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DEVELOPMENT OF EXPORT ORIENTED
INDUSTRIES IN ICELAND

Final Report

W. J. George Dziucielowski
## Contents

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>3</td>
</tr>
<tr>
<td>I. Capital market in Iceland</td>
<td>4</td>
</tr>
<tr>
<td>II. Intercompany co-operation</td>
<td>7</td>
</tr>
<tr>
<td>III. Wood import and eventual re-export</td>
<td>9</td>
</tr>
<tr>
<td>IV. Export opportunities in various industries</td>
<td>13</td>
</tr>
</tbody>
</table>
An expert in industrial export policies, W. Y. George Dziecielewski, was appointed by the United Nations Industrial Development Organization (UNIDO) to participate in a mission to Italy in connexion with the preparation of a long-term development plan for manufacturing industry. His mission lasted approximately three and a half months, from 31 August 1972 to 27 October 1972 and from 27 November 1972 to 12 January 1973. His contribution to the development plan and his conclusions are outlined in chapters I-IV of this report. He also summarized the reports of other experts, incorporated their recommendations into the draft of the development plan and edited it.
I. CAPITAL MARKET IN ICELAND

When speaking with Icelandic businessmen one gains the impression that one of their major preoccupations is the lack of liquid assets. Both investment capital and working capital seem to be in short supply in manufacturing industry, and credit, when available, is expensive. This does not mean that there are no funds available in Iceland, but merely indicates that, for a variety of reasons, manufacturing industry has not been able to attract sufficient quantities of the available capital resources.

The need for capital

The growth of manufacturing industry is still a very new phenomenon in the Icelandic economy. Industry has grown as a result of tariff protection on an import-substitution basis and is becoming an increasingly important sector. Most companies, however, are still very small family-owned businesses or partnerships, whose ability to raise money is restricted by the credit worthiness of the owners, rather than that of the firm.

The opportunities for self-finance are limited by the family or partnership's savings and their income. Since the bulk of savings are usually used up in the establishment of the enterprise, only income from profits remains as a source for self-finance. Profits however, in the majority of cases, are not high enough to enable the entrepreneur to finance re-equipment, modernization or expansion.

The availability of capital

The level of private and public savings is quite high and would be more than sufficient to cover the needs for credit finance in manufacturing industry. Manufacturers have, however, to compete for these resources against all other credit users and especially the traditional industries, i.e. agriculture and fishing.

The fishing industry and agriculture, because of their long-standing importance in the economy, have traditionally received preferential treatment, both from the government and from financial institutions. The bulk of available credit resources has therefore been allocated to these sectors on favourable terms. Manufacturing industry on the other hand has not been supported to the same extent.
Although there has been a marked improvement in recent years and particularly since 1969, traditional attitudes persist in government, financial institutions and the public at large, which still tend to view the development of industry with rather mixed feelings. The terms and cost of credit for manufacturing industry are even today higher than for traditional industries. An example of this is the variable discount rate, which for agricultural and fishery products is 6 per cent rediscouned at 5\% per cent, whereas in the case of manufactured products it is at 7\% per cent to 9\% per cent. Rediscouting for manufacturing industries was introduced in the autumn of 1972 for the first time.

Some 17 investment credit funds are in existence. The majority of these were established to canalize capital to the traditional industries and only 1 deals with the needs of manufacturers. An additional source of credit is the Nordic Fund, established in 1974. Although capital is available from this fund, few Icelandic entrepreneurs can benefit from it, as it is primarily aimed at the establishment of new enterprises rather than the improvement of existing firms. Furthermore, the minimum size of loan, about half a million United States dollars, is well in excess of what most Icelandic businessmen need or can justify in terms of viable projects. The banking system is therefore the chief supplier of credit to manufacturing establishments. Its loans are expensive, but not prohibitive. A far more serious factor that limits the availability of capital to individual manufacturers is the banks' inability to judge the credit-worthiness of the enterprise. Manufacturers as a group are reluctant to disclose their accounts, even to the banks, as a result of which their ability to borrow is restricted.

This attitude of secrecy, so common among small family businesses in all countries, is perhaps the main reason why no stock exchange exists in Iceland. Floating shares would, of course, be a cheap way of obtaining additional capital, but since this implies accountability to shareholders, the disclosure of accounts and a loss of control (even if only partial), few companies are interested in this type of development. The result is that, although the Central Bank has had the authority to organize a stock exchange for several years, no action has so far been taken.

The influence of inflation

The persistence of a fairly high rate of inflation, around 12 per cent per annum, has also influenced adversely the availability of capital. Rapidly rising manufacturing costs have put increasing pressures on limited resources of working capital, with the result that many manufacturers are no longer able to exist without borrowing. The existing price freeze, introduced with the aim of containing inflation, has, of course, put even greater strains on the manufacturer's ability to meet his day-to-day commitments from his own resources.
Inflation has also helped to develop practices that tend to limit even further liquid assets. Hedging against inflation, manufacturers and the community at large tend to overstock, invest in housing, furniture, office space etc., keeping liquid assets to a minimum.

Conclusions

Although there is no general lack of capital resources in Iceland, manufacturing industry still finds it difficult to attain access to sufficient funds to cover its short- and long-term needs.

Part of these difficulties stems from traditional attitudes, but industry itself is also partly responsible for its plight.

The disinclination to disclose accounts, justify proposed expenditures and provide financial institutions with the necessary background on which loan applications are assessed, limits the ability to borrow in many cases.

The Government and financial institutions are only now beginning to provide adequate facilities to finance the development of manufacturing industry and still display a marked preference in favour of traditional industries.

The opportunities for self-finance are small and are further restricted by the owners' preoccupation to retain secrecy, fear of losing control etc.

Inflation and controls have tended to restrict the already inadequate amounts of working capital by encouraging the spread of practices designed as hedges against inflation.

Finally, it can be stated that the capital market is only beginning to recognise the increasingly important role of manufacturing industry within the economy. This realisation will undoubtedly bring the required changes in attitudes, procedures and priorities in the next few years which in due course will enable industry to finance its short- and long-term capital requirements on a more competitive basis than hitherto.
The very small average size of Icelandic firms and their large numbers within each industrial sector affect adversely their competitive position in both the Icelandic and overseas markets through a dissipation of manufacturing and marketing efforts. The classic long-term solution to this problem is the encouragement of mergers and amalgamations. This solution, however, can only become effective in the long term, and in any case, is usually accompanied by social consequences which, in Iceland, may be unacceptable.

An alternative solution exists in the raising of efficiency of an industrial sector through intercompany co-operation. In no single small company can afford the necessary human and capital resources to effectively design, manufacture, advertise, package and market its products, especially in export markets, co-operation in these fields can prove beneficial to individual companies and the sector as a whole.

There are no hard and fast rules as to the best form or degree of intercompany co-operation as these can vary with each industry or product group. Experience in other countries has shown, however, that considerable benefits can accrue to enterprises employing this system. What all companies need access to the following services to improve their efficiency: production planning, product design, quality control, advice on raw material purchase, product costing and pricing, technical services, financial and management consultancy and marketing know-how. These can be obtained at a far lower cost to each manufacturer on a co-operative basis.

An example of intercompany co-operation already exists in Iceland in the knitwear industry. As a result of a large order for knitted woollen ladies' coats from the United States of America, which no single manufacturer could supply due to their restricted output capacity, a joint effort was initiated. As a result of this the Iceland Import in New York, in co-operation with Alafoss, has sold some 40,000 coats in the United States.

In this case, Alafoss acted as the co-ordinator between the knitting factories, the sewing firms and as their purchasing centre. Alafoss bought the coats from the makers at a fixed price and sold them to Iceland Import, New York. Iceland Import, through its representative in Reykjavik, controlled the quality at its own cost prior to shipment to the United States.
Alafoe also provided the raw material, i.e. yarn, accessories etc., at a 5 per cent mark-up, guaranteed quality and, when necessary, provided credit of up to 3 months. The coats' designers, Dynoja Limited, received a 2.5 per cent commission.

In the above example, design, quality control, raw-material supply, short-term finance, costing, pricing and marketing have all been taken care of, leaving individual knitwear factories with only the task of production. Similar schemes suitably modified to suit other industries could also prove to be effective, provided the will to co-operate exists.

The main disadvantage of intercompany co-operation is that the small manufacturers are controlled by a larger one, i.e. Alafoe, and thus lose some of their independence. Such loss, however, is only illusory since, without co-operation they may remain fully independent, but bankrupt. This order of coats would not have been delivered if a co-operative effort had not materialised.
The demand for wood in Western Europe is increasing and traditional suppliers are experiencing difficulties in supplying this demand. The distances from forest to user are increasing and transport costs mount as trees are felled in inaccessible areas. Northern USSR has vast forest resources but suffers from ice-blocked harbours eight to nine months per year, and can therefore only export a portion of its potential as buyers are unwilling to stock a one-year supply.

Iceland with its ice-free harbours, geothermal resources for drying and its position in the North Atlantic is an ideal staging port for this wood. Large quantities of logs could be shipped to Iceland during the summer from Murmansk and could be stored, dried, cut and re-exported to Western Europe during the closed season of Arctic ports.

The existing system

The non-existence of indigenous forests with commercially exploitable timber resources has forced Icelandic wood-using industries, i.e. construction, furniture and fixtures, to rely on imports of this essential raw material. In the absence of rational purchasing policies, however, wood and wood products are imported at prices that are considerably higher than those prevailing on international markets. Icelandic wood-using industries are thus placed at a competitive disadvantage with respect to their raw-material costs that can account for as much as 42 per cent of total cost as, for example, in the furniture industry.

Several factors contribute to this unfavourable situation; foremost among these is the fragmentary structure of the wood-using industries in Iceland, e.g. the furniture industry, including fixtures, consists of some 300 separate firms. The vast majority of these firms are very small, one-man businesses. A large proportion of them import their own wood supplies. The resulting small orders deprive Icelandic importers of all bargaining power and usually restrict their sources to traditional suppliers, who, in many cases, are not the cheapest. Since the purchasing of raw materials is a highly specialised function requiring specialised knowledge and skill to obtain optimum prices, it is not surprising that the prevailing ad-hoc system cannot achieve these results.
A large factor that perpetuates this situation is the existing system of price controls. This system was introduced as a means of limiting mark-ups on imported raw materials thereby restricting price rises. In practice, however, the effect of these controls has been the opposite, especially in the case of wood imported by timber merchants. Since the mark-up is pegged at 15 per cent there is an inducement to buy at the highest feasible price thereby maintaining profit per shipment. This is the main reason why 75 per cent of furniture manufacturers persist in the direct import of uneconomical quantities of timber for their own use, despite the fact that this ties up considerable amounts of their own scarce capital and management resources.

Ireland's adherence to the European Economic Community (EEC) will undoubtedly remove the existing tariff protection that wood-based industries enjoy in the Irish market. All opportunities to reduce manufacturing costs must therefore be taken to retain or create a competitive position for Irish products. The introduction of a more rational, efficient and above all specialized wood-purchasing system would be an invaluable aid to the lowering of manufacturing costs. The need for the establishment of a specialized wood-import centre is therefore quite apparent.

The wood-import centre

The primary function of such a centre would be to pool the demand for wood imports and provide the specialized skills required to obtain rational and efficient low-cost purchasing. This buying with its accompanying bargaining advantages would replace the present small-lot ordering. This would also result in reduced shipping and handling costs. Buying at source instead of from middlemen would further reduce costs.

Apart from central, specialized buying facilities, the centre could also provide storage, drying and eventually pre-processing such as saw-milling, surface heat-treating etc. Once sawing, cutting and preparing facilities are established, sawdust and chips would become available for the manufacturing of chipboard. Thus the centre would not only provide an efficient centralized buying agency but also contribute to the establishment of new industrial facilities, which offer new employment opportunities and save foreign exchange.

The organization of a wood-import centre could take one of several forms:

(a) Existing timber importers could pool their resources and thereby create a central buying organization. There is, however, no incentive to do so under the existing system of price controls.

(b) An association of wood-using manufacturers could establish the centre. This would ensure cheaper wood imports but would need a considerable amount of goodwill and co-operation between its members. The necessary capital to finance the venture may also be difficult to raise.
The Government could establish the centre, and would have the advantage of access to capital but entails the danger that the centre may become a government administrative practice, while the efficiency of the centre.

The best solution probably lies in a combination of private initiative with government involvement and active support. The establishment of the centre is envisaged in three phases.

In phase one, the centre would work as a depot to stock and provide storage facilities to enable it to re-sell sawn timber (barrels, floorboards, and furniture). The capital required for this purpose is estimated to be about $2 million.

During this phase, the centre would be in direct competition with existing merchants (merchants or manufacturers) and would have to prove itself able to obtain cheaper raw materials. It should be able to attain a 5 percent share of total wood imports within one year of its establishment and would therefore require an indoor storage area of some 3,500 m². The capital required for office facilities, establishment area, storage and materials-handling equipment is estimated to be about $2 million.

In phase two, the centre's activities would be expanded through the establishment of a saw-mill. Wood in the round could now be imported and the centre would assume that the centre accounts for 8 percent of total wood imports at this stage, indoor storage space would have to be augmented to 1,000 m² and 3,500 m² of outdoor storage space provided. Equipment for sawing, cutting, drilling and furnishing timber must be installed. The bulk of the capital requirement for this expansion would be financed from the centre's own resources.

In phase three, the centre develops into a full-fledged service centre for the wood-working industries in Iceland. The centre would perform all the more difficult tasks such as wood curing, drying, surface heat-treatment etc. Thus it gives Icelandic manufacturers access to advanced equipment, the purchase of which individually, they would be unable to justify in economic terms. The ultimate aim of the Centre should be to strike a balance which will give the optimum division of work between manufacturers and the Centre.

**Conclusions**

The existing highly inefficient system of imports indicates the need for a wood import centre. The benefits arising from the establishment of such a Centre far outweigh the moderate capital requirements. These include:

- Lower priced raw-material supply to user industries thereby strengthening the competitive position of these industries
- Foreign exchange savings as a result of cheaper supply and lower shipping and handling charges
- The creation of 60 to 80 new jobs
The provision of storage and processing facilities to customers thereby releasing capital in the user industries currently tied up in raw-material stocks and storage and improving their often critical working capital position.

With the nature of the capital position of the user industries, government help in the establishment of the centre will be required in the following fields:

- Provision of a suitably located site with easy access to harbour, power facilities and near to the majority of potential customers.
- Provision of electrical and re-thermal energy at favourable prices.
- Provision of finance during the period of establishment through direct grant or government-guaranteed loan facilities.
- Possibility of providing government-owned buildings, e.g. unused barrel factories, as storage sheds.

The saw-mill and cutting facilities of the centre would produce 3,000 m$^3$ of good-quality sawdust and wood shavings. Another 1,000 m$^3$ could be collected from the wood-working and building industries; 30,000 m$^3$ could be made available from sawing of all logs for domestic use in the construction industry. This gives a total of nearly 40,000 m$^3$ of wood waste available for use in the manufacture of chipboard, particle board etc.
IV. EXPORT OPPORTUNITIES IN THE METALLIC INDUSTRY

Metal Working Industry

Size and structure

The total number of firms in the metal working sector in which it are shipyards. The majority of these firms are small and situated in fishing ship service activities, i.e. ship repair, marine ware, marine servicing and maintenance, etc. Only a few produce items that are marketable on a large scale.

The total number of war years only put up this industry to its present level. This number has increased substantially however, as a result of increasing the opportunities created by growing demand in recent years.

The total output of the sector is an estimated 500-800 man-years per man-year is low e.g. 1Krone, etc. in 1975.

If one discount shipyards, ship repair, marine ware and service workshops, any some 300 to 400 man-years are currently engaged in the production of marketable metal products. These include: ventilation fans, radiators, heat poles, hydraulic winches, steel doors, nails, facing coat, electric panels, stoves, freezing plant equipment, prefabricated structural steel and structures, etc., and pipe fittings and nozzles.

There have been no significant exports from this sector, except in a few isolated instances on a trial basis.

Competitive position

Price. The prices of locally produced metal products have achieved varying degrees of competitive power compared to imported equivalents. As a general rule, prices are competitive in the home market but profitability is low due to costly raw materials, high labour costs, low productivity and jobbing shop practices which ignore specialization, cost control and planning.

Quality. The quality of individual items is high but the lack of strict adherence to standards results in the manufacture of many items in batches that do not conform to tolerance limits.
A revival of milk farming will add to the new material available to the organism and a variety of other industries may be developed. A program of industrial development in the area is recommended. Special emphasis is placed on the development of the dairy industry. The area is well suited for the production of quality milk and dairy products. The potential exists for the development of a thriving dairy industry which would provide a substantial source of income for the local community.

The development of the dairy industry is dependent on a variety of factors including the availability of suitable land, the presence of ample water resources, and the existence of a reliable market. The area is well endowed with these resources, and the market for dairy products is expanding rapidly. The implementation of a comprehensive plan for the development of the dairy industry could result in significant economic benefits for the local community. A detailed study of the potential benefits of the dairy industry and a feasibility analysis of the proposed development are recommended.
The potential for increasing the export market in leather and related specialties can be intensified. The extent to which export expansion can proceed will be determined by the raw-material supply and productivity, especially in the leather-goods sector. Local raw materials can be augmented through imports. A large amount of otherwise only partially exploited leather products is available for development.

Leather gift articles such as belts, leather-bound photo graph and stamp albums, wallets, purses, handbags and travel goods give new scope for production. The demand for these products has been expanding rapidly all over the world and good-quality products of distinctive design would find a ready market. The main advantage
of the bad press of the USA towards Cuba also demonstrate the fact that they
are prepared to suffer for the sake of Cuban interests. The United
States, for example, has been sending military aid to Central
American countries, but it has been using this aid to undermine the
Cuban Revolution. The United States has also been supporting
Cuban refugees who have been exiled by the Cuban government.

The product of the Cuban economy is very diverse, and it is
primarily composed of manufactured goods. The main manufacturing
products are textiles, foodstuffs, and tobacco. The agricultural sector is
also important, with the production of sugar and coffee being
prominent. The Cuban economy is heavily dependent on
international trade, with exports mainly consisting of coffee, sugar,
and tobacco.

The balance of trade with the United States is significant. The Cuban
exports to the United States are primarily sugar and tobacco, while
American imports include textiles and automobiles.

The competitive position of Cuban products in the United States is
effective. The main products exported to the United States are
Cuban products and Cuban manufactured goods. The main products
exported to the United States are coffee, sugar, tobacco, and
textiles. The main products imported from the United States are
clothing, machinery, and foodstuffs.

Competitive position

Despite the existence of protective tariffs and quotas, Cuban
products are competitive in price. These factors are also
Cuban products are competitive in price. These factors are also
The quality of Cuban products is acceptable.
Delivering, with the utmost promptness, all orders which are acceptable.


text continues...

...and its price, what part are engaged in the furniture manufacturing industries, and what part are engaged in very many other industries. The only part of the industry which has any importance part of the industry.

It should be noted that the products manufactured in Ireland are for the Irish market rather than for export markets.

Competitive Prices

Prices. Raw materials which are not imported are sold at competitive prices and thus raise the cost of the final product. Since Ireland intended to limit mark-ups on imported raw materials and prevent price wars, this has the opposite effect of discriminating against rational purchasing policies. It is not more profitable for the importer to buy high-priced raw materials well above market price rather than to purchase at the lowest cost. The more, the furniture manufacturer, in the other hand, finds himself at an automatic disadvantage. It must be proportioned both in home and export markets to the average material price of the home market and the export market.

Sadly, the best Irish furniture compares favorably with imported products in quality. Most local products, however, cannot reach this high standard.
Introduction

This industry has a very limited market and the prospects for further expansion could be said to be very limited. To achieve any significant increase in the number of enterprises and a corresponding increase in the overall production of these small manufacturing units, the existing regulatory structure would have to improve. This is true especially for this industry where the demand for plastic products is required. As an import-substituting industry, they have to continue to supply a highly competitive market.

Size and Structure

Small firms are not considered as manufacturers of plastic products from imported raw materials. The PLV value, therefore, is not large. The size and type are very small with a heterogeneous pattern.

Although the firms are small, even if the PLV value is low, it is one of the major exports. The majority of firms have an output of up to 100 per cent of available output.

The nature of business and its potential is limited.

The nature of production of plastic products is highly variable and varies from import requirements for this output. The products are used in the home and a few for export. Existing products include containers and glass bottles, bottles, screw caps, electrical wire installations, milk bottles, plastic bags, plastic containers, flat etc.

The direct export of plastic products is quite a small, but packaging material is a large item, the industry being a major value addition to the high-processing industry.

Competitive Analysis

Price: The industry has a market that is not that as market at acceptable prices but this position would alter if the current 15 per cent tariff was lowered. The 5 per cent import duty on raw materials, the duties on imported production equipment and the additional raw materials transport costs make Inlandic plastic products non-competitive in foreign markets.

Quality: The overall quality of products is acceptable in the home market but is often lacking in competitive terms.
Delays in the market, as well as the need to meet new market demand, led to increased competitive pressures. However, there were also some cost reductions over time.

Export possibilities

Existing production is a significant share of the total output of the industry, with some manufacturers exporting directly. The export market is not always large, and the productive potential of the industry itself, coupled with export limitations, makes the export market relatively small.

The export potential and strategy is limited, and the domestic market is more important. The industry is relatively small, and its products are not highly specialized.

Size and structure

This industry is small in terms of its size, and most of its manufacturers have relatively small production capacity. The industry is not very competitive, and manufacturers are often small and somewhat fragmented.

Total output was shown to be small, and the industry was primarily domestic. The product range is limited, and the industry produces mainly for domestic consumption, with a small export market.

Competitive position

Price. Due to the high quality and craftsmanship, the products are highly competitive and maintain a premium price through uniqueness.

Quality. The quality is excellent, with durability and design.

Capacity. The capacity installed is well below demand and therefore delivery problems for large orders could arise.

Export possibilities

These products are already exported both directly and indirectly, and the potential demand is unlimited in the foreseeable future. The rate of expansion will depend on the ability to supply this latent demand. The main markets are Europe, Asia, and North America.
Special Report

Recent reports have indicated that the current high prices and
high tariffs on imported goods are causing a significant
impact on the domestic industry.

MARKET TRENDS

Imports have increased due to the high tariffs, which
have resulted in higher prices for domestic consumers. This
has led to a decrease in local production.

Government response

The government has announced plans to reduce tariffs and
implement import controls to stabilize prices and
support local industries.

Industry perspective

Domestic producers are optimistic about the prospects for
growth and development in the industry with reduced tariffs.