



No experiments, monumental disasters: Why it took a thousand years to develop a specialized fishing industry in Iceland

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Abstract

Iceland has been renowned for its rich fisheries since the Middle Ages, attracting fishing fleets from various European countries. Yet the institutions of premodern Iceland permitted ocean fishing only as a part-time activity for farmers and trapped the country in abject poverty until late in the 19th century. Landed interests, who feared competition in the labour market, tied labor to the land. The domestic constraint, which would not have sufficed in an open economy, was complemented by the Danish colonial policy of isolation and monopoly trade. A vigorous fishing industry emerged with the introduction of free trade.

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That we are somehow more immune from the moral corruption and wretchedness of the sailors on decked vessels than we were from that of other fishermen, is against the nature of things.

(Sunnan-Pósturinn [Icelandic journal] October, 1836. Cited in Hálfðanarson, 1991, p.148) *Of Yseland to wryte is lytile nede Save of Stokfische...* (The Libelle of Englyshe Polycye, 1436, Cited in Cutting, 1955, p.126)

1. Introduction

The present study reflects on the equilibrium trap that held the Icelandic economy at low or even declining levels of income and technology from the Middle Ages until the

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19th century. From a long-run perspective, economic stagnation has political and social roots and reveals failures of cooperation, coordination and organization. Pathological institutions often are the result of a human propensity to make great experiments which generate monumental failures because of the perpetrators' unrealistic assumptions concerning knowledge, information, and incentives (Ostrom, 1993). In these social experiments, the central authority frequently overestimates its ability to restructure, monitor, and enforce. However, long-run economic failures also may reflect an inability to experiment at all—a social paralysis where institutions thwart economic progress and trap communities at levels of low income.

The justification for studying failed experiments and equilibrium traps is the need to better understand a central theme of economic history: poverty amidst plenty or the curious inability of social group to take advantage of apparent economic opportunities (North, 1990). The economic history of Iceland from the late Middle Ages until the 19th century is a story of stagnation and of virtually no experiments with the country's industrial organization. It is a story of a stationary population of some 50 000 individuals who, undeterred by its marginal conditions, gave priority to farming and only attended part-time to one of the world's most valuable fisheries that surrounded their country. It is also a story of the distant monarchs of the Danish-Norwegian kingdom whose limited control of resources and of agents in their North Atlantic island who thwarted royal intentions to expand the tax base. When the 19th century dawned, industrial technology and industrial organization in Iceland had not advanced substantially since the Viking age, and the emergence of an independent fishing industry had to wait for the last decades of the century (Magnússon, 1985).

In the study that follows, I focus on economic, political and social institutions that shape individual behavior and channel collective action. For instance, I examine institutions for regulating choice in the labor market, local governance systems such as the Icelandic communes or *hreppar*, and the administrative structure used by the crown to rule Iceland. The emphasis on institutions is not a denial of the importance in economic development of changes in preferences or of the growth of knowledge. But my argument is that lack of knowledge and inappropriate preferences, although playing an important role, are not critical for explaining the absence of a specialized fishing industry in Iceland until the late 19th century.²

First consider the notion that the Icelanders' lack of knowledge about fisheries technology and exporting was the ultimate cause of centuries of stagnation. Is it possible that the Icelanders did not develop an effective fishing industry because they knew only small rowboats and fishing lines with single hooks, and had no conception of exports and export markets? The evidence does not support this view. Inshore fishing was a part-time activity of farmers from the time of the country's settlement around 900 A.D.; substantial exports of fish began in the 13th century gradually replacing woolen products as the

²Many scholars challenge this view. Hastrup, 1990 (p.4) concludes that "the Icelanders were actually imprisoned by their own mentality". However, as Burke (1986) argues, the mentalities approach has not provided a satisfactory explanation of the passage from one mentality to another. In the Icelandic case, the approach cannot explain the collapse of the traditional institutional structure in the 19th century or even the country's vigorous response to the opportunities offered by English and German interlopers in the 15th and 16th centuries.

country's major export; and, from around 1400, when English fishermen first appeared, the Icelanders were exposed to state-of-the-art in fishing technology through their contacts with foreign fishing fleets.³

Second, consider the hypothesis that the Icelanders failed to develop an independent fishing industry because their values were in fundamental conflict with commercial exchange; that the chief objective of the actors in the country's primitive household economy was to satisfy basic needs rather than to accumulate wealth through exchange. Again, history fails to support this alternative (Byock, 1988, Jóhannesson, 1974, Lárusson, 1967, Miller, 1990). The desire to accumulate was unbridled in premodern Iceland, which is evident already in the sagas that deal with the Viking period and from the extremely unequal distribution of private wealth in premodern Iceland. Further, the Icelanders were never shy of commercial exchange: land was priced and exchanged; agricultural and marine products were exported and luxury and other commodities imported; in the Commonwealth period not only were seats in the national assembly, *Althing*, traded, but the law allowed actors in court cases to sell to third parties both the rights to prosecute their cases and to enforce the verdicts.⁴ Even if the Icelanders aspired to ensure only survival, institutional change was required all the same, because the premodern economy did not meet basic needs and could not avoid the frequent Malthusian cycles of epidemics and famine (for instance, see Gunnarsson, 1983, Gunnlaugsson, 1988). Finally, the argument that value systems hostile to change blocked economic development does not explain the economic take-off in the late 19th century, when labor and capital overcame formal institutional barriers and flowed into urban areas, into the fishing industry and even out of the country.⁵

While mindful of these arguments, this paper emphasizes the role of economic self-interest and high transaction costs in perpetuating the status quo of the premodern economy of Iceland. Section 2 analyzes the main components of the equilibrium trap that prevented large-scale transfer of resources from farming into fishing. The section introduces the key actors in the economic and political sphere and identifies their fundamental interests and constraints. Section 3 has a dynamic perspective and examines the demise of the traditional system and the slow transition to a new structure of industrial organization. Section 4 summarizes and concludes the preceding argument.

³During the Commonwealth period, 930–1262, woolen cloth, *uvathmál*, was the country's most important export product, but after the union with Norway in 1262 dried fish, *skreith*, gradually replaced *uvathmál* as the basic export. By 1340 woolen products no longer were the country's major export. In 1361 the crown assigned control of Iceland's exports to the merchants of Bergen. Hanseatic merchants, who at the time controlled the trade of Bergen with countries outside the kingdom, reexported Icelandic *skreith* to their markets in Europe (Gelsinger, 1981, pp.181–194). Thoroddsen (1924), p.54) notes that already in the 14th century, Icelandic stockfish had become a known quality product in Europe's Mediterranean region, and on contemporary maps Iceland was sometimes known as *Stokkafixa*.

⁴The legal system of the Commonwealth was based on self-enforcement of the law (for instance, see Friedman, 1979).

⁵Admittedly, in the late 19th century and in the early 20th century, powerful elements of the traditional farm community did wage (unsuccessful) ideological and political wars against urbanization, the new wage-earning class, the fishing industry, and industrial development. Ásgeirsson (1988) provides an excellent analysis of the bitter struggle over modernization.

2. The equilibrium trap

2.1. Background

Iceland was settled in the late 9th and early 10th centuries, mostly by Norsemen, and after enjoying an initial period of considerable prosperity the country entered a path of economic stagnation.⁶ The central paradox in Icelandic economic history is the failure of the Icelanders to develop a specialized fishing industry for exploiting on a large scale the country's famous fisheries. From the Middle Ages until the end of the premodern era in the 19th century, various institutional arrangements blocked the development of an independent fishing industry in Iceland. A crucial component of these man-made constraints were laws and regulations that impeded the development of townships with specialized fishermen. Of particular importance were laws that restricted labor mobility by requiring all adults, with few exceptions, to live on farmsteads as farmers or servants. Also important were laws that prevented foreigners from cooperating with Icelanders in the coastal fisheries. Even during the period of Danish monopoly trade, 1602–1787, Danish merchants were not allowed to winter in Iceland.⁷ Finally, Icelandic prices were regulated, and the price of fish relative to the price of agricultural exports was kept lower in Iceland than in the foreign markets. I argue that these regulations reflected narrow economic interests of farmers, landowners, and the crown. The crown's uncertain control of its tax base in Iceland was a major part of the story, and so also were fears of the farm community of competition in the labor market.

Before examining the property rights of leading economic and political actors in premodern Iceland, it is necessary to provide a short account of the country's industrial organization (e.g., see Eggertsson (1992, 1994)). Until the late 19th century, Iceland was essentially a rural society of farmsteads scattered in coastal and fjord lowlands around the island. The farmers raised livestock which grazed unattended in mountain pastures in the summer and on home fields in winter. The main crop was hay. Both by law and in practice, fishing was a secondary activity of (some) farmers and their servants, which mainly occupied them during the slack winter season. In winter the valuable migratory cod was found in shallow coastal waters in the country's southwestern region. As most fishermen used primitive open rowboats, they could travel only a few miles and usually returned to land the same day (Gunnarsson, 1980).

Apparently, the size and quality of the vessels deteriorated after the Protestant Reformation in the mid-16th century. In the civil war of the 13th century, the Icelanders fought their only naval battle (Flóabardagi, 1244), with some 680 men and 35 ships. The ecclesiastical seas at Hólar and Skálholt owned several vessels, including ocean-going ships that were either built domestically or purchased from foreigners. For instance, in

⁶Although they are unable to date precisely the onset of economic stagnation, historians agree that the economy of Iceland was stagnant from the late Middle Ages until the 19th century. Toward the end of the 10th century the Icelanders founded two colonies in southwestern Greenland, which suggests that Iceland was fully settled by the year 1000. Similarly, there are reasons to believe that in the 13th century economic stagnation and population pressures contributed to the country's only civil war, which ended in 1262 with a union with Norway.

⁷In the 18th century the Danish authorities made several attempts to lift the ban and allow wintering by Danish merchants (see Section 3.1).

1431 Hólar bought a ship from English merchants to sail between Iceland and England, and in 1567 Hólar bought another large ship, this time from the merchants of Hamburg (Thoroddsen, 1924, pp.51–52, 72–76). Relatively abundant driftwood was the Icelanders' only domestic material for building boats, but timber was imported for boats, dwellings, and even cathedrals. A lack of suitable vessels (at reasonable prices) is not a convincing explanation of the backward nature of the fisheries in premodern Iceland.

In premodern Iceland, however, the fishermen used mostly small open boats which they could pull ashore for protection at the end of a trip. Access to a beach in the southwestern region was, therefore, a precondition for entering a boat in the winter fisheries (Thorsteinsson, 1980, p.214), and sources indicate that law and custom provided outsiders fairly liberal access to the fishing beaches with their boats (Kristjánsson, 1980–86, vol. 3, p.93). Under the law, landlords on the coast retained property rights to the beaches and to a narrow strip of coastal waters, but otherwise access to the fishing grounds was open to all Icelanders. Of course, many farms even in the southwest were inland or did not have access to beaches appropriate for fishing, and all such boat owners were charged for the use of beaches and boat sheds. Also, fish taken out of a district was taxed (Kristjánsson, 1980–86, vol. 3, pp.93–97). Although farmers in the northeastern region and inland farmers could rent beach rights for their boats from landlords in the fishing stations of the southwest, they generally preferred to buy the fish, either directly or indirectly by providing fishermen for the fleet in return for a share in the catch. Figures from the 19th century, when internal passports had been introduced, show that most of the servants, who left their farms to participate in the winter fisheries, came from the districts in the southwest, and participation rates from the northeastern region were far lower than in the southwest (Kristjánsson and Gunnlaugsson, 1990, pp.25–27). Coastal properties in the fishing regions frequently were operated by tenants but owned by the church, the Danish crown, and by wealthy individuals. Tenants in these regions often paid their rent in part by serving as fishermen on boats owned by their landlords.

2.2. *The uncertain property rights of the crown*

The main economic and political actors who influenced the course of events in the Icelandic economy of the premodern era were the crown, agents of the crown, the church, landowners, tenant farmers, farm servants, foreign merchants, and foreign governments. However, in many ways it was the crown that controlled the fate of the country's fisheries. Fig. 1 presents a summary view of the highest political authority in Iceland from 930 to 1904. This paper is concerned largely with the period from the union with Norway in 1262 until the end of the premodern age, late in the 19th century.

During the Commonwealth period, the *gothar* regulated the country's foreign trade. They were 39 regional chieftains who held seats in the national assembly (Jóhannesson, 1974). After the union with Norway, the Norwegian king acquired property rights to all trade with Iceland, including the right to determine (at least formally) what foreign merchants could enter the trade (Gunnarsson, 1987, p.74). In 1383 these rights were passed to the Danish crown when it took over Iceland from Norway.

The size of the crown's tax base in Iceland depended primarily on the value added in farming and fishing, and, of the two, the primitive fisheries provided both more tax

period	Highest authority	Limits to authority
930-1262	The chieftains of the Commonwealth	
1262-1380	The king of Norway	
1380-1904	The king of Denmark	
1415-1475		The English Age. England has strong influence on Icelandic affairs
1475-1520		Strong German influence. Merchants from Hamburg.
1874-1904		Icelanders gain power. Home rule 1904.

Fig. 1. Political authority in Iceland 930–1904.

revenue and greater potential for long-term growth. In order to grow the fisheries required extensive foreign contacts—access to export markets and to vital imports, such as timber, fishing gear, vessels, and technology. The small scale of economic activity in Iceland demanded that critical inputs and international marketing services either be purchased from outsiders or be obtained in joint ventures.⁸ Potentially the Scandinavian connection provided such a contact, but the crown's failure to develop a strong specialized fishing industry in Iceland is a central puzzle of this story. My contention is that the solution involves two elements: one relating to the peripheral status of Iceland in the kingdom and the other to the challenge to the crown from cooperation between Icelanders and outsiders.

The crown's unwillingness to invest substantial resources in enforcing its property rights in isolated and distant Iceland suggests that the colony was of marginal interest to the kingdom and that the transaction costs of developing a strong presence there were thought to outweigh the benefits. It is important to note that through the centuries Scandinavian fishing fleets were not found in Icelandic waters, unlike the fleets of many other countries, presumably because the Scandinavians had access to relatively abundant fishing grounds closer to home.

⁸However, crew size on an efficient contemporary fishing vessel was not large enough to pose any scale problems for the small Icelandic community.

The crown's unwillingness to invest in Iceland was reflected in its low profile in the country and in the relative autonomy given the Icelanders. Fig. 2 presents a scheme of the Danish-Icelandic system of administration in the 18th century before 1770. The crown did not maintain a permanent military post or a regular police force in the country, and the royal administration in Iceland only numbered some 30 individuals (excluding a few

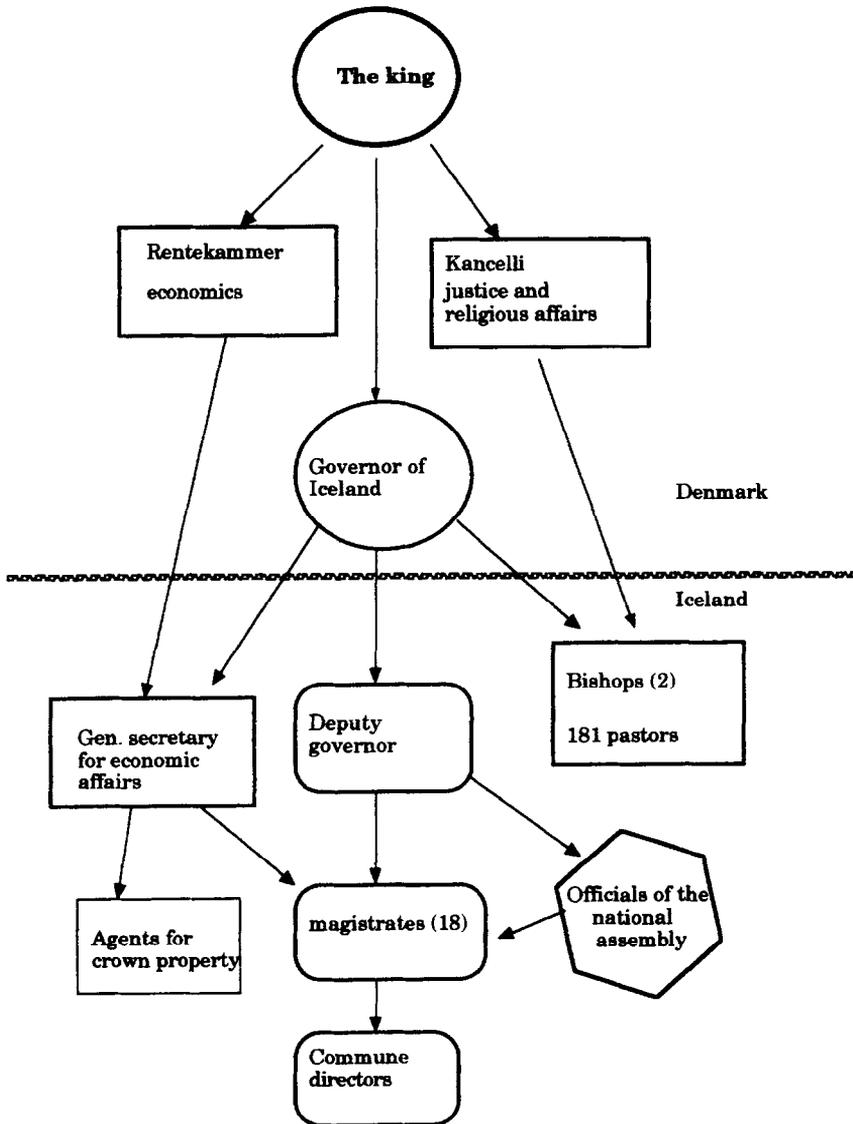


Fig. 2. The administration of Iceland in the 18th century, prior to 1770. Source: Thorsteinsson and Jónsson, 1991 (p.226).

inspectors of crown property and the servants of the church, who became servants of the crown after the Protestant Reformation). Until 1770, even the Danish governor of Iceland sat in Copenhagen. Finally, the center communicated with the dependency mostly during the summer months, and for the remainder of the year Iceland was out of contact.⁹

The strategy of limited involvement gave considerable autonomy to the local elite. As late as the 16th century, Icelandic leaders maintained that the crown could not set new laws for the country without consent from its general assembly, *Althing*. Similarly, until about 1700 the Icelanders were allowed to set new laws by having their courts rule on questions of a general nature (Lárusson, 1958, p.208). In sum, limited involvement implied royal reluctance to confront the local elite except over fundamental issues, such as sovereignty. Also, limited engagement, and no organized defenses, made the remote island vulnerable to incursions by outsiders, particularly by foreigners attracted to the country's rich marine resources. For the crown, even voluntary cooperation of Icelanders with foreigners in fishing and international markets was a potential threat, and events of the 15th and 16th century, when Copenhagen temporarily lost control in Iceland, convinced the rulers of the need to isolate the island.

The first foreign power to intrude in a serious way were the English who entered the Icelandic fisheries around 1400. They were motivated by strong demand for dried fish in Europe and aided by a technological revolution in shipping.¹⁰ During this era, the English operated coastal fishing stations in Iceland; a 1528 report on the Iceland fishing fleet lists 149 ships (doggers), all from the east coast of England while the entire fishing fleet of England in 1528 numbered 440 vessels (Thorsteinsson, 1976, p.49). The Iceland fisheries were of considerable importance for the English economy in the 15th and early 16th centuries and the English crown levied heavy taxes on the fleet (Thorsteinsson, 1976, pp.121, 122). For the Icelanders, who previously were compelled to trade solely with Bergen, the English connection opened a new and valuable market. As a consequence, the fishing sector expanded and the Icelandic economy blossomed. The period is also known for plunder and violence.¹¹

⁹A curious episode in 1809 illuminates the crown's at times uncertain property rights in Iceland. An adventurer of Danish origin, Jörgen Jörgensen, arriving in Iceland on a British merchant ship, organized this shipmates to arrest the Danish governor and take over the country. At this time, Denmark, having sided with France, was at war with England. Jörgensen proclaimed himself king of Iceland and ruled the country for two months, without opposition. A visit by a ship of the British navy dethroned Jörgensen, who ended his days as a journalist and writer in Tasmania (Thorsteinsson and Jónsson, 1991, pp.261–264).

¹⁰The new ships had two masts and several sails, instead of the one mast that was typical of ships of the Viking period (Thorsteinsson, 1976, p.9). Icelandic historical writing has been rather silent about the English Era in Icelandic history, partly because relatively few documents of the period are available in Danish and Icelandic archives and libraries. Much of the recent interest in the period is due to research by the late historian, Björn Thorsteinsson, who drew on British sources.

¹¹On 6 April 1491, Henry VII writes to "John Ver, Erle of Oxynford, Gret Chambyrleyn and Admirale of Yngland" "in that ye desyer all the dogers of thos partes schuld have our licens to departe in the viage towards Islond, as they have ben accustomed to do yerly in tyme passyd ... ovr fully interly beloovyd cousyn the Kyng of Demarke hath ... complaynyd ... that our subjectes ... stelle, robbe, and exstorte his subjectes there ageynse ryght and conciens" Cutting, 1955, p.127). In 1423 English traders arrested and brought to England the highest representative of the crown in Iceland. In 1467 they killed the king's deputy in the country and during this era an Englishman became a bishop over the northern half of Iceland (Thorsteinsson and Jónsson, 1991, pp.149–177).

It took Copenhagen about 150 years to fully get rid of the English intruders in Iceland. The crown met the challenge in various ways: it attempted unsuccessfully to sell licenses to the English fishermen (Thorsteinsson, 1976, pp.121, 122); it played a game of hostages by closing the Danish straits to the English and thereby their access to valuable trade in the Baltic Sea; and it even offered Iceland to Henry VIII as collateral for a loan (Thorsteinsson and Jónsson, 1991, pp.149–177).¹² More effectively, Copenhagen exploited the interest of German traders in the Iceland fisheries, particularly from the city of Hamburg, and played the Germans off against the English in their competition for the country's resources.¹³ In the 16th century the crown assigned German governors to Iceland, and English and German traders skirmished in coastal fishing stations, with the Icelanders now siding with the Hamburgers who offered more lucrative trade than the English. Around 1540 the English lost their last posts on the mainland of Iceland, and, in 1559, with some help from the Scots, they were driven from a stronghold in the Icelandic Westman Islands. With the English out of the way, the crown turned on the Hamburgers and, in 1554–1555, confiscated their property in Iceland, including 45 fishing boats which the Germans had operated jointly with the Icelanders. The boats became the core of the crown's new fishing fleet. Meanwhile, the Danish navy had become a powerful force, and in 1574 the crown confiscated 30 ocean vessels belonging to the Hamburgers. Toward the end of the 16th century the Danish monarch had regained tolerable control over Iceland (Thorsteinsson and Jónsson, 1991, pp.149–177, Thorsteinsson, 1976).

The crown now confronted a dilemma: how both to find cost-effective ways to protect its property rights in peripheral Iceland and to provide conditions for a strong economy that would maximize its tax revenues. However, the two goals were in conflict. The economy was best served by a policy of free trade that allowed the Icelanders to cooperate with whichever foreign party that had the most to offer, but the 15th and 16th centuries had taught Copenhagen that, in Iceland, free trade without strong defenses meant the end of Danish rule. The compromise solution, which put Iceland on a path of decline until the end of the 18th century, had four elements: (a) the country and a protective belt of ocean around it were put off limits to all non-Icelandic vessels; (b) the crown monopolized trade with Iceland and leased the rights to traders in specific cities in the kingdom; (c) measures were taken to prevent the development of coastal townships which might draw traders from outside the kingdom; and (d) only farmers could enter the coastal fisheries. In the mid-16th century, the Danish authorities (in cooperation with Icelanders) began a drive to eradicate foreign fishing interests from the Icelandic coast. From around 1600, the Danes strove to enforce a ban on trade between Icelanders and persons outside the kingdom, and in 1631 A.D. the Danish crown claimed an exclusive fisheries zone around the country. At that point, the North Atlantic was an open ocean, *mare liberum*, except for an exclusive zone around Iceland. However, the enforcement costs were high, and Danish ability to enforce these rights varied with the strength of

¹²It was Christian II of Denmark who in 1523 offered Iceland both in Amsterdam and in England as collateral for a loan needed to defend his throne (Thorsteinsson and Jónsson, 1991, p.174).

¹³The Hamburgers were free-riding on the Hanseatic League where they were members. The League did not favor trade by its members with Iceland because of threats from the English.

outside pressures and with the fortunes of the kingdom (Thorsteinsson, 1976, pp.119–130).

Danish monopoly trade prevailed from 1602 to 1787. The arrangements varied, but the rights to trade with Iceland were leased usually for periods of 6 years to merchants in Danish cities, mostly in Copenhagen. Twice during the monopoly era, in 1759–1764 and 1774–1787, the royal household managed the trade directly. The value of a monopoly license was related closely to the volume of fish products in the trade; that is, licenses to trade in stations of the northeastern region, which primarily exported farm products, were less valuable than licenses to trade at the more valuable fishing stations of the southwest. Trade in farm products was relatively unprofitable for the Danes because agricultural prices were kept artificially high, which, in effect, made the fishing regions of Iceland subsidize those regions primarily dependent on farming (Gunnarsson, 1987, p.52).¹⁴

The crown also entered the fisheries directly as a landlord by acquiring valuable property in the coastal regions of the southwest during the Protestant Reformation of the mid-16th century. The Danes brought a military force to Iceland for the occasion, confiscated land owned by the monastic orders and, compelled the sea in Skálholt to trade much of its best coastal property in the southwest for land in primarily agricultural districts. Once the smoke had cleared after the Reformation, the crown owned nearly 20% of the farmland and operated its own small fishing fleet.¹⁵

The crown appeared to be satisfied with its compromise solution. Although modernization, specialization, and greater scope could have increased enormously the yield from the fisheries, the crown did not push hard for such changes. The periodic attempts at reforms did not seek structural changes but encouraged the farmers to improve their boats and gear and pay more attention to the fisheries. Through the centuries, the presence off shore of English, Scottish, Dutch, German, Spanish and French fishing fleets, along with their occasional incursions and illicit trade with the Icelanders, constantly reminded the crown of the need to isolate the country from outsiders. Powerful interests back home did not demand access to the Icelandic fisheries: various circumstances in the Danish kingdom, such as access to the Norwegian cod fisheries, kept the Scandinavian fishermen mostly in their own region and did not send them chasing the cod overseas to Iceland or later to North America. Further, the policy equilibrium was reinforced by the interests of the elite in Iceland that supported the status quo and strongly opposed any attempts to release labor from the land.

¹⁴Athils (1971) [1919] provides the classic historical account of the Danish monopoly trade in Iceland. For the definitive modern analysis see Gunnarsson (1983), who created new perspectives on the economic history of Iceland. This paper relies extensively on his work. Gunnarsson (1983) estimates the incomes of the crown and the merchants from the monopoly. Until 1662 A.D. the price of licenses to trade with Iceland was kept low, and the crown relied on taxing the trade. After 1662 A.D. taxes and duties were abolished and the price of licenses was raised, usually to what the market could bear.

¹⁵The crown had agents in Iceland who collected rent from its farmsteads and income from the fishing operations. For a brief account of how the crown sought to deal with its agency problems in distant Iceland, see Gunnarsson (1983), p.155, 156).

Table 1
Distribution of landownership by type of owner (in %)

Year	Private	Church	Crown
1540/50	53	45	2
1560	50	31	19
1695	52	32	16

Source: Lárusson, 1967 (p.60).

Table 2
Distribution of ownership of private land around 1700

Share in total (%)	Individuals	
18.36	richest	13
30.98	next	68
50.66	remain.	1224

Private individuals owned 52.3% of all farmland.

Source: Thorsteinsson and Jónsson, 1991 (p.231).

2.3. Landlords and the labor market constraints

The policy of limited engagement required the crown to rely on cooperation from powerful Icelanders. In Iceland power was associated closely with the ownership of land, which was concentrated in relatively few hands, as shown in Tables 1 and 2. In 1695 about one half of the farmland was privately owned, the church possessed 32%, and some 16% belonged to the crown. The private sector was dominated by a small number of powerful individuals—for instance, at the beginning of the 18th century 81 individuals owned one half of all private land in the country.

In the premodern period nearly all farmers were tenants and did not own the land they inhabited. Tenants were mobile and free to rent farms anywhere in the country. In a total population of 8191 heads of households in 1703, some 96% were tenants (Lárusson, 1967). Farmland in Iceland was scarce, and the number of farms remained relatively stable at around 6000 through most of the premodern era. The number of hired laborers was relatively large with some 18–24% of the total population listed as farm servants in the 18th and early 19th century. Labor was cheap, and even poor tenants frequently hired one or more workers (Gunnarsson, 1987, p.35). It was customary to employ servants on a one-year renewable contract, and, during the contract period, employers were responsible for the welfare of their servants. The country's informal social insurance system was based on about 160 communes, *hreppar*, that had considerable autonomy and were the smallest units in the country's administrative system. Indigent individuals had a claim on their local commune for support, provided that neither their households nor their extended families could care for them (Eggertsson, 1994).

Two themes united the farmers of the premodern era. One was an obsessive concern that adverse selection and moral hazard might undermine the insurance system of the *hreppar* and drain the taxpayers' wealth. Each farmer was responsible for his or her servants, but independent workers and fishermen might attempt to free-ride on their *hreppar* and become strategic welfare recipients (Gunnlaugsson, 1988). The other issue

was a constant worry over labor shortages (or upward pressure on labor costs), which did not subside even in the second half of the 19th century when the servant-farmer ratio was relatively very high (Magnússon, 1985, p.240). Both issues were related to the tension between the two sectors of the economy, the farm sector and the fisheries.

The productivity of labor in farming was low, partly due to the harsh environment and primitive techniques, whereas in the fisheries marginal productivity was much higher than in farming and the potential for growth far greater. Landlords and tenants realized that the development of a specialized fishing industry would draw farm workers away and that labor costs would increase substantially. Indeed, they had experienced such developments in the 15th and 16th centuries at the time of English and German involvement in the fisheries. However, farming provided the typical household with only a small margin beyond mere subsistence, and the yield appears to have declined over time with cooling temperatures (the Little Ice Age), soil erosion, and other factors. Female servants typically received only food, clothing, and shelter, and male servants a small additional payment (Thoroddsen, 1921). To the farmers the demand pressures from the fisheries were ominous. A substantial upward shift in labor costs could bankrupt tenants on marginal land and significantly reduce the wealth of the landowners.

Yet it was also obvious that the opportunity cost of concentrating exclusively on farming and of ignoring the fisheries was high in a poor country where famine was endemic. To solve the dilemma, the elite in Iceland attempted to design institutions that would allow the farmers to exploit the inshore fisheries but also shelter the agricultural sector. At the heart of this system were institutions intended to prevent the emergence of an independent labor force, as well as fishing and trading towns, which required all workers to live on farms and which restricted and nearly eliminated the options of independent wage-labor and non-farm households.

Institutions designed to compel all Icelanders to live on a farm date back from the first centuries of the country's history. But the pressure for such arrangements mounted in the 15th century when farm servants flocked to the coast to work for English and later German traders wintering in Iceland and to participate in the fisheries.¹⁶ Various resolutions concerning the exclusion of foreigners were made but initially to little effect. For instance, in 1480 Icelanders wrote to their king complaining of foreigners who operated establishments in coastal areas, draining servants away from the farms. The critical regulation of the period which influenced later developments was a ruling by governor Pining in 1490. The Pining judgment, which the *Althing* confirmed, forbade foreigners to winter in Iceland, except in emergencies; it outlawed cottagers unless they met a stringent minimum wealth requirement; and it required others to be either farmers or farm servants (Thoroddsen, 1921, pp.299–301). Restrictions of this nature were in force during the remainder of the premodern era (and into the modern era) with the Pining judgment frequently reconfirmed by the courts. However, enforcement varied considerably from one period and location to another.

¹⁶*Grágás*, the laws of the Commonwealth of 930–1262, forbid non-farm households, except when members of a commune guarantee their support (Karlsson et al. Eds., 1992, p.104). The laws that took effect after the union with Norway (*Jónsbók* from 1281) require a minimum size for farms, justifying the measure by referring to a shortage of farm workers (Halldórsson, Ed., 1970, p.234).

The authorities were particularly concerned with suppressing itinerant workers. Legitimate itinerant workers did exist, but they were required to meet a high minimum wealth requirement, which in the 18th century was three times higher than what was demanded of those who wanted to become a farmer. The reins were tightened (unsuccessfully) toward the end of the era, 1783–1863, when itinerant workers were outlawed altogether (Gunnarsson, 1987, pp.32, 33).

Evidence from court records reveals that these institutions did not prevent constant tugs of war between the two activities, farming and fishing. The farm community was conscious of latent pressures on labor costs and fought to prevent them from emerging. When the pull of the fisheries was relatively strong, the courts restated the regulations in the labor market and the authorities tried to tighten enforcement. New incentive schemes for the fishermen were seen as a threat to the system and forbidden. For instance in the 16th and 17th century, the courts in a western district repeatedly outlawed a practice whereby fishermen (mostly farm servants) were allowed to keep the fish caught on hooks that were assigned especially to them on lines with many hooks (setlines) (Kristjánsson, 1980–86, vol. 3, pp.311, 312). The farm community also saw improvements in fishing gear, and the resulting increase in productivity, as upsetting the balance. In fact, landed interests opposed setlines in themselves, which probably English fishermen had introduced in Iceland. In 1578, and again in 1586, the national assembly ruled that fishing lines with many hooks were not permitted during the main (winter) fishing season. A letter from 1581 has survived in which prominent farmers wrote to the king's deputy and complained about the common practice in a particular district of the use of setlines. The complainants gave as one reason for their grievances that servants prefer to work in fishing stations that used setlines, which incited them to go their own way and created shortages of labor on the farms (Kristjánsson, 1980–86, vol. 3, pp.429–431).

Finally, the artificially low relative price of fish must have discouraged investments in the fisheries. Under Danish monopoly trade (1602–1787), the price of exports and imports was fixed according to a royal price list that was revised only at long intervals and corresponded to traditional price lists for internal trade in Iceland.¹⁷ The crown appears to have taken advantage of the traditional price structure in internal trade and assigned a low purchase price to the country's most valuable export. The large gap between the world price for fish and the purchase price in Iceland increased the value of the trade licenses sold by the crown, but the long-run effects discouraged local investments in the fisheries. Available evidence registers a decline in the share of fish products in total exports, although a number of factors may have contributed to the decline (Gunnarsson, 1983, pp.52–54, Thorsteinsson and Jónsson, 1991, pp.232–233). In the last quarter of the 18th century, when the crown made serious efforts to revive the Icelandic economy, large increases in the relative price of fish were a key element of the reforms.

¹⁷“Prices were fixed in this trade; bargaining was not allowed. From 1619, the crown decided which prices should exist and these changed very little till 1776, with the exception of the period 1684–1702, when the prices were made more favourable to the Icelanders. The monopoly trade price lists 1619–1776 corresponded well to the very old price lists in Iceland's internal trade which had changed little since the High Middle Ages” (Gunnarsson, 1983, p.28).

2.4. *The trap revisited*

The main thesis is that the colonial element was essential for sustaining the equilibrium trap that held the Icelandic economy at such a low level of development. Without the colonial component, local barriers still would have raised the cost of entry into the fishing industry, but they would not have prevented the emergence of an independent fishing industry.

To thrive, the fishing industry had to reach beyond the restricted Icelandic market and find outlets elsewhere in Europe, for instance in England, the German regions or in southern Europe. Icelandic institutions certainly created hurdles for a landlord who sought to specialize in fish products for export. In the labor market, bondage required boat owners to operate a farm and raised the cost of labor. Seasonal workers were available from local and outlying districts, but the law made employers personally responsible for the welfare of their permanent workers, even when they lived in separate households. Apparently these rules were not enforced rigorously all the time in the fishing communities of the southwest where households were involved only nominally in farming. Yet, the main fishing areas were not self-sufficient in labor but drew seasonal workers from other districts, with migration varying indirectly with the fortunes of farming. Also, the residents of coastal areas often sought summer employment inland (Thoroddsen, 1921).

The barriers in the labor market should not be underestimated. In 1776–1787 the trade monopoly, now directly managed by the crown, operated a “modern” fishing fleet in Icelandic waters, but the experiment failed. The director of the company blamed the failure on shortage of labor and Icelandic resistance to innovation (Gunnarsson, 1983, pp.184–198, 253). However, other factors worked against a struggling fish industry, such as the notorious Famine of the Mist (1783–86), when some 20% of the Icelanders perished, and drop in fish prices, when American supplies reached the European market again after the War of Independence (1783). The obstacles in the labor market were not trivial, but competition from thriving fisheries overcame bondage in the farm sector in the 15th and 16th centuries, and again in the 19th century.

Money and credit also were an obstacle for a prospective entrepreneur. The local economy primarily was based on barter, and no credit organizations existed. Foreign trade gradually would have brought exporters in contact with more sophisticated systems of exchange, but initially they had to trade fish (and other exports) for better equipment. In this context, it is interesting to note the price of large ocean-going vessels relative to the value of fish in foreign markets. Thorsteinsson (1976, pp.67–69) has examined accounts of English doggers that operated off Iceland in the first half of the 16th century. He found that the value of one shipload of stockfish was equal to some 40–80% of the price of a dogger, plus labor and other operating costs: a lucky investor in England could almost recover the price of a ship in one expedition to the Icelandic waters. However, fish prices during this period were exceptionally high.

The expected cost of entry into specialized export fisheries varied greatly among Icelandic landlords, with the relative advantage going to actors already with international contacts and experience in the part-time fisheries. In an open economy, defection from the coalition of landlords was the dominant strategy for those with a relative advantage in

fishing. Acting alone, an entrepreneur could ignore downward pressures on the price of land or rising labor costs, and, if expecting a number of others to have similar plans, he or she would have an incentive to be first. The country's two powerful and wealthy seas, at Skálholt and Hólar, with their international connections, were prime candidates for defection, and evidence suggests that they may have tried to defect. Both seas maintained ocean-going vessels and relatively large fishing boats. In 1576 the bishop at Hólar bought a large ship from the Hamburgers and later obtained permission for the ship to go abroad and also trade in northern Iceland. The landowners responded in the highest court of the national assembly, which sent a note of protest to the crown. In the letter the bishop is accused of greed, of placing self-interest above the general welfare and damaging the interests of the ruling class.¹⁸

It is necessary to reemphasize that defecting from the coalition of landlords and overcoming obstacles in the labor market were not sufficient for developing viable export operations. Foreign contacts were needed both to procure inputs and find outlets for the output, which raises two fundamental questions: (a) did the Icelanders have a relative advantage in fishing? and (b) could they have found foreign markets for their products?

The first question concerns the relative advantage of being close to the fishing grounds. Proximity creates valuable opportunities for processing the fish ashore and for organizing the fisheries from a nearby land base. In historical times, foreign fishermen put much value on access to Icelandic shores, which the policy of isolation denied them. When the English discovered the Newfoundland fisheries they set much store by the availability of a land base.¹⁹ The importance of a base near to the fishing grounds also is evident from a French attempt in 1855–1856 to obtain permission for a large settlement on the Icelandic west coast.²⁰ Finally, during the 20th century, location proved extremely valuable for the Icelandic economy. Growth led by the export of fish products created living standards comparable those of Scandinavia.

The counterfactual question of developments in the absence of the trade monopoly and related colonial policies, especially Iceland's access to international markets and joint ventures with foreigners, is a complex one. In the 15th century, the world market came to Iceland, so to speak, in the shape of English fishermen and traders, and various forms of cooperation (and conflict) ensued. The English were followed by the Hamburgers who emphasized trade and sold the highest quality Icelandic *skreith* in central Europe. After losing their foothold in North America, the Dutch became much interested in the Iceland

¹⁸The crown ignored the message, but the ship was lost at sea (Thoroddsen, 1924, p.74). The Protestant Reformation eroded the autonomy and wealth of the Icelandic bishops, and by the 17th century the seas no longer were the powerful independent entrepreneurial force they had been.

¹⁹The voyage of John Cabot was in 1497, and by December that year the word had reached Italy "that this kingdom [England] would have no further need of Iceland, from which place there comes a very great quantity of fish called stockfish" (Mitchell, 1977, p.155). However, the discovery of Newfoundland did not end the Iceland fisheries of the English. In Newfoundland, the English initially repressed agriculture, allowing only small plots (called gardens) for household consumption, which is a mirror image of the industrial organization of premodern Iceland (Sider, 1980).

²⁰Free international trade in Iceland was opened in 1855 for the first time since 1262. To follow up their request, in 1856 the French sent prince Jerome Napoleon (a nephew of Napoleon Bonaparte) on a visit to Iceland. The request was denied (Thorsteinsson, 1976, pp.147–154).

fisheries and in trade with the Icelanders, filling the vacuum when wars in Europe kept the Danes at home. The Danish merchants of the Monopoly sold about half of the fish from Iceland domestically but contracted with Hamburg and Amsterdam to sell high quality fish in their markets, mostly in Central Europe. Finally, late in the 18th century the Danes began to venture directly into the markets of southern Europe, which in the 19th century became very important outlets for Icelandic exports.

In short, the Icelanders faced a large number of potential collaborators, but the Danish policy of isolation and monopsony prevented any cooperation, except temporary illegal exchanges. Under ideal conditions, the merchants of Copenhagen were relatively unattractive partners in the fish business—as recognized by a number of Denmark's leading civil servants in a report of 1787 in which they ruled against opening trade and relations with Iceland to actors outside the kingdom:

Several foreign nations could not only sell several products at a lower price than His Danish Majesty's subjects are able to do, but the profitable Icelandic fisheries will always be so tempting for them that excluding them (i.e. the foreigners) from the trade and the country would be impossible if its inhabitants were to be allowed to come into contact with them (cited in Gunnarsson, 1983, p.149).

The Danish merchants operated under less than ideal conditions: in the long run the institutional framework created perverse incentives for Danes and Icelanders alike. The low prices for fish offered by the monopsony gave the Icelanders little incentive to invest in better equipment and increase their supply. The merchants had even less incentive to invest because (a) the returns would be appropriated by the crown that extracted most of the rent from the fisheries by selling licenses, (b) renewal of the (six year) licenses was uncertain, and (c) regulations forbade Danish participation in the fisheries. It is not surprising that until the last years of the monopoly period, the merchants rented and did not own their ships and typically used them both as living quarters and for storage during their summer visits to Icelandic ports. Nor did the merchants invest substantially in international marketing but relied on intermediation, primarily by merchants in Hamburg and Amsterdam. Only toward the end, when the crown directly managed the Monopoly, do we see substantial investments in vessels, housing, storing facilities and marketing (Gunnarsson, 1987).

One may wonder why enlightened members of the Icelandic elite did not lobby the crown to change its foreign policy. The answer is that some of them did. As I will discuss in the next section, a number of Icelanders did lobby for an open economy and modernization of the economy, but they were a small minority. A string of statements and resolutions extending into the 19th century demonstrate that for the most part Icelandic leaders supported the various restrictions that held back the fisheries. It should be noted also that a large majority of the Icelanders were not involved in the fisheries.²¹

²¹Figures for the occupational structure of Iceland in 1703 suggest that 69% of all Icelanders were engaged in farming only. Another 15% of the population (mostly in the northeastern region) was involved both in farming and fishing, but only during the critical summer months of hay-harvesting and presumably on a very small scale (Magnússon, 1985, pp.37–39).

The disintegration of the premodern system and the evolution of an independent fishing industry had to wait for the crown to change its strategy and remove its contribution to the equilibrium trap by allowing free trade. The painfully slow institutional change leading into the modern era is a vast topic that I will briefly sketch in the next section.

3. The game unravels

3.1. The collapse of the traditional system

In the last quarter of the 19th century, urbanization and a modern fishing industry put the premodern economy system in Iceland to rest, but the seeds of its destruction were sown a hundred years earlier. In the first part of the 18th century, Copenhagen made various half-hearted attempts to lower entry barriers and expand the Icelandic fisheries. The Iceland fisheries were of considerable importance both to the crown and the Danish community, and the authorities were tempted to expand their tax base. However, the peripheral status of Iceland and the policy of limited engagement made the crown hesitate to impose its will on the Icelandic elite.

In 1701 the crown decided to permit Danish merchants of the trade monopoly to winter in Iceland, but Icelandic leaders protested, and the crown yielded in 1706. The trade charter of that year states: “the merchants are not allowed to have any fishing boats in the country nor to hire any laborers for working in the fisheries nor to have any fishing lines close to the coast” (Gunnarsson, 1983, p.24). In 1759 the crown allowed a single merchant to spend the winter in the country, and, in a trade charter of 1763, the merchants were allowed to station people in Iceland the whole year but were still forbidden to employ Icelanders in fishing (Gunnarsson, 1983, p.24). By a decree issued in 1762, Copenhagen appointed a special inspector for fisheries in Iceland, ordered that fisheries statistics be collected for the country, and forbade inland farmers from buying fish from the fishing stations, compelling them to do their own fishing. The measures from 1762 were opposed by the magistrates in Iceland and others, and in 1763 the crown withdrew the regulation (Gustafsson, 1981). In this instance, the proposal was impractical because fish was a key component of the Icelandic diet and many farmers did not have access to the sea (Rafnsson, 1983). In spite of minor confrontations, evidence shows that in matters of institutional change the administration in Copenhagen was sensitive to the wishes of the Icelandic elite, especially the opinions of its magistrates, who usually were wealthy Icelandic landowners (Gustafsson, 1985).

From around 1770 the crown changed its strategy and took a much firmer position on economic reforms. The virtual collapse of Icelandic society, to which the policy of isolation and monopoly trade had contributed, is a key factor in explaining the new policy. It had become clear in Copenhagen that Iceland, weakened by the policy of isolation and limited engagement, lacked the reserve and resilience to cope with cold spells, natural disasters (particularly volcanic eruptions and epidemics) that savagely plagued the country in the 18th century. In that century, the country went through three major population crises, and in Copenhagen there were discussions of moving all or some of the population off the island (Kristjánsson, 1977).

In 1770, and again in 1785, the crown appointed a royal commission of high officials to study the economic situation in Iceland and make recommendations for economic reforms. Both commissions paid special attention to the fisheries, and many important reforms of the late 18th century were based on their recommendations (Jóhannesson, 1950). In 1770, the office of the governor was moved to Iceland from Copenhagen; in 1771–1772, the crown subsidized the monopoly trade company to bring Norwegian boat builders and timber for 80 vessels to Iceland; in 1776 the crown took over and directly managed trade with Iceland and also operated a fleet of decked fishing vessels, in an effort to introduce new technology to Icelandic fishers (Jóhannesson, 1950, pp.265–267). Other developments in 1776 included a new royal price list that doubled the export price of fish (Jóhannesson, 1950, p.275). In 1787 the crown abolished the trade monopoly and opened trade with Iceland to all subjects of the kingdom, and the merchants were allowed to employ Icelanders in fishing; but free trade with all nations had to wait until 1855 (Thorsteinsson and Jónsson, 1991, pp.256–260). In 1787, when the trade restrictions were lifted, the price of fish increased even further because of a shortage of food in Europe (Jóhannesson, 1950, pp.230). Finally, on the recommendation of the royal commission of 1785, the crown attempted to establish a number of townships in Iceland and to provide subsidies and tax exemptions for traders and artisans who might choose to live there (Jóhannesson, pp.223).

The disasters of the 18th century jolted not only the crown but the Icelanders themselves. A number of modernists, including many members of a growing colony of Icelandic intellectuals in Copenhagen, supported efforts to liberalize the Icelandic economy and lobbied the crown to that effect. However, among the elite the modernists were in minority. For instance, as early as 1757, and again in 1767, an Icelandic intellectual, entrepreneur, and the crown's general secretary for economic affairs in Iceland, Skúli Magnússon, made proposal for ending the trade monopoly but without receiving general support from Icelandic leaders (Jóhannesson, 1950, pp.209–211).²² Rather than providing support for these attempts to liberalize the economy, in 1781 the landed interests pushed for the introduction of internal passports for people crossing county boundaries (Kristjánsson, 1980–86, vol. 2. p.393). Two years later the small and restricted, but potentially threatening category of independent workers was outlawed altogether, giving the workers six months to find employment as farm servants. The ban remained in effect until 1863 (Thoroddsen, 1921, pp.342–344).

3.2. Population pressures and the dynamics of institutional change

The dynamics of institutional change in Iceland, from the early reforms in the late 18th century till the emergence of a modern fishing industry 100 years later, is a complex story and not fully understood.²³ It is clear, however, that population pressures played an

²²In the 1750s Skúli Magnússon and others, with financial support from the crown, attempted to start light industries in Reykjavík and fishing operations with decked vessels. The attempt failed, partly because of opposition from merchants of the trade monopoly who felt that their territory had been transgressed (Gunnlaugsson, 1982).

²³Recently several valuable studies of the transition have become available. For instance, see Gunnlaugsson (1988), Hálfðanarson (1991), Jónsson (1991), Magnússon (1985), Kristjánsson and Gunnlaugsson (1990).

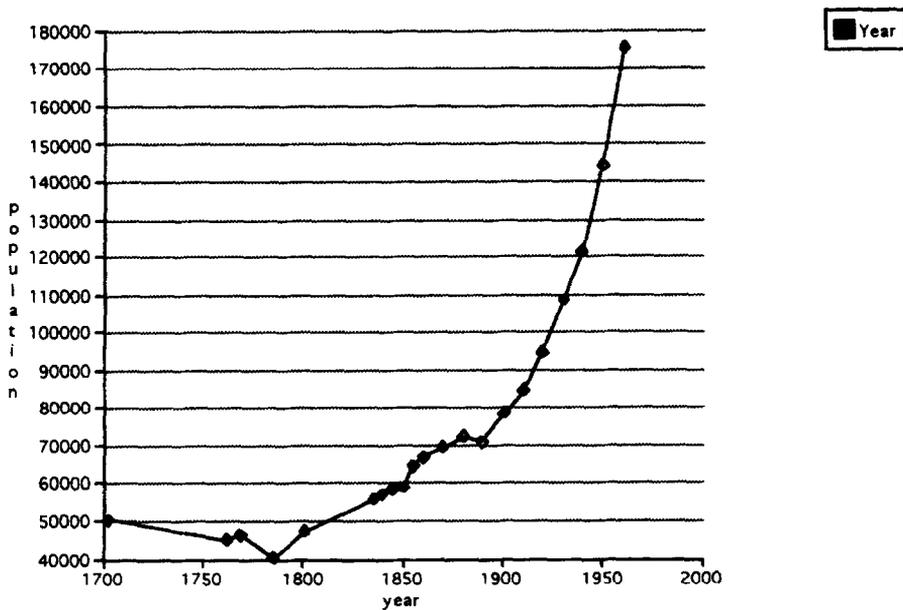


Fig. 3. The population of Iceland 1703–1960. Source: Statistical Abstracts of Iceland, 1984 (p.7).

important role in softening the traditional constraints in the labor market long before they were formally removed. Fig. 3 shows that the 18th century began with a population of about 50 000, but by 1785 the population had fallen to less than 41 000. Then sustained population growth took off, and by 1801 the population had reached 47 000, in 1850 some 59 000, and 72 000 by 1880. Improved living standards and rapid population growth partly were related to various reforms in the country's fisheries. In fact, Iceland almost quadrupled its exports of fish products in the first 40 years of the 19th century (Thorsteinsson and Jónsson, 1991, p.268). In responding to the debacle of the 18th century, the crown did not stop at the fisheries, but also introduced various piecemeal reforms in agriculture, such as fencing and the restructuring of property rights, which included selling church and crown land to private owners (Jóhannesson, 1950, Jónsson, 1991). The agricultural reforms also helped sustain a larger population, but it is important to note that the reforms, although undermining it, took place within the old institutional framework of the labor market. Formally, the fisheries were not given free access to manpower. Weakened by a disastrous involvement in the Napoleonic wars, Copenhagen still did not directly challenge the landed interests in Iceland.²⁴ For instance, in 1808 the Royal Financial Bureau in Copenhagen stated "that in the future, no one will be allowed to settle by the coast, unless he proves that, in addition to the house he rents or purchases, he has access to enough land to support at least one cow or six ewes" (cited in Hálfðanarson, 1991, p.67).

²⁴Denmark lost both its navy and Norway by joining the losing side in the Napoleonic wars.

Until the last decades of the 19th century, bondage in the rural labor market succeeded in slowing down the development of urban communities in coastal areas, in spite of natural limits to agricultural land. For instance, in 1801 about 0.6% of the population lived in Reykjavík, the country's main urban center. By 1850 the proportion had grown only to some 2%, and to 3.5% in 1880. In 1930 more than a quarter of the population lived in Reykjavík (Statistical Abstracts of Iceland, 1984, p.7). The rapid increase in the Icelandic farm population during the 19th century put great pressure on the farm community that responded by subdividing existing farms, setting up new farms on marginal land, and by increasing the ratio of servants to farm households. As the informal institutions of the labor market prevented farm servants from marrying each other, the proportion of (disgruntled) unmarried men and women grew rapidly (Gunnlaugsson, 1988, pp.108–118).

In the last quarter of the 19th century the dam burst. Periodic cold spells devastated many subdivided and marginal farms, and now the Icelanders had a new option, they could vote with their feet. In the last quarter of the 19th century some 15 thousand individuals, about 20% of the population, left the country mostly for North America. Others drifted into urban areas, ignoring restrictions on labor mobility. The traditional system had received its *coup de grâs*, but remnants of the formal institutional structure lingered. Historians frequently date the emergence in Iceland of a specialized fishing industry around 1870, but the Icelandic Parliament finally removed labor bondage in 1894 and restrictions on cottagers only in 1907 (Thorsteinsson and Jónsson, 1991).

4. Conclusion

This paper is concerned with a puzzle: why a nation that lived on an island next to some of the best fishing banks in the world gave priority for nearly 1 000 years to low-productivity sub-arctic farming and neglected the rich fisheries. While a number of European nations, beginning in the 1400s, maintained large fishing fleets off Iceland, the Icelanders organized their fisheries as a part-time activity, mostly using inferior technology and small open rowboats. Small scale in Iceland implied that an efficient, export-oriented fishing industry had to cooperate with foreign actors to gain access both to investment goods and foreign markets. However, the country was a dependency of the Danish–Norwegian kingdom which potentially could have cooperated in such effort.

This paper argues that the country was stuck in a pernicious equilibrium trap which had an external and an internal component. The internal component was related to the economic self-interest of landlords and farmers, who feared that the development of high productivity fisheries would raise the cost of labor in the country's low productivity agriculture. Therefore, a compromise evolved where labor was tied to the land, but tenants and farm servants could be used as part-time fishermen especially in the winter. Under this arrangement, the possibility still remained that enterprising Icelanders might join foreign interests in developing a specialized fishing industry with an independent labor force, which would have undermined the coalition of landed interests. However, the external element of the equilibrium trap was an effective constraint for containing potential defectors. The Danish crown followed a policy of isolating the country from

foreign influence and taxing the Icelanders by selling monopoly rights to trade with Iceland to cities in the kingdom, particularly Copenhagen. The Danish merchants of the monopoly trade were strictly forbidden to participate in the country's fishing industry or even spend the winter in Iceland. Further, Denmark did not invest in a permanent military presence in the country but relied on a small number of administrative agents that usually were Icelandic landlords.

The Danish policy of limited engagement and isolation was partly motivated by the experience of the 15th and 16th centuries, when English and later German interlopers drawn by the valuable fisheries, eclipsed Danish rule in Iceland. Similarly, many local measures for tying labor to the land originated in the English–German era and were intended to stop and reverse the growth of coastal fishing communities during that period. Under the monopoly-trade system, the Icelandic elite derived most of its wealth from the land, whereas the crown profited more from the part-time fisheries (Gunnarsson, 1987, pp.47–49). The purchase price of fish was set artificially low relative to prices in foreign markets, but agricultural products received a fair price.

Economic actors in Iceland evaded the constraints of the premodern system on various margins. Illegal trade with foreign fishers was common, especially when events on the continent of Europe kept the Danes busy at home.²⁵ Farmers in the chief fishing districts in the southwest established cottagers on their homesteads, whose primary activity was to fish rather than farm, but the farmers were responsible for the welfare these families. However, high transaction costs and uncertain property rights held back the fishing industry. The period of monopoly trade saw a deterioration of the capital stock in the fisheries and a worsening economic conditions in Iceland.

The equilibrium was upset when the crown, in response to deteriorating conditions in 18th century Iceland, revised its policy of isolation and monopoly trade. In 1787, all subjects of the Danish kingdom were allowed to trade with Iceland, and in 1855 trade was opened to all nations. The slow transition to a new economic system, based on an independent modern fishing industry with a specialized labor force, endured for about a century. Economic forces gradually overcame the restrictive regulations in the labor market which usually were abolished only after they had become obsolete.

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²⁵For instance, around 1740 the Danish navy searched Dutch fishing vessels off Iceland in an effort to stop illegal Dutch trade with the Icelanders and found substantial quantities of woollens that the Dutch had purchased from farmers in the northern region during the summer months (Gunnarsson, 1987, pp.71–72).

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