland's balance of payments in those years.

Glossary (U/OU)

ICELANDIC	ENGLISH
Bunadarbanki Islands	Agricultural Bank of Iceland
Islandsbanki, h.f.	Bank of Iceland, Ltd.
Sedlabanki Islands	Central Bank of Iceland
Samvinnubanki Islands	Cooperative Bank
Utvegsbanki Islands	Fisheries Bank
Verzlunarbanki Islands	Iceland Bank of Commerce
Idnadarbanki Islands, h.f.	Industrial Bank of Iceland
Landsbanki Islands	National Bank of Iceland
Orkustofnun	National Energy Authority
Landsvirkjun	National Power Company
Rannsoknarad	National Research Council
Althing	Parliament