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**PRODUCT MARKET COMPETITION AND ECONOMIC PERFORMANCE  
IN ICELAND**

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## ABSTRACT/RÉSUMÉ

### Product market competition and economic performance in Iceland

This paper discusses the current state of product market competition in Iceland, including the legal and regulatory framework, and suggests directions for further improvement. Given the size of the economy, efficiency considerations dictate high concentration in many markets, and preventing abuse of market dominance is therefore a challenging task. Changes to competition law since the early 1990s have strengthened competitive forces in many sectors of the economy, and proposed amendments to that law would further improve market surveillance. The changes in the regulatory framework for telecommunications have helped vigorous competition to develop in most segments, but there remain problems in pricing of access to the local loop. In the still publicly owned electricity sector, however, competition in generation and sales is so far virtually non-existent despite new legislation. Other policies discussed include agricultural support, policies towards foreign direct investment, and public procurement and provision of publicly funded services.

*JEL classification:* H57, K21, K23, L1, L4, L5, L94, L96

*Keywords:* Productivity, product market competition, competition law, regulatory reform, network industries, public procurement.

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### Concurrence sur les marchés de produits et performance économique en l'Islande

Le présent document de travail examine l'état actuel de la concurrence sur les marchés de produits en Islande, sous l'angle juridique et réglementaire notamment, et suggère un certain nombre d'améliorations possibles. Étant donné la taille de l'économie, des raisons d'efficacité impose une forte concentration sur de nombreux marchés et il est donc d'autant plus indispensable d'éviter les abus de position dominante. Les modifications apportées au droit de la concurrence depuis le début des années 90 ont renforcé les forces concurrentielles dans de nombreux secteurs de l'économie et les amendements proposés permettraient d'améliorer encore la surveillance des marchés. S'agissant des télécommunications, l'évolution du cadre réglementaire a permis le développement d'une concurrence intense dans la plupart des segments du marché, mais des problèmes subsistent en ce qui concerne la tarification de l'accès à la boucle locale. En revanche, dans le secteur de l'électricité qui est encore entre les mains de l'État, la concurrence est pratiquement inexistante jusqu'ici au niveau de la production et de la commercialisation, en dépit des nouvelles dispositions législatives. Les politiques concernant le soutien à l'agriculture, l'investissement direct étranger, les marchés publics et les services publics sont également examinées.

*Classification JEL :* H57, K21, K23, L1, L4, L5, L94, L96

*Mots clés :* productivité, concurrence sur les marchés de produits, lois de la concurrence, réforme de la réglementation, industries de réseau, marchés publics.

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## **Product market competition and economic performance in Iceland**

by

**Thomas Laubach and Michael Wise<sup>1</sup>**

The state of product market competition in Iceland has changed substantially since the early 1990s, driven by the reduction of government involvement in the economy through privatisation and regulatory reform.<sup>2</sup> These developments were stimulated by dissatisfaction with economic performance prior to the 1990s as well as the fulfilment of obligations under Iceland's membership in the European Economic Area (EEA) and, to a lesser extent, the World Trade Organisation (WTO). The privatisation programme got under way in 1991 and, after the completion in 2003 of the sale of the government's holdings in the banking sector, the major remaining state-owned assets are Iceland Telecom and the National Power Company. In terms of the legal environment, the adoption of a new competition law in 1993 marked a turning point, followed by legislation in other areas such as telecommunications and electricity to meet Iceland's obligation, as an EEA member, of complying with relevant EU directives. Efforts to ensure dynamic efficiency through strengthening competitive forces reflect the view that, to maintain its current high level of prosperity relative to other OECD economies, Iceland has to diversify away from traditional, natural-resource-based activities towards faster growing technology and service industries. The aim of this paper is to assess the current state of policies that bear on product market competition and to recommend changes in areas where further improvements are possible.

The institutional framework governing competition legislation and enforcement is the focus of the first section of this paper. The competition law updated in 2000 conforms to the basic competition rules of the EU and provides for a complex, but on the whole effective institutional structure for the enforcement of the law. Enforcement activities in recent years have increasingly focussed on cartels, and in several cases substantial fines have been imposed. Government entities are not exempt from the competition law, and network monopolies and entities related to the government have in the past been the principal targets of actions against dominant firm abuses. The law does not, however, explicitly provide for an order of complete divestiture as a remedy for abuse of dominance, a potential shortcoming. Another area of concern is the *de facto* exemption of agricultural producers from certain aspects of the competition law.

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1. The authors are staff at the OECD. This paper draws on material originally produced for the *OECD Economic Survey of Iceland* published in February 2005 under the responsibility of the Economic and Development Review Committee. The authors are indebted to colleagues in the Economics Department of the OECD for comments and drafting suggestions, in particular Andrew Dean, Jørgen Elmeskov, Jens Høj, Peter Jarrett, Maria Maher and Hannes Suppanz. Special thanks go to Françoise Correia and Mee-Lan Frank for technical assistance.
  2. A discussion of Iceland's early experience with changes in competition policy and the government's role in the economy can be found in OECD (1995), Chapter III.

The following two sections step back from the institutional framework and assess, first, the contribution of policies promoting competition to overall economic performance and thereafter the strength of competitive forces in Iceland. There has been a notable step-up in productivity growth since the mid-1990s, roughly coinciding with the adoption of more pro-competitive policies in a number of areas. R&D intensity is also high by international comparison, and this outcome too might reflect to some extent the positive effects of policies stimulating competition. While concentration is high in many sectors, this is to be expected in a remote economy as small as Iceland's, with a population of barely 300 000. In fact, minimum efficient economic scale dictates high concentration or even monopoly conditions in many sectors. The key challenge for government policy towards competition is to prevent barriers to entry or lack of foreign competition from allowing incumbents to abuse their market dominance, not necessarily to prevent market dominance *per se*. Indicators of Iceland's administrative and economic regulations and of barriers to trade show the pro-competitive orientation of its regulatory policies. The economy is also generally open to competition through international trade and foreign direct investment, except in energy, agriculture and fisheries. Nonetheless, international price comparisons reveal that consumer prices are high, especially so for food, resulting in lower consumer welfare.

The generally pro-competitive stance of regulatory policies in Iceland has contributed to strong economic performance, but a number of challenges remain. The final two sections review regulatory and other policies in several areas where there is scope for further reform. While competition has taken hold in most segments of the telecommunications sector, access pricing still needs to be adjusted to ensure that competitive entry in local voice services is not thwarted by the former monopolist. Technological convergence between telecommunications and information services will also require a reconsideration of current universal service requirements. Competition in the electricity sector, by contrast, is to date virtually non-existent; government divestiture of its generation activities might foster conditions for competition in this market. Government support for agricultural production needs to be reduced so as to lower food prices and free up resources for more productive activities. The exposure of several sectors to competition could be enhanced by further opening to foreign direct investment. Finally, more extensive use of public tendering and outsourcing would likely result in more efficient provision of a number of services currently supplied by the government at both the state and municipal levels.

### **Competition legislation and enforcement**

In 2000, Iceland amended its competition law to ensure greater conformity with the basic competition rules of the EU; these rules have now been adopted by most countries in Europe as national law. The previous law, dating from 1993, did not include a general prohibition against anti-competitive agreements and abuses; however, it did include several valuable tools against government-imposed restraints, subsidies and public-sector monopolisation. Under that law, advocacy for competition policy and reform of regulations were top priorities. The Competition Act adopted in 2000 now supports a stronger programme of enforcement, and draft legislation currently under consideration by the parliament is intended to move even further in this direction.

The current institutional structure for applying the law is complex and perhaps too cumbersome. The executive body is the Competition and Fair Trade Authority (CFTA), while principal decision-making power rests in the five-member Competition Council, whose decisions may be taken to a separate three-member Competition Appeals Committee. All of these bodies are under the jurisdiction of the Minister of Commerce, who is responsible for appointments, with the members of the Appeals Committee being nominated by the Supreme Court. The staff of the CFTA totals 22, of whom nine concentrate on competition cases. (The Competition Act also contains broad authority over consumer protection and marketing abuses, so four work on price surveys and two on unfair business practices.) The CFTA handles several hundred cases each year, and the Council deals with about 40. As cases become larger and more complex, decisions are taking longer and capacity is being stretched. But the CFTA has found ways to

supplement its resources: to carry out a “dawn raid” investigation in a recent major cartel case, the CFTA recruited 60 people from elsewhere around the government.

Issues of political economy have dominated recent controversies about competition in Iceland. Unusually, these topics are included in the competition law. The latest debate has been about concentration in the media and related proposed legislation. Parliament asked for the CFTA’s views on a proposal to ban anyone with a dominant position in any market from having any ownership share in any media company. The CFTA opined that this proposal would limit competition in the media market and hinder entry of new competitors. In an unprecedented showdown, the president refused to sign the legislation passed by Parliament in June 2004, and the government ultimately withdrew it.

A special commission was created by the government in early 2004 to study competition matters, in particular concerns related to ownership concentration, corporate governance and similar issues related to the strength of “financial groups” in the economy. In its final report submitted in September 2004, the commission concluded that there was no reason for new legislation to deal specifically with the formation of conglomerates, but proposed to strengthen the resources of the CFTA so as to bolster its monitoring activities and to give it the power to order structural remedies. In light of this report the government has now proposed changes to the competition law to remove consumer issues from the CFTA’s portfolio and to simplify the enforcement structure and thus reduce the number of administrative steps involved in competition cases. The separate Competition Council would be eliminated; instead, a three-member board would be created to direct the CFTA and take the most important first-instance decisions. The CFTA’s staff, which would no longer work on consumer protection but only on competition issues, would be increased to 17. The commission’s recommendation to grant the CFTA the power to order structural remedies has also been accepted. While the strengthening of the CFTA’s powers and resources for monitoring activities will likely prove beneficial, it will be important to ensure close collaboration between the CFTA and the new entity dealing with consumer affairs to preserve existing synergies between these two areas of surveillance.

The priorities and problems in particular markets are revealed in the enforcement actions taken to date: against cartels in consumer products and abuses of dominance in telecommunications and airlines. The CFTA is examining the state of competition, industry structure, business practices and performance in the distribution and retailing of consumer goods. Noting the experiences of competition enforcers in other Nordic countries, the CFTA is also looking into problems in services such as construction. The law now permits the Council to set priorities in handling cases, rather than deal with complaints in chronological order regardless of their importance.

In the last few years the resources of the CFTA have been devoted to cartels to an increasing extent. The most important case, which was launched by a dawn raid in 2001, has been against price fixing in petroleum product distribution. In October 2004 the Competition Council imposed administrative fines of ISK 2.6 billion (\$38 million, at current exchange rates) on four petroleum companies. The Council has also taken action against cartel agreements in professional services, insurance, and distribution of fruits and vegetables. The latter case resulted in a fine of ISK 47 million (\$681 000); in addition, following an opinion given by the Council, the Minister decided to reduce tariffs on some imported vegetables.

Sanctions may range up to 10% of annual turnover. Criminal penalties, in the form of fines and imprisonment up to two years (or four years in particularly serious cases), have also been possible, in theory. That possibility is now being tested. The Competition Council issued a leniency rule in 2002, which has already been invoked in the oil cartel investigation. The police are pursuing the oil cartel and considering whether to seek criminal penalties against the responsible individuals, many of whom have resigned. This is the first time the police have undertaken a competition case, and the effort has revealed complications in the relationship between the CFTA’s powers and criminal investigative processes.

Concerning dominant firm abuses, the principal subjects of the law have been network monopolies and entities related to the government. Iceland's competition law has an unusually broad range of tools to address these problems, and before the 2000 revision of the law, 60% of the Council's actions concerned public-sector firms. The Council can issue orders against anti-competitive acts by public entities (unless there is specific legislation authorising the conduct) and even against "circumstances that are detrimental to competition" resulting from the actions of government entities. To address cross-subsidy distortions, the Council can order financial or managerial segregation of operations. Over the last 10 years the Council has issued more than 30 decisions requiring separation between monopoly or public-service operations and other, commercial operations. As a last resort, the Council can also set prices and terms. The current law does not explicitly provide for an order of complete divestiture as a remedy for abuse of dominance, but the proposed legislation would change this. The historic incumbent in the telecommunications sector has been the most frequent target of attention, including the biggest fine the CFTA had until then ever sought against abuse of dominance (ISK 40 million; reduced to ISK 10 million on appeal). When the telecoms regulator was set up in 1996, there were some uncertainties and disputes about the application of the sectoral rules and the competition law, but those have been worked out and now reduced to a regulation that assigns jurisdiction. The competition law continues to apply in full in telecoms, as it does in the electric power sector. The Electricity Act contains its own rule about cross-subsidies, empowering the CFTA to require financial unbundling.

As to the rules dealing with mergers, one may be barred if it would obstruct "effective competition" by creating or strengthening a dominant position. In its decision, the Council is to take account of international competition and whether market access is open or obstructed. The 2000 amendments added the test concerning "strengthening" dominance, so the Council could deal with "creeping acquisitions". The Supreme Court had decided that tiny acquisitions would not appreciably increase market power; however, there may be reason for concern about the cumulative effect of piecemeal acquisitions in sectors such as retail distribution, where there are only three significant entities operating in Iceland. The 2000 amendments also added a merger notification requirement. The Council has required divestitures as a condition of approving significant mergers in pharmaceutical distribution and media, and imposed other conditions on mergers in publishing, building materials, poultry processing and fruit and vegetable distribution. Its effort to block a merger in publishing was overturned on appeal, but it successfully stopped a merger in animal feed distribution. In the banking sector, the Council has been critical. Two combinations have been approved. But in its most prominent merger decision, the Council blocked a proposal, backed by ministers, to create a "national champion" by combining two big banks, because the combination would have dominated the market for services to small businesses and individuals (Box 1).

The principal *de facto* exemptions from certain provisions of the competition law protect agricultural producers. Specifically, the agriculture law permits agreements on output prices, and pending amendments will strengthen this system concerning dairy products, even permitting mergers forming a monopoly. The likelihood of a more explicit exemption for this sector is evidently a reaction to the CFTA's enforcement efforts there. Nevertheless, the CFTA and the Council have made extensive use of their authority to engage in public advocacy about the elimination of anti-competitive laws or rules, particularly in the 1990s. More recently, the Council has issued fewer opinions about the possible anti-competitive effects of laws or proposals, but it is making more use of its power to order government entities to correct behaviour that impairs competition.

### Box 1. Market concentration and competition law enforcement

As mentioned earlier, the key challenge for competition policy in Iceland is that minimum efficient scale often implies high concentration. Hence, strict merger control might impose substantial efficiency losses, and competition policy will often have to rely on other, less direct tools for preventing abuse of market power. This box illustrates this general point by briefly discussing three sectors in which actions were taken to address potential or actual concerns about abuse of market dominance. First, the privatisation of the commercial banks and investment funds between 1998 and 2002 was followed by intense consolidation, and some of the proposed mergers raised concerns about excessive market concentration. Second, the insurance sector has been the subject of a high-profile cartel investigation, at the end of which a settlement was reached that ruled illegal several previous industry practices. Finally, following the emergence of three dominant firms in the food retail sector, there have been persistent concerns that high food prices are not only a consequence of agricultural support policies (reviewed later in this paper) but also reflect these firms' abuse of their dominant positions.

At the beginning of 1998, the Icelandic banking sector consisted of three commercial banks, two of which (Landsbanki and Bunadarbanki) were publicly owned; 29 relatively small savings banks that initially had a co-operative ownership structure, which over the years had become increasingly complex (OECD, 1998); and five investment funds, four of which were publicly owned and one, Kaupthing, which was owned by the savings banks. In January 1998 the government merged three of its four investment funds, and over the next two years sold its entire stake in the resulting two funds. It also began selling part of its stakes in the two commercial banks it owned. In May 2000 the CFTA approved the merger of the private commercial bank, Islandsbanki, with the larger investment fund, FBA, which had been created in 1998. In December 2000, however, the CFTA ruled against the merger of the two commercial banks in which the government held a majority stake, on the grounds that the proposed merger would damage competition. The combined share of the two banks in total deposits would have been 53%. The government then sold its remaining stakes in these two banks in several stages ending at the beginning of 2003. Meanwhile, the savings banks had offered 44% of Kaupthing to the public through an IPO on the Icelandic Stock Exchange in October 2000. In May 2003 the CFTA approved the merger of Bunadarbanki and Kaupthing that created the largest commercial bank in Iceland, although the other two commercial banks are not much smaller in terms of total assets. Competition in the investment banking segment seems to be fierce among the three banks, and the spread between lending and borrowing rates has narrowed fairly steadily over recent years.<sup>1</sup> There are, however, concerns that competition in lending to small and medium-sized enterprises is less vigorous. A related concern is that consolidation among the savings banks, which should be obvious competitors in this segment, has hardly started, with 24 savings banks remaining, none of which has so far taken advantage of a 2001 law that aims to facilitate their incorporation to solve the problems resulting from their unclear ownership status.

The non-life insurance market in Iceland has for some time been dominated by three companies, whose combined market share in total written premiums in 2002 stood at 95%. In 1997 the CFTA launched an investigation with a dawn raid on the offices of the Insurance Association of Iceland, which the CFTA suspected was used by these three insurers to engage in practices harmful to competition. After seven years, the case was settled between the CFTA and the Insurance Association by the latter agreeing to substantial restrictions on its practices. In the past, the CEOs of all three insurance companies had also served as members of the Association's board. Following the settlement, at most one CEO may serve at any point in time as a board member. The investigation also found that the Association's board meetings had been used to share information that could be harmful to competition, and that it had filed spurious administrative cases against new entrants with the Financial Supervisory Authority, and these practices too were explicitly prohibited in the settlement.

As in several other OECD countries, concentration in the Icelandic food retail sector has increased substantially. Following the emergence of three large food retailers in the late 1990s with a combined market share of about 85%, complaints about high food prices became widespread. While the retail chains argued that high retail prices were a result of high wholesale prices, suppliers denied this charge. In response, at the beginning of 2000 the Minister for Industry and Commerce asked the CFTA to prepare a report on this matter. The report, which was published in April 2001, concluded that over the period 1996-2000 food prices at the retail level had increased by about 15% relative to overall consumer prices, and that only half of this increase could be attributed to increases in suppliers' prices. As a consequence of this finding, the CFTA issued a code of practice for food retailers. Although complaints initially subsided, they have resurfaced of late. The CFTA is currently focusing on concerns related to vertical agreements such as exclusive relationships by which the retail chains may be abusing their market power *vis-à-vis* their suppliers.

1. Lending rates are computed as interest received from credit institutions, on loans and advances and on debts evidenced by certificates as a percentage of the corresponding assets. Borrowing rates are computed as interest payable to credit institutions and on deposits, bonds and subordinated liabilities as a percentage of the corresponding liabilities. The spread so defined declined from 4% in 1997 to 2.5% in 2003. All data are from the Financial Supervisory Authority.

## Competition and macroeconomic performance

Iceland's economic performance improved considerably during the 1990s. Labour productivity growth since the mid-1990s has been comparable to that in its fellow Nordic countries and the United States, whereas earlier it was noticeably lower (Table 1). While over the entire period 1990 to 2003

GDP per capita rose at a slower pace in Iceland than in either the European Union<sup>3</sup> or New Zealand — another small, remote economy — from the mid-1990s on it has outperformed both. GDP per capita is now at levels similar to the other Nordic countries, excluding oil-rich Norway. However, this reflects in part the unusually high rate of labour force participation; the level of GDP per hour worked is considerably below those of Sweden, Finland and Denmark, suggesting that a sizeable share of employment is in low value-added occupations. Nonetheless, the adoption of strongly pro-competitive policies since the early 1990s and the productivity acceleration shortly thereafter suggest that those policies had a positive effect on aggregate performance; indeed, a number of recent studies have documented important linkages in OECD countries between policies affecting competition at the industry level and economic performance (see *e.g.* OECD, 2002).

The recent theoretical and empirical literature has emphasised that most of the benefits of competition result from gains in “productive” or “dynamic efficiency”, which can be broadly defined in terms of productivity increases through innovations (Ahn, 2002). Thus, possibly the most important channel through which a pro-competitive policy orientation would raise economic performance is by raising innovative activity and adoption of new technologies. Both the competitiveness of the economic environment and innovative activity are concepts that are extremely difficult to measure empirically. The latter is sometimes approximated by economy-wide spending on research and development (R&D).

Table 1. Output, employment and productivity

	Iceland	Norway	Sweden	Finland	Denmark	New Zealand	European Union <sup>4</sup>	United States
<b>Average GDP growth, 1990-1995</b>	<b>0.3</b>	<b>3.8</b>	<b>0.7</b>	<b>-0.9</b>	<b>2.0</b>	<b>3.0</b>	<b>1.6</b>	<b>2.4</b>
<i>of which:</i>								
Productivity <sup>1</sup>	<b>-0.3</b>	3.5	2.1	2.5	1.9	0.4	2.4	1.2
Hours	<b>0.6</b>	0.3	-1.3	-3.4	0.0	2.6	-0.9	1.2
<i>of which:</i>								
Hours per employed	<b>-0.1</b>	-0.2	1.0	0.1	0.4	0.7	-0.5	0.2
Unemployment <sup>2</sup>	<b>-0.4</b>	0.1	-1.3	-2.7	0.1	0.3	-0.7	0.0
Labour force	<b>1.2</b>	0.4	-1.1	-0.8	-0.5	1.6	0.2	1.0
<b>Average GDP growth, 1995-2003</b>	<b>3.8</b>	<b>2.8</b>	<b>2.6</b>	<b>3.5</b>	<b>2.0</b>	<b>2.8</b>	<b>2.1</b>	<b>3.2</b>
<i>of which:</i>								
Productivity <sup>1</sup>	<b>2.5</b>	2.4	2.3	2.6	1.4	1.3	1.5	2.2
Hours	<b>1.3</b>	0.4	0.2	1.0	0.7	1.5	0.6	1.0
<i>of which:</i>								
Hours per employed	<b>0.0</b>	-0.7	-0.5	-0.5	0.2	-0.2	-0.6	-0.3
Unemployment <sup>2</sup>	<b>0.2</b>	0.1	0.4	0.9	0.1	0.2	0.3	-0.1
Labour force	<b>1.1</b>	1.0	0.4	0.6	0.3	1.5	0.9	1.3
<i>Memorandum items:</i>								
GDP per capita <sup>3</sup>	<b>78</b>	98	75	73	81	62	71	100
Growth 1990-95, average p.a.	<b>-0.7</b>	3.2	0.1	-1.4	1.6	1.8	1.1	1.4
Growth 1995-2003, average p.a.	<b>2.8</b>	2.2	2.4	3.3	1.7	2.0	1.8	2.0
GDP per hour <sup>3</sup>	<b>70</b>	125	86	82	94	63	92	100

1. Real GDP per hour.

2. A positive sign indicates that unemployment has declined and helped to boost output growth.

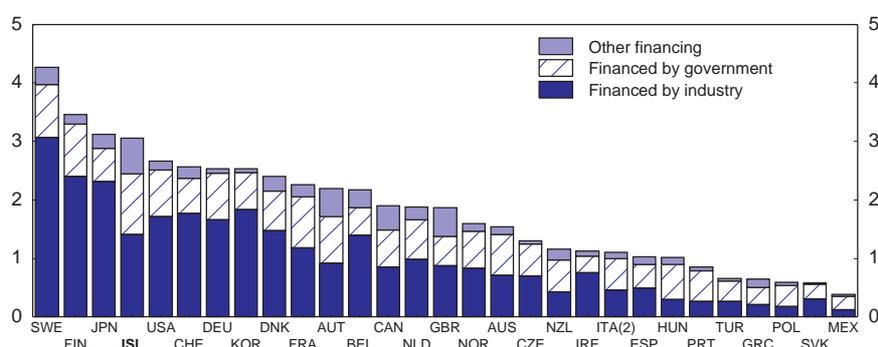
3. Real GDP; 2002 levels, PPP based, USA = 100; annual average.

4. Weighted average using GDP weights; Austria and Luxembourg excluded.

Source: OECD productivity data base ([www.oecd.org/statistics/productivity](http://www.oecd.org/statistics/productivity)) and Economic Outlook 76 database.

3. European Union here refers to the 15 member countries prior to the expansion of May 2004.

Figure 1. Gross domestic expenditure on R&D as a percentage of GDP  
2002<sup>1</sup>



1. Belgium, Denmark, Greece, Iceland, Ireland, Italy, Mexico, Netherlands, New Zealand, Norway, Portugal, Sweden: 2001; Australia, Switzerland: 2000.
2. The breakdown between private and public expenditure for Italy is unavailable. The 2001 figure is estimated using weights from 1996, which was the latest year for which the breakdown is available.

Source: OECD, Main Science and Technology Indicators, 2004/1.

Concerning the competitive environment, quantitative indicators measuring the extent of regulation affecting competition have been developed at the OECD which, though not measuring competitive forces directly, have the advantage of focusing on their policy determinants; these indicators will be discussed in more detail below. The empirical evidence suggests that indeed a more competitive regulatory environment leads to higher R&D intensity (Nicoletti *et al.*, 2001), and conversely that burdensome regulatory environments slowed productivity growth in the 1990s in a number of industrialised countries by impeding the adoption of information technologies (Gust and Marquez, 2004).<sup>4</sup> It is worth noting that by the standard of R&D intensity Iceland ranks high among OECD Member countries (Figure 1). This observation is consistent with generally strong competitive forces in Iceland, causing firms to invest in knowledge capital to avoid losing market share in the longer run. The following section looks at various indicators of the strength of these forces.

### The strength of competition in Iceland

One frequently used indicator for the strength of competitive forces in a particular industry is the degree of concentration as measured by the Hirschman-Herfindahl index (HHI). Table 2 presents such indices for 50 industries based on surveys conducted in 1993 and 1999 by the CFTA. High market concentrations are found mostly in industrial and construction materials and in network industries, although there are also examples elsewhere (alcoholic beverages, tobacco and airlines). Of the 29 industries included in both surveys, concentration increased in 16 and declined in five; the eight remaining industries all stayed monopolies. In some instances the HHI increased in industries in which there are indeed concerns about a decline in competitive behaviour, such as in food retailing, which will be discussed below. Similarly, the decline in the index for telecommunications coincided with strengthened competition in that sector. However, limitations to the use of the HHI as a measure of the strength of competition need to be acknowledged. Although in general collusion is probably harder to sustain the larger the number of competitors in a market, it is nonetheless possible, for example through geographic

4. The determinants of business innovations more generally are examined in OECD (2005).

Table 2. Hirschman-Herfindahl indices of turnover of domestic producers in 1993 and 1999<sup>1,2</sup>

	1993	1999
<b>Food, wholesale and retail</b>		
Fish and seafood production	0.02	0.25
Food sales	0.07	0.33
Slaughtering and meat processing	0.11	0.17
Confectionery	0.13	...
Seafood exports	0.16	0.35
Milk, wholesale	0.20	0.30
Fishmeal	0.39	0.34
Non-alcoholic beverages	0.46	0.33
Alcoholic beverage sales (wholesale and retail) <sup>3</sup>	1.00	1.00
Cheese and butter, wholesale	1.00	1.00
<b>Other final goods</b>		
Computer hardware and software sales	0.10	0.19
Glass products	0.11	...
Printing	0.15	0.25
Publishing houses	0.17	0.26
Automobiles and parts sales	0.17	0.15
Fishing gear	0.18	...
Petroleum products	0.31	0.32
Drugs, wholesale	0.33	
Pharmaceutical production and wholesale		0.17
Magazine publishing	0.35	0.69
Newspaper publishing	0.40	0.52
Corrugated and other paper	0.43	0.44
Tobacco, wholesale	1.00	1.00
<b>Industrial and construction materials</b>		
Plastic film and mouldings	0.06	...
Building materials (retail)	0.12	0.44
Paint and varnish	0.26	...
Concrete	0.37	...
Aluminium	1.00	0.68
Ferrosilicon	1.00	1.00
Diatomite	1.00	1.00
Synthetic fertilizers	1.00	1.00
Cement	1.00	1.00
Rockwool	1.00	1.00
<b>Financial services</b>		
Pension funds	0.04	0.16
Insurance	0.23	
Life insurance		0.32
Non-life insurance		0.22
Banks and savings institutions	0.23	0.20
<b>Telecommunication and postal services</b>		
Radio and television broadcasting	0.38	...
Post, telephone and telecommunications	1.00	
Post and courier activities		0.94
Telecommunications		0.80
<b>Energy</b>		
Domestic generation and distribution of hydro- and geothermal energy	...	0.27
Electricity distribution	0.27	
Geothermal energy distribution	0.43	...
Electricity generation	0.96	...
<b>Transport</b>		
Travel agencies	0.07	0.27
Shipping	0.49	
Shipping and land transport		0.36
Airlines	0.64	0.75
Motor vehicle inspection	1.00	...

Note: ... = unknown (sector not covered in survey).

1. Where market share information on firms was not available, it was assumed that they are all of equal size, implying that the calculated indices are lower-bound estimates.
2. The Hirschman-Herfindahl index is the sum of the squared shares of the market of all producers in the market. It is bound from above at unity for a monopoly and zero for atomistic competition.
3. 1999 figure refers to retail only.

Source: Competition and Fair Trade Authority.

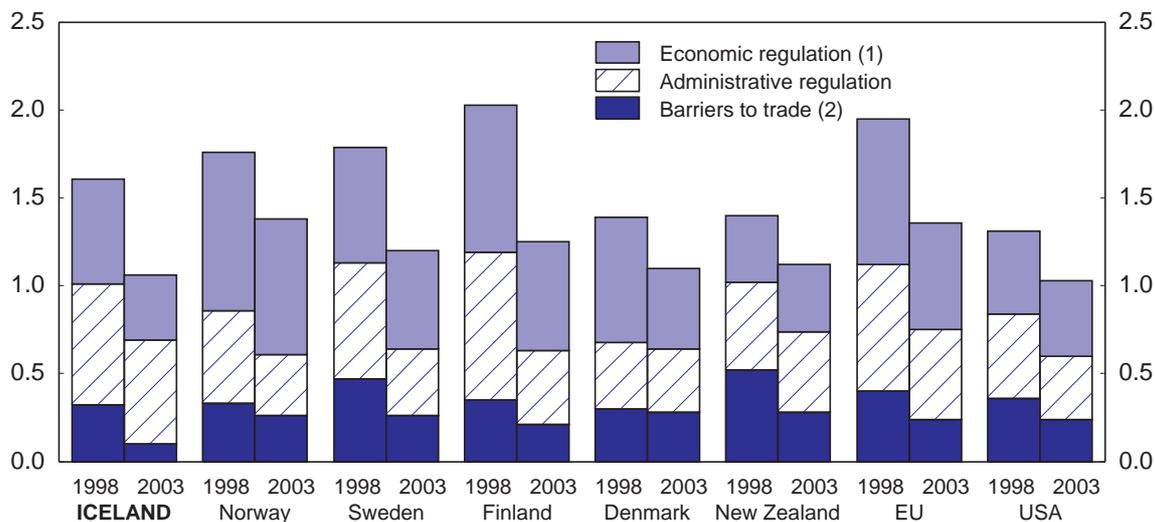
segmentation, whereas competition even among two rivals can be fierce. More fundamentally, the definition of markets in these surveys relies primarily on industrial classifications used by the statistical agencies and does not correspond to the “relevant market” concept according to antitrust principles.<sup>5</sup> Nonetheless, these data suggest that high market concentration might be a concern in several sectors, as would be expected given Iceland’s remoteness and the small size of its economy.

While high market concentration increases the risk of abuse of market dominance, this risk can be substantially reduced through regulatory policies that encourage market entry. The following section discusses these policies for some sectors in detail. As mentioned earlier, the OECD has developed a set of indicators to provide a quantitative summary of the extent of regulation affecting competition, which captures an important element of the unobservable concept of competitive forces.<sup>6</sup> These indicators can be further decomposed in an economically informative way into indicators of economic regulation, such as barriers to competition and government ownership, of administrative regulation and of barriers to foreign trade and investment. For the economy as a whole these indicators show that Iceland is quite open to competitive forces and has been following the OECD-wide trend over recent years towards further liberalisation (Figure 2). Some problems persist in the area of administrative burdens in connection with starting a new business and complying with regulatory requirements; these burdens have not diminished and remain relatively high compared to other Nordic countries and the United States. By contrast, barriers to trade, including tariffs and foreign ownership restrictions, are in general low by international standards, although there are a few exceptions as noted below. The degree of openness is especially high in terms of non-tariff barriers, but less so in terms of tariffs (Figure 3). Tariffs on agricultural products account for most of those barriers: the average MFN tariff rate for agricultural products in 1999 was 10.8%, more than four times the average rate for manufactured goods. Moreover, since domestic production is non-existent for many items, certain indirect taxes, such as the excise tax on vehicles, act like a tariff.

Despite Iceland’s remoteness, in many sectors having its markets open to trade is likely an important channel to restrain those of its firms that have significant market shares from abusing their dominance. As shown in panel A of Figure 4, the level of import penetration in Iceland, defined as nominal imports as a share of total demand, has been close to the OECD average during the period 1998 to 2003, and it has increased over the period 1993 to 2003 in line with most other OECD economies as well. In view of the size of its economy, Iceland’s import share might be expected to be substantially above the OECD average; at the same time, its remoteness may counteract this effect. Panel B of the figure shows residuals from a regression that relates import penetration in OECD Member countries to the logarithms of their GDP per capita and population as well as a measure of transportation costs to control for distance

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5. The data in the surveys reflect the distribution of turnover in Iceland as a whole, irrespective of the geographical scope of the markets concerned. The high level of the indices for aluminium, ferrosilicon and diatomite, for example, is not particularly worrisome, given that these industries serve almost exclusively foreign markets. Moreover, the figures in the surveys reflect the shares of turnover of all registered companies in each sector, but do not in general take account of the fact that in some instances there are ownership relations between some of them. A final *caveat* is that the two reports were based partly on sample surveys, where the turnover of companies not included in the sample was treated as the turnover of a single company. To the extent that the fraction of companies not included in the sample is substantial, this imparts an upward bias to the indices.
  6. The indicators are developed in Nicoletti *et al.* (1999), and are based on detailed data collected by the OECD from national sources. They have recently been updated in Conway *et al.* (2005). Summary indicators are computed aggregating individual regulations with weights derived from factor analysis. The resulting country rankings are robust to changes in the weighting procedure.

Figure 2. **Indices of regulations affecting product market competition**  
0-6 indicator from least to most restrictive

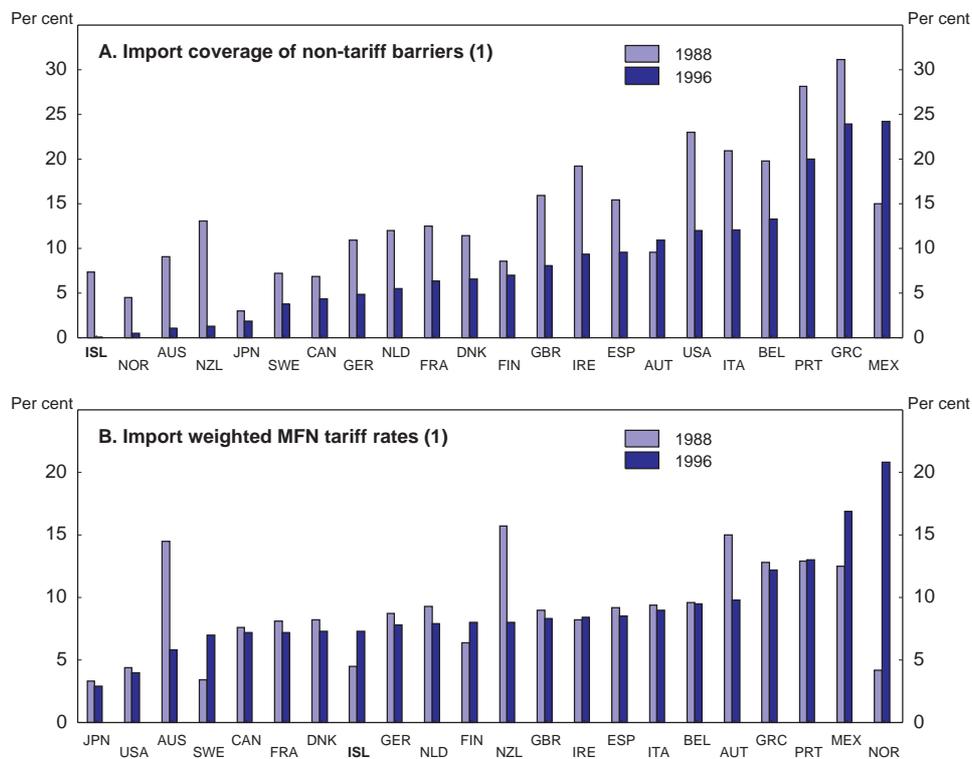


1. Includes barriers to competition and state control.

2. Includes trade and FDI restrictions.

Source: OECD calculations.

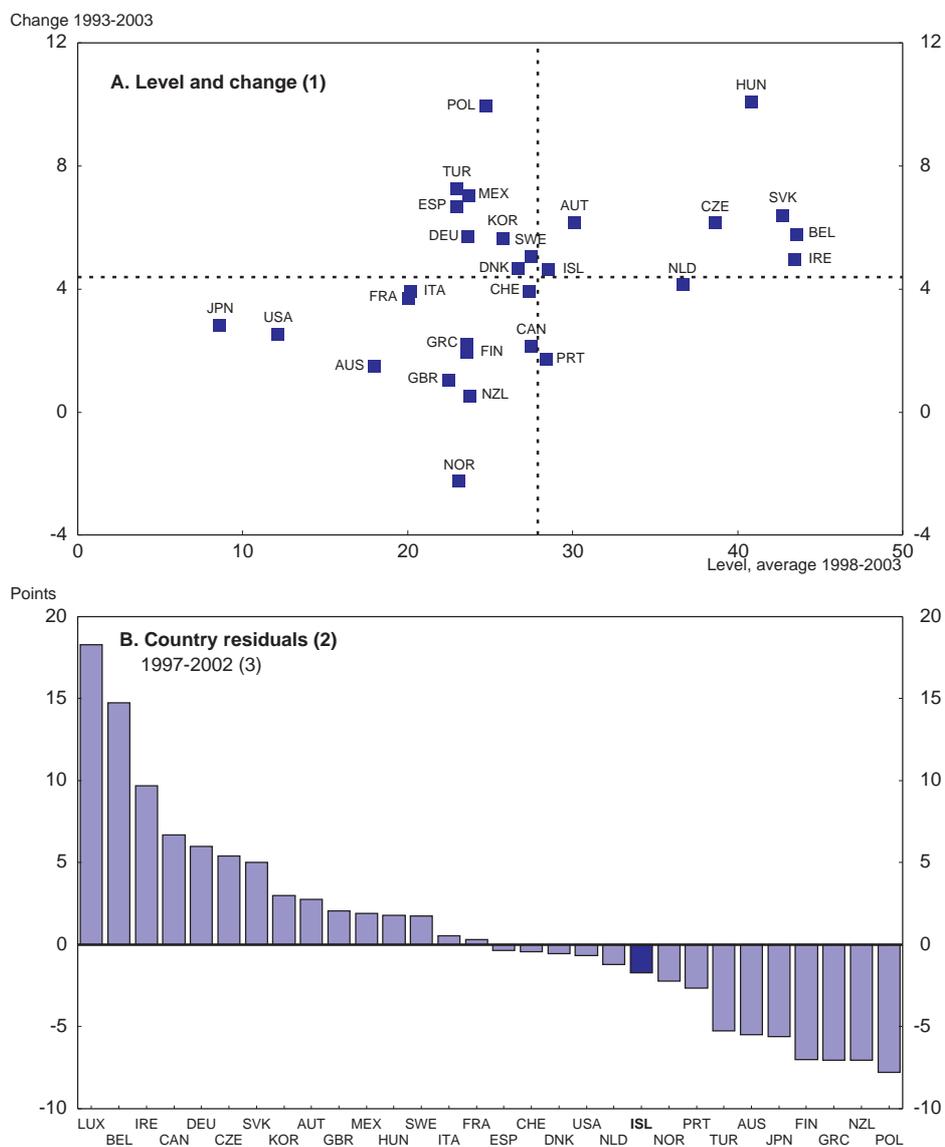
Figure 3. **Openness indicators in the OECD area**



1. OECD calculations based on UNCTAD data. Aggregation from 2-digit level tariffs to national level using sectoral value-added weights.

Source: UNCTAD, OECD calculations.

Figure 4. Import penetration

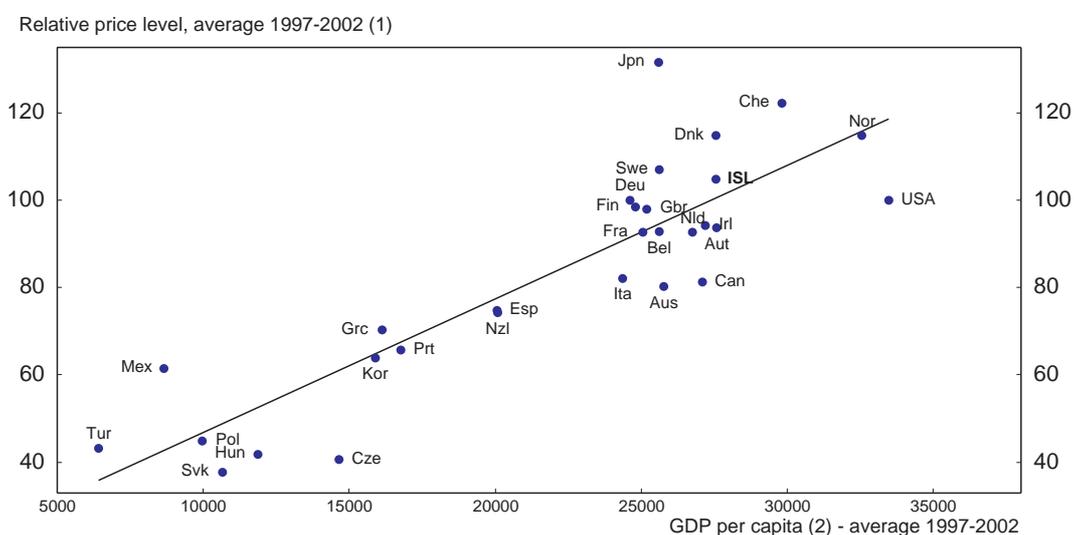


1. Aggregate nominal imports relative to total demand.
2. 30 countries.
3. Or latest year available.

Source: OECD Economic Outlook 76 Database.

effects.<sup>7</sup> These three factors combined explain about two thirds of the observed cross-country variation in import penetration. As shown in Panel B, Iceland's import penetration of about 28% is about 3 percentage points lower than the regression would predict. Ultimately the welfare effects of increased competition are achieved by a reduction in consumer prices relative to what they would be otherwise. Direct comparisons of prices and price levels across countries can therefore provide indications as to a potential lack of competitive forces. It is by now well known that price levels across nations, after controlling for net indirect taxes, are correlated with per capita incomes, as predicted by the Balassa-Samuelson theorem. The estimated elasticity of the price level with respect to per capita GDP in the regression shown in Figure 5 is 0.8. According to this relationship, prices in Iceland seem to be slightly higher than predicted, although

Figure 5. Relative price levels and GDP per capita



1. Purchasing power parities divided by the exchange rate, USA = 100.
2. In US\$, converted with PPPs.

Source: OECD Economic Outlook 76 Database.

7. The regression results for the sample of 30 countries are:

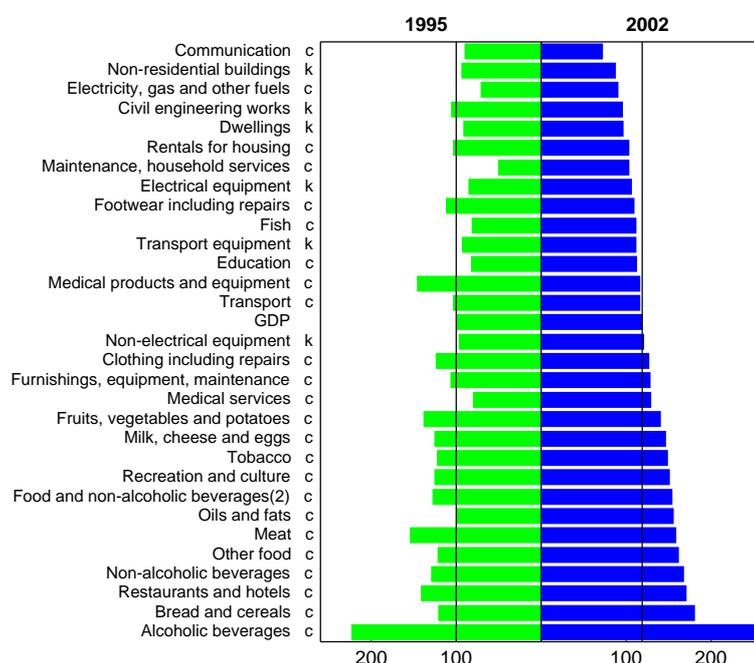
$$IPR = 1.732 - 0.041 \cdot \log( GDPCAP ) - 0.048 \cdot \log( POP ) - 0.254 \cdot CIFFOB$$

(40.2) (-16.6) (-33.1) (-19.5)

S.E.: 0.0097 R2: 0.675 (t-statistics in parentheses)

where IPR stands for nominal aggregate imports relative to total demand, GDPCAP is GDP per capita (USD, market exchange rates), POP is population and CIFFOB is the ratio of CIF-to-FOB value of total imported goods (proxy for transportation costs). All variables are average 1997 to 2002 values.

Figure 6. **Comparative price levels of final expenditure on GDP**  
EU15 = 100, disaggregated categories<sup>1</sup>



1. C signifies a component of the aggregate "Final consumption by households", K signifies a component of the aggregate "Gross fixed capital formation".
2. Includes the items bread and cereals; meat; fish; milk, cheese and eggs; oils and fat; fruits, vegetables and potatoes; other food; and non-alcoholic beverages, which are also shown in the figure.

Source: Eurostat.

less so than in several other Nordic countries, but in contrast with New Zealand, another small, remote economy.<sup>8</sup> Given that Iceland's GDP per capita is only moderately higher than the European Union average, a detailed comparison of price levels in Iceland for a number of final expenditure categories against their EU averages is instructive (Figure 6). There are only few categories for which prices in Iceland are below the EU average, notably residential and non-residential buildings, civil engineering works and communications. Energy is also relatively cheap, although this should not be surprising, given Iceland's abundance of renewable energy sources. In fact, the relative affordability of energy in Iceland seems to have diminished since the mid-1990s. However, it is possible that high prices in general in Iceland compared to the EU reflect at least in part currency overvaluation unrelated to the state of product market competition. It is deviations of Icelandic prices relative to foreign (say, EU) prices beyond the average divergence that are of interest. By this measure, the prices of virtually all food items relative to the overall price level have remained high and in several cases have increased since 1995; relative prices of a number of services have also remained high.

8. The deviations of actual exchange rates from purchasing power parity shown in Figure 5 could in principle reflect phenomena in currency markets rather than the state of product market competition. However, by focussing on six-year averages the risk of distortions due to short-lived exchange rate fluctuations unrelated to fundamentals is mitigated. It is noteworthy that most of the countries above the regression line run persistent current-account surpluses and in some cases have large positive net foreign asset positions; Iceland is an exception.

## **Regulatory policies in network industries**

The downward trend in the indicators of the strictness of product market regulation presented above suggests that on the whole economic policies in Iceland have moved in the direction of market liberalisation. While these indicators can yield some aggregate perspective on the macroeconomic effects of economy-wide deregulation, the effects of regulatory policies within specific markets on prices and efficiency are often easier to measure and more telling as to shortcomings in competition. Lessons drawn from these experiences can be valuable in considering the potential effects of future efforts at regulatory reform. In many industrialised countries industry regulation was initially intended to increase welfare by offsetting monopoly power, where the range of activities subject to natural monopoly was believed to be substantial. In the meantime it has been realised that regulations often had the effect of protecting monopoly status by limiting competition (Winston, 1998), and that many activities believed to be natural monopolies are in fact competitive, or may have become so due to technological developments.

This section examines recent developments in regulatory policies in the telecommunications and electricity sectors, in which competitive and natural monopoly activities are intertwined. These are the sectors in which government regulation continues to play an important role. By contrast, regulation in other sectors is light by international standards. In the retail sector, for example, opening an outlet requires little administrative burden, regardless of the size of the outlet, and shop opening hours are nearly unrestricted. Similarly, given that Iceland does not possess a railway network, the need for regulation in the area of transport is lower than in other OECD Member countries. In air transport there is a surprisingly large number of operators, given the size of the market, with two airlines offering scheduled international flights and five domestic service. There are no foreign carriers offering regular service to Keflavik; however, given the absence of discrimination in landing fees and ground handling or limitations on slots, this probably reflects other carriers' assessment that it is not profitable to compete on such routes.

In many respects, regulatory policies towards network industries in Iceland have followed a similar course over recent years to those in other OECD countries. The development of legislation in this area reflects the obligation under Iceland's EEA membership to implement the relevant EU directives, notably regarding the separation of competitive from natural monopoly activities. Whereas substantial progress has been made towards introducing competition in telecommunications, several issues regarding access pricing remain to be solved, and the privatisation of the state-owned former monopolist remains to be completed.<sup>9</sup> By contrast, the energy sector is by and large divided between one dominant, state-owned firm in generation and transmission and another in distribution. Although legislation conforms to EU directives, so far there is no prospect of competition emerging in any segment of this market. Further steps toward structural separation of generation from transmission activities and toward encouraging competition in generation are needed.

### ***Telecommunications***

The current legal framework governing the telecommunications sector consists of the Law on Telecommunications and the Law on the Post and Telecom Administration and has (with some modifications) been in place since the beginning of 2000.<sup>10</sup> It is designed to promote competition and to ensure conformity of Icelandic law with the European Union directives, and establishes the Post and Telecom Administration (PTA) as the industry regulator. Competition in the Icelandic telecommunications sector started in May 1998, when Tal began offering mobile phone service and quickly captured a

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9. An extensive discussion and analysis of the issues involved in introducing competition in telecommunications markets is provided by Laffont and Tirole (2000).

10. See Annex 1 for a more detailed description of the current legal framework in the telecommunications sector.

substantial market share. Entry picked up in early 2000, when within six months of the new telecoms legislation the PTA issued four new mobile phone licenses, bringing the total number of licensees to seven. This period of rapid market entry was followed by a series of mergers, leaving the telecommunications market divided between two competitors, the incumbent Iceland Telecom (Síminn) and Og Vodafone.<sup>11</sup> The latter's market share in the entire telecommunications market at the end of 2003 was above 20%. However, its presence remains skewed towards the mobile phone sector, where its share in subscriptions is 36%, and its share in revenues from end-user fees nearly 30% (Table 3). By contrast, of the approximately 135 000 standard (PSTN) lines in the fixed telephone network, only 10 300 were operated by Og Vodafone, leaving the incumbent Síminn with a market share in fixed lines of about 92%.<sup>12</sup> The emergence of competition in telecommunications appears to have had a rapid effect on prices for telecommunication services paid by households. From the beginning of 1998 through the end of 2000 prices declined over 20% relative to the all-items CPI (Figure 7). Since then, relative telecommunications prices have remained roughly unchanged. By comparison, the CPI for telephone services in the United States declined by approximately 9% between early 1998 and the end of 2000 relative to the all-items CPI, and another 10% since then, indicating that the cumulative relative price decline in Iceland over this period is about as large as in a country regarded as being at the technology frontier and enjoying strong competition in this area. By international standards, residential and business phone charges in Iceland are low (Figure 8), which is impressive, given the high fixed costs due to a widely dispersed population.

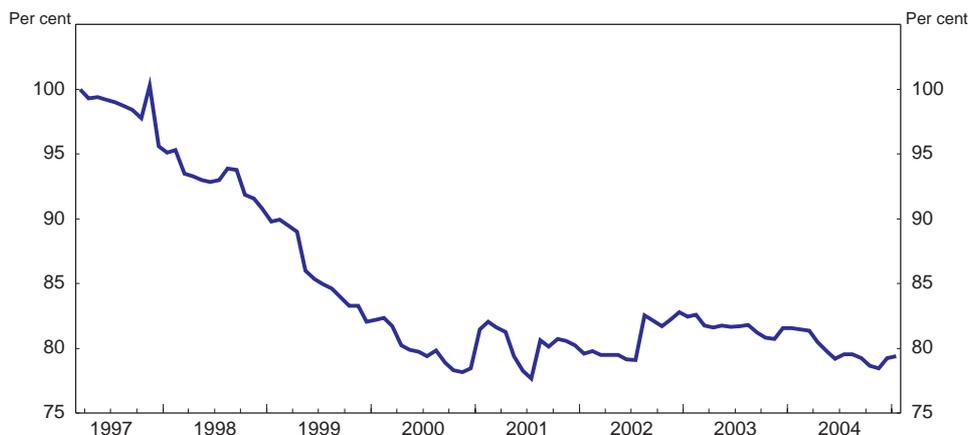
Table 3. Telephone lines and cellular telephones

	2000	2001	2002	2003
Fixed network				
Standard lines	141 330	139 300	132 353	135 402
ISDN	17 717	18 128	16 777	16 234
ADSL subscriptions	2 591	10 618	23 484	40 152
Cellular telephone subscriptions <sup>1</sup>	187 628	221 231	235 338	279 670
Per 1 000 inhabitants				
Standard fixed lines	499	486	459	466
ADSL subscriptions	8	37	82	138
Cellular telephone subscriptions <sup>1</sup>	662	772	817	962
Market shares of Siminn (per cent)				
Fixed network national calls	n/a	92	87	80
Fixed network international calls	n/a	85	81	79
Cellular telephone subscriptions <sup>1</sup>	70	67	64	64

1. GSM subscriptions.

Source: Post and Telecom Administration.

11. A recent new entrant in the market for both national and international calls, Margmidlun, was taken over by Og Vodafone in August 2003.
12. As shown in Table 3, Síminn's market share in call volumes is only 80%, implying that Og Vodafone's customers are on average heavier users of telephone services.

Figure 7. Relative price of telecommunication services<sup>1</sup>

1. Relative to CPI all items.

Source: Post and Telecommunication administration, OECD, Main Economic Indicators.

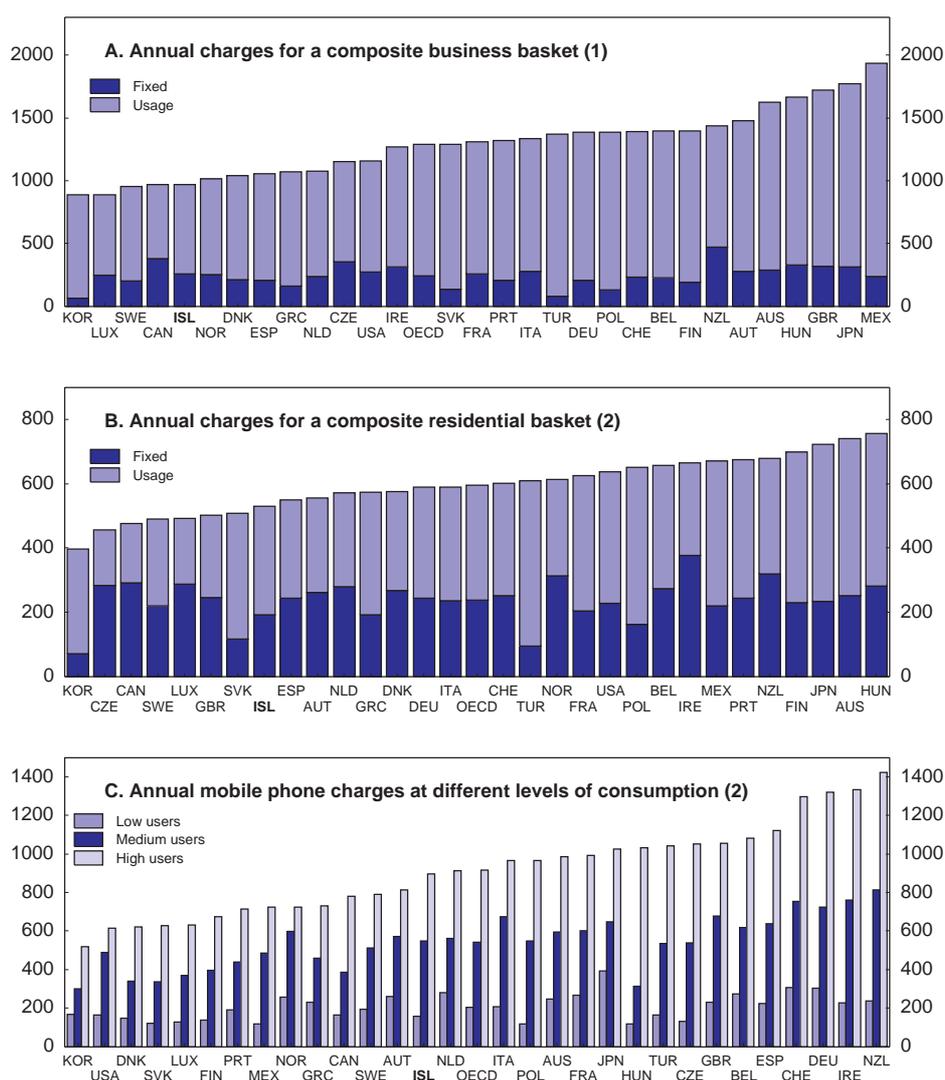
In November 1997 the then-monopolist abolished domestic long-distance rates by making the whole country one local call zone. Hence, there are only two areas of competition in fixed-network telephony, carrier selection for international calls and selection of local service provider. Effective March 2000 the PTA mandated the use of carrier selection and pre-selection for international calls in the residential market. These facilities allow the selection of a carrier for each call or the automatic routing of all calls to a selected carrier. At present, Síminn's share in international call volumes is about 80%. Carrier selection, like inter-connection with mobile networks, raises the issue of fees charged by the local-service incumbent on a per-call basis, but leaves the incumbent in control of the local loop. Termination fees are low relative to the retail price, creating incentives for competition in the form of mobile networks and wholesale competition in international calls.<sup>13</sup> However, termination fees for out-of-network calls terminating on Og Vodafone's fixed and mobile networks are considerably higher than fees for such calls terminating on Síminn's networks.<sup>14</sup>

Local-service competition requires the incumbent to lease (possibly unbundled segments of) the local loop to the entrant unless competition is facilities-based, *i.e.* the entrant duplicates the incumbent's local loop. Outside of the Reykjavik area there seems to be little potential for facilities-based competition due to low population density. At the moment, the vast majority of local loops are owned by Síminn, but Og Vodafone has some local loops that it offers to big clients. There is also a fibre-optic network in the Reykjavik area belonging to the municipality-owned Reykjavik Energy, but this has so far been used only for Internet access and not yet for telephony. Most of the local loops operated by Og Vodafone are leased from Síminn. As regulation of access pricing to the local loop is still developing, the inter-connection agreement between Og Vodafone and Síminn provides at the moment the only opportunity to study local-service competition within the current framework.<sup>15</sup> Access prices under the agreement are set by the

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13. Síminn's fees for fixed interconnection, which are ISK 0.44 (0.62¢) per termination minute during peak hours and ISK 0.26 (0.36¢) during off-peak hours plus ISK 0.68 (0.95¢) connection fee per call, are substantially lower than its retail price of ISK 3.55 (5¢) for the connection and ISK 1.75 (2.45¢) per minute.
14. Termination fees on mobile networks are still considerably higher than those on fixed networks: Síminn charges ISK 8.92 (12.5¢) for mobile termination, and Vodafone ISK 12.10 (17¢).
15. For a recent survey of various approaches to access pricing see Vogelsang (2003).

PTA based on Síminn's historical cost. The current pricing structure discourages local-service competition, as the monthly leasing fee of the local loop is only marginally lower than Síminn's subscription fee, leaving only slender margins to cover entrants' costs.<sup>16</sup> The authorities should consider whether the current narrow margin between the incumbent's subscription fee and leasing fees are actually warranted by the cost structure of the industry and should aim to reduce leasing fees relative to subscription fees to foster entry into local service.

Figure 8. Telecommunications prices in OECD countries  
US dollars, August 2004



1. Excluding VAT.

2. Including VAT.

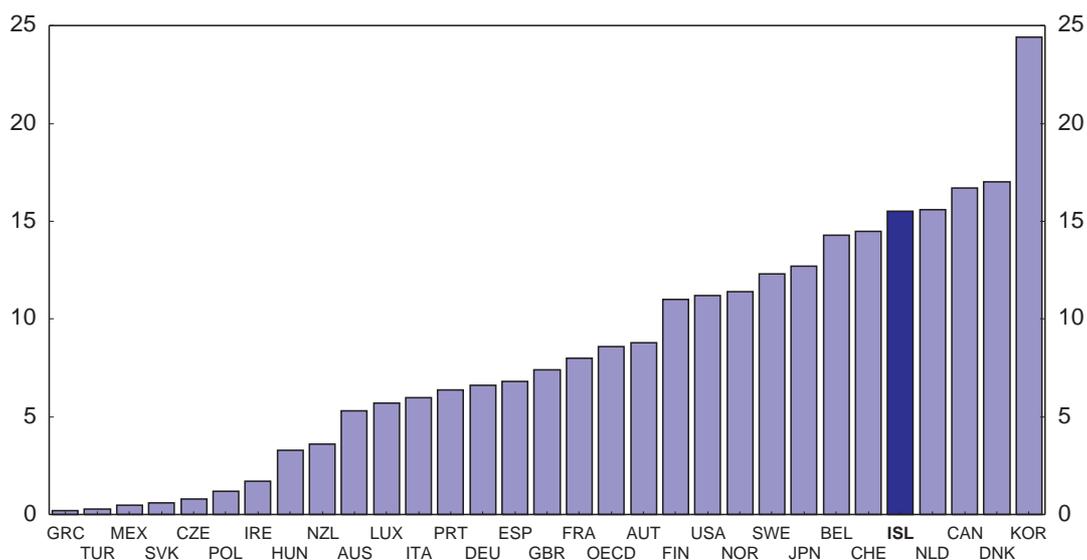
Source: OECD, Communications Outlook 2005 (forthcoming).

16. The monthly leasing fee for the local loop is ISK 825 (\$11.56, at current exchange rates) without data transmission, and ISK 1097 (\$15.36) including data transmission, compared to Síminn's monthly subscription fee of ISK 1 025 (\$14.36) excluding VAT.

In a sparsely populated country like Iceland, universal service obligations are often imposed at the cost of substantial cross-subsidisation with its implied inefficiencies. Universal service obligations raise the fixed-cost element of a network, and there is a debate whether this cost increase should be fully financed by raising line-rental charges. Moreover, as more segments of the telecommunications market are opened to competition, cross-subsidisation offers competitors opportunities to enter the profitable segments, leaving the subsidised ones to the incumbent. The Law on Telecommunications imposes several universal service obligations. The PTA may stipulate that a licensee must provide voice telephony services for the disabled or users with special social needs as well as data transfer services at a speed of 128 Kb/second. It may decide the maximum prices and minimum quality of universal services. If a licensee finds that such services are operated at a loss or are unprofitable, the licensee may request compensation from the PTA, which in turn can be financed by a universal service charge levied on all network operators in proportion to their operating income from their licensed operations. Currently, only Síminn is required to provide universal service. Its operating license also stipulates that it has to offer services in areas that cover 98% of the population, whereas Og Vodafone's license requires it to offer services in areas covering 80% of the population. Presumably because of its still dominant position in the fixed-line segment, Síminn has so far not requested remuneration for the costs incurred under its universal service obligation. Nonetheless, evidence from the United States indicates that demand for telecommunication services is quite price-elastic, and hence universal service charges can have potentially large distorting effects (Hausman, 1998). Instead of effectively levying a tax, operators should therefore be allowed to charge customers for an unusually high cost of providing service. Other goals, such as maintaining a regionally dispersed population, can then be served through income support rather than universal service charges. The authorities may also want to consider whether universal service goals can be more efficiently achieved through technologies other than fixed-line services.

Iceland ranks worldwide among the countries not only with the highest mobile phone penetration but also with the highest broadband Internet usage (Figure 9). Over 80% of households have access to the Internet, and since early 2003 digital subscriber lines (ADSL) have replaced dial-up connections as the most widely used mode of internet access (Statistics Iceland, 2004). In the rapidly growing market for

Figure 9. Broadband subscribers per 100 inhabitants<sup>1</sup>



1. June 2004.

Source: OECD, Communications Outlook database 2005 (forthcoming).

high-capacity connections, in which the number of fixed network users increased from 10 600 at the end of 2001 to over 40 000 two years later, Og Vodafone's share is about 30%. Reykjavik Energy also offers Internet access, through its subsidiary Lina.net, to businesses by using its fibre-optic network in the Reykjavik area and to households by using its electricity supply grid.

When the new regulatory framework was legislated in late 1999, it was envisaged that regulatory reform would soon be followed by the privatisation of Síminn. The government initially set out a three-stage plan. In the first stage, a limited number of shares were to be sold to the general public. Thereafter, a core investor was to be sought with the aim of strengthening the Icelandic telecommunications market and increasing Síminn's value in subsequent sales. The core investor was to be chosen through a limited tendering procedure following pre-selection. In the final stage, a substantial share was to be offered for sale on overseas as well as Icelandic markets. Unfortunately, the timing of this plan coincided with the global downturn in the telecommunications sector (OECD, 2003a). The initial stage was set for 19-21 September 2001, at which point only 5% of shares were subscribed out of a total of 14% offered on the market. Moreover, the subsequent negotiations with the chosen core investor, TeleDanmark, broke down in February 2002 after no agreement on terms had been reached. The privatisation process remained stalled thereafter, initially as a consequence of adverse market conditions. At the beginning of 2004, ownership of Síminn, which had been incorporated in 1998, was transferred from the Ministry of Communications, to whom the PTA reports, to the Ministry of Finance to achieve at least a minimum degree of separation between ownership and regulatory powers. The government's privatisation committee then decided to abandon the earlier three-stage plan and instead invited tenders for the tasks of advising the government on possible choices regarding the sale and preparing proposals on the ways and means of the sale. An agreement with a consultancy has now been concluded, and the government aims to sell Síminn during 2005. The authorities should aim to conclude the sale as soon as circumstances permit, as this would remove uncertainty about an important aspect of the future industry structure. At the same time, changes to the current structure of access prices, as discussed earlier, are necessary to foster local service competition and reduce the risk that the incumbent's dominant position in local service stifles competition in other segments.

### *Electricity*

The Icelandic energy market differs from those of other OECD Member countries in several respects. As of 2002, about 70% of energy consumed in Iceland was generated from domestic renewable energy sources. The remaining 30%, which was generated from imported fossil fuels, was overwhelmingly used in the transport sector. Thus, except for the transport sector, practically all energy consumed in Iceland, whether commercially or by households, is either electricity generated from hydropower and geothermal energy, or space heating using geothermal energy. While renewable energy sources are abundant, direct export of electricity by submarine cable to Scotland is not yet economically viable. The current strategy is to attract power-intensive industry, notably aluminium smelters, to Iceland. Electricity usage is therefore highly concentrated: 71% of electricity usage in 2002 was accounted for by just three plants: two aluminium smelters and a ferro-silicon plant. The concentration of electricity usage is projected to increase even further once the enormous expansion of the aluminium industry discussed elsewhere in this *Survey* is completed. Iceland's exceptional situation in terms of both energy sources for electricity generation and concentration of end-users has important implications for the competitive structure of its electricity sector.

The electricity market in Iceland is currently divided between the National Power Company (Landsvirkjun), Iceland State Electricity (Rarík) and seven municipal utilities of which Reykjavik Energy

is by far the largest.<sup>17</sup> Landsvirkjun is dominant in electricity generation, accounting for about 85% of the market, and is the majority owner of a newly established company operating the central transmission grid. Until now it has also been the only entity selling electricity to the power-intensive industrial enterprises. The seven municipal utilities have had until now exclusive rights to distribute and sell electricity in their area of operation. Reykjavik Energy's area covers about 54% of the population, and the areas of the other six utilities combined 28%. Finally, Rarik distributes electricity in areas not served by a municipal utility, covering more than 80% of the inhabited areas of Iceland but less than 20% of the population; it also operates some lower-voltage transmission lines. Both Rarik and the municipal utilities engage as well in generation, notably Reykjavik Energy which produces nearly 8% of the nation's electricity. The State Treasury currently has a 50% stake in Landsvirkjun, 45% is owned by the City of Reykjavik and the remaining 5% by the Township of Akureyri. The City of Reykjavik also owns 92.5% of Reykjavik Energy, with most of the remainder owned by the neighbouring town of Akranes. Rarik is entirely state-owned, and the remaining six utilities are owned by the state and the major municipalities in their area of operation. The existing industry structure is therefore one of publicly owned monopolies, similar to the structures of many other European countries. However, it is different in that the degree of vertical integration is lower than elsewhere.

The legal framework for operations in the electricity sector changed substantially with the coming into force of the Electricity Act in July 2003.<sup>18</sup> The main impetus for the Act was to bring Icelandic legislation into conformity with the EU directive adopted in December 1996 concerning common rules for the internal market in electricity. While the Act creates the legal pre-conditions for competition in generation and sales, in practice there remain substantial obstacles to the emergence of competition, especially in generation. This reflects in part the technological implications of the predominance of renewable energy sources, exploitation of which is characterised by very high fixed and very low variable costs, in stark contrast to electricity generation from carbon fuels. The high upfront cost raises the risk for a potential entrant into generation. High fixed costs are slightly less of a problem in geothermal energy than in hydropower because of smaller plant size, and the recent increase in the use of geothermal energy for electricity generation may thus reduce the technical hurdles for potential entrants. Nonetheless, a realistic time lag from obtaining the first research permit to explore a geothermal field until the start of electricity generation is around eight years, and the process involves obtaining 11 permits at various stages from a range of different agencies. On the other hand, the fact that once capacity has been installed, the electricity supply from renewable sources cannot be easily varied means that both generators and retailers have an incentive to enter long-term contracts, the former to recover their long-term investments and the latter to offer their customers stable prices.

A step conducive to opening up electricity generation to competition was taken when, at the beginning of 2005, a separate company was established that took over Landsvirkjun's transmission activities, as envisaged by the Act. The fact that the transmission system is already integrated at the national level (*i.e.* there is a single national grid) would facilitate systems operations in the presence of competition in generation. Another issue concerning transmission is whether the flat tariff structure for input and output at all connection points is optimal, or whether tariffs should at least to some extent reflect distance of generation from load centres (Joskow, 2003). The authorities should moreover consider whether divesting generation activities would support competition in generation. Doing so might help to create a level playing field between incumbents and entrants by preventing state-owned generators from enjoying reduced cost of capital due to government guarantees, in the process lessening the risk of future

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17. The term "municipal utilities" is used to distinguish these entities from Rarik. Although originally their area of operation was confined to the area of one municipality, recent mergers mean that several of these utilities now serve more than one municipality. Nor, as discussed below, are they exclusively owned by the municipalities; the state has stakes in two of them.

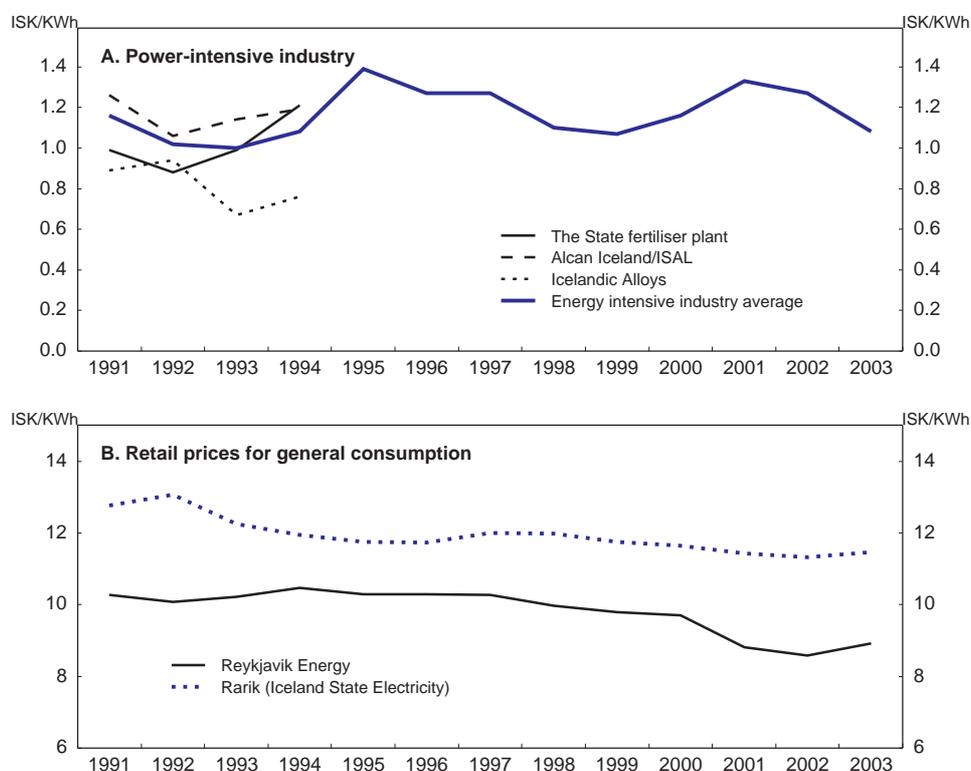
18. See Annex 2 for a more detailed description of the legal framework in the electricity sector.

overinvestment. Privatisation of generation would also further strengthen the independence of the transmission system operator from the generators and help guarantee equal access conditions for all suppliers. As a first step, the authorities should aim to simplify the current ownership structure of the electricity sector. For example, the fact that the City of Reykjavik holds a significant stake in Landsvirkjun while being the majority owner of Reykjavik Energy may well impede competition between these two utilities. Competition in generation and sales could also reveal more transparently the relative cost of supplying electricity to power-intensive industry and retail customers. The unusually large spread by international standards between electricity prices paid by such enterprises and retail electricity prices (Figure 10) raises the question whether this spread reflects cost differentials or instead excessive negotiating power by power-intensive industrial customers. Although retail electricity prices on a pre-tax basis are below the OECD average (Figure 11), they may yet produce substantial rents in light of low average cost of generating electricity from renewable resources.

### Other policies to promote competition

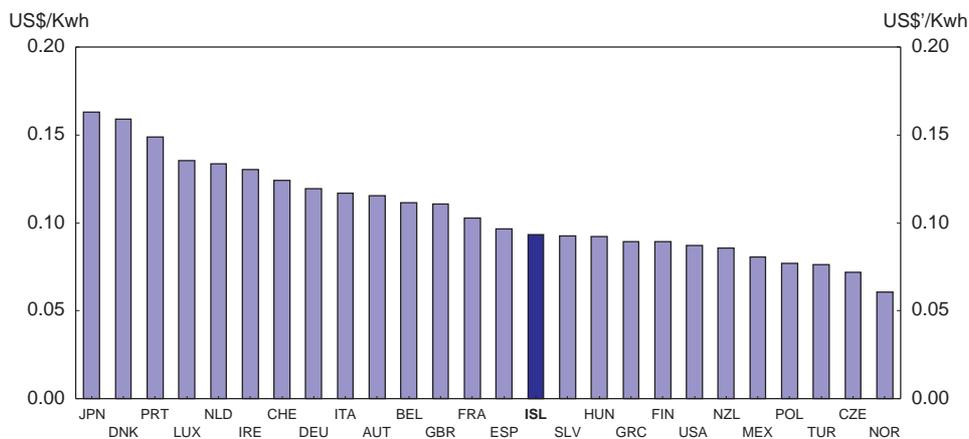
Besides competition law and enforcement and regulatory policies discussed above, there is a wide range of other policies that may directly or indirectly affect the overall intensity of product market competition. This section examines policies in three areas that seem of specific concern in Iceland. First, agricultural support in Iceland is unusually generous in comparison to other OECD countries, and its welfare costs through high food prices are likely to be substantial. Second, although statutory limits on foreign ownership of Icelandic companies are low in most sectors, they remain substantial in a few. Finally, given that government consumption and investment as a share of GDP is relatively high in Iceland, policies that promote effective procurement and outsourcing deserve particular attention.

Figure 10. Electricity prices  
2002 prices



Source: National Energy Authority.

Figure 11. **Electricity prices for households**<sup>1</sup>  
US\$/KWh, 2003 or latest available year<sup>2</sup>



1. Price excluding taxes.

2. 2002 for Germany, Italy, Japan and Spain, 2000 for Belgium.

Source: National Energy Authority and International Energy Agency, Energy prices and taxes, third quarter 2004.

### ***Reduction of agricultural support***

Agricultural support in Iceland, as measured by the OECD's producer support estimate (PSE) as a percentage of gross farm receipts, has declined slightly since the late 1980s, but it remains near the top among OECD countries and is still more than twice the OECD average (Figure 12).<sup>19</sup> At nearly 1.7% of GDP, the PSE in 2003 of ISK 13.5 billion (\$189 million) was almost as large as the total value of farm production of ISK 13.8 billion. As a signatory to the 1995 Uruguay Round Agreement on Agriculture, Iceland has of course adhered to its obligations of converting non-tariff barriers on agricultural products into new tariffs or tariff-rate quotas, and for a number of products trade barriers have been removed altogether. But in the area of domestic support for agricultural producers, the bulk of the policies have remained of the kind that are most distorting in regard to production decisions.<sup>20</sup> Although most other OECD countries also have policies in place that limit market forces in agriculture, the degree to which domestic producers are sheltered from market signals likely entails significant efficiency losses, by diverting scarce resources into a sector where Iceland often does not have a comparative advantage and which is lacking in growth prospects.

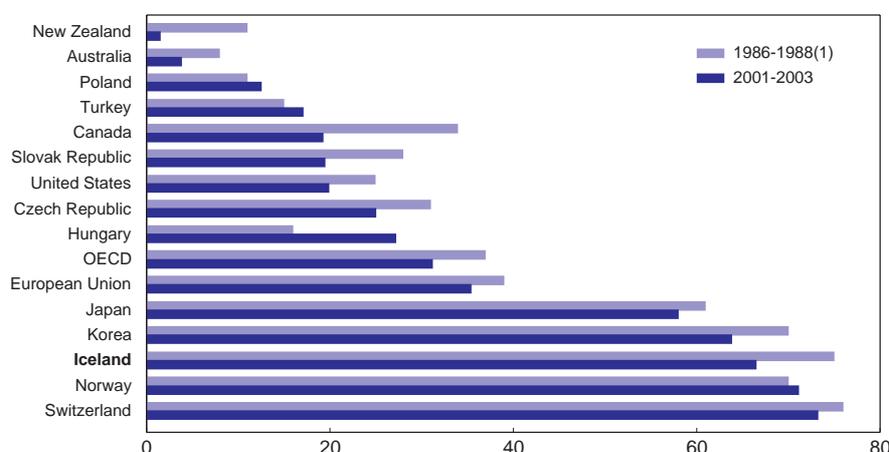
Following the Uruguay round, the Icelandic market was opened for certain products through minimum access requirements that allow minimum access quotas but impose high tariffs on imports above those levels. Tariff quotas apply in principle to 320 lines in the agriculture sector; in practice, however, they are used only for products for which Iceland made minimum access commitments in the Uruguay round and for live plants and flowers. Out-of-quota tariff rates are seldom used; imports generally take place at in-quota or lower tariff rates (WTO, 2000).<sup>21</sup> A seasonally administered system of tariff quotas for

19. See OECD (2004a) for additional information on agricultural policies in Iceland.

20. This section focuses on trade barriers and domestic support for agricultural products. To the extent that export subsidies are in place, their effect on competition is mostly felt abroad and not in Iceland.

21. For several products the minimum access quotas are low: for example, they amount to just 330 grammes of beef per person per year, 220 grammes each for pork and poultry and 180 grammes for butter. Beyond these levels, the tariffs imposed at the end of 2002 were equivalent to \$7.80 per kilogramme of beef, \$5 for pork and \$2.50 for poultry.

Figure 12. **Support to agriculture producers**  
Percentage PSE



1. The figure refers to 1991-93 for Czech Republic, Hungary and Slovak Republic.  
Source: OECD, Agriculture policies in OECD countries (2004).

vegetables is in place. This system, which before 2002 applied to all vegetables, produced strong seasonal price fluctuations and led to strategic behaviour by vegetable wholesalers. As mentioned before, following the CFTA's action against cartel agreements among the wholesalers, this system was abolished for all vegetable items except those grown outdoors. To compensate domestic producers, a production-related support system for the three major greenhouse products (cucumbers, peppers and tomatoes) was introduced, with annual payments in 2003 totalling ISK 195 million (\$2.7 million), compared to a production value for these products of about ISK 500 million (\$7 million).

Iceland shares with many other OECD economies the fact that support to agriculture producers, as measured by percentage PSE, has diminished only little, if at all, since the late 1980s. Since the beginning of the 1990s there has been a shift away from administered prices and towards direct payments to producers. Nonetheless, in contrast to several other OECD economies, Iceland has made little progress in restructuring its support policies away from the most distorting policies, those that provide direct economic incentives to producers to increase current production, towards payments that are decoupled from production decisions. The share of market price support and payments based on output in overall producer support was 83% in 2003, only slightly down from 89% in 1986-88. Milk and sheep meat are the two major agricultural commodities and account for most of the market price support in place. Policies for these two products are determined in conjunction with the farming industry and are set out in two major agreements: one dealing with sheep that runs from 2001 to 2007, the other with dairy farmers for the period 1998 to August 2005. For milk, the government administers producer and wholesale prices coupled with a production quota system. Direct payments based on output are also made to milk producers. For sheep meat, the government maintains direct payments based on historical quota entitlements first introduced in 1986, which had been freely transferable between farmers until mid-1996 when they became linked to a specific farm and de-linked from production. Under the agreement with dairy farmers, administered prices for milk were scheduled to expire by mid-2004, but this date has now been postponed indefinitely. Unsurprisingly, the various agricultural support measures have led to consumer prices that are in most cases more than double their world market equivalent (Table 4). To reduce food prices and to channel resources to more productive uses, a substantial decrease in agricultural support is necessary. Other policy goals such as food safety, environmental goals and a regionally dispersed population should be pursued by other more direct and transparent means.

Table 4. Ratio of consumer prices and farm receipts to world market levels, by product

	1986-88	1994 Iceland	1999	Iceland	2003 OECD	New Zealand
<b>Consumer prices<sup>1</sup></b>						
Milk	4.19	2.35	2.72	3.05	1.81	1.00
Beef and veal	2.23	1.33	2.31	2.46	1.27	1.00
Sheepmeat	2.67	1.00	1.12	0.99	1.27	1.00
Wool	0.45	-0.08	-0.49	-0.27	0.99	1.00
Pigmeat	3.86	2.62	3.21	1.55	1.21	1.00
Poultry	7.31	7.36	6.79	6.78	1.13	2.21
Eggs	5.13	4.45	5.00	3.20	1.03	1.27
Other products	3.95		2.17	2.28	1.30	1.10
All products	3.23	1.77	2.23	2.23	1.31	1.10
<b>Farm receipts<sup>2</sup></b>						
Milk	5.64	4.30	5.04	5.20	1.96	1.01
Beef and veal	2.61	1.37	2.37	2.59	1.54	1.01
Sheepmeat	3.99	2.15	2.19	2.22	1.74	1.00
Wool	1.22	1.28	2.87	2.14	1.06	1.00
Pigmeat	3.94	2.63	3.21	1.58	1.27	1.00
Poultry	7.19	7.13	6.47	6.72	1.20	2.21
Eggs	5.08	4.43	4.99	3.22	1.06	1.27
Other products	3.86		2.21	2.56	1.36	1.02
All products	3.99	2.55	3.14	3.28	1.46	1.03

1. Consumer nominal assistance coefficient, the ratio between consumption expenditure on agricultural commodities and that valued at border prices.

2. Producer nominal assistance coefficient, the ratio between the value of gross farm receipts including support and gross farm receipts valued at border prices.

Source: OECD, Agricultural policies in OECD countries (2004) and PSE/CSE database.

### ***Further opening to foreign direct investment***

Lowering barriers to the entry of foreign companies can potentially play an important role in fostering competition. Policies aimed at opening Iceland to foreign direct investment (FDI) have been pursued since the early 1990s. The stock of inward direct investment rose more than fivefold between 1995 and 2001, reaching ISK 70 billion, equivalent to \$975 million or 9.4% of GDP, at the end of that year, and has remained close to that level since then. Power-intensive industries account for about three quarters of FDI in Iceland. Following its entry into the EEA, in May 1996 the Act on Investment by Non-residents in Business Enterprises was passed in its current form. Ownership restrictions for banks have been removed entirely; energy exploitation rights regarding waterfalls and geothermal energy may be owned by EEA residents, but not by nationals of other countries; and EEA residents are exempt from the 49% ceiling on ownership of domestic airlines. The sector that remains the most restricted is fisheries, where foreigners — EEA residents and others alike — are barred entirely from direct holdings in businesses engaged in fishing operations or primary fish processing and are permitted to own at most 25% of companies that have shares in such businesses. Enforcement of the provisions of the Act is monitored by a Committee on Foreign Investment whose five members are elected by Parliament and whose chairperson and vice-chair are appointed by the Minister of Commerce from among the Committee members.

By international standards, Iceland's ownership restrictions are not especially high.<sup>22</sup> For example, in regard to airlines the 49% threshold for non-EEA residents is common to all EEA member countries and is less restrictive than the corresponding thresholds in either the United States (25%) or Japan (33%). The ownership restriction in hydro and geothermal energy exploitation is also a common feature among OECD economies, and its import has until now been somewhat reduced by the fact that in many cases the entire energy sector is government owned (as is the case in Iceland) and thus other pre-conditions for competition in generation are missing. On the other hand, in fisheries Iceland's ownership restrictions are among the highest among OECD Member countries (OECD, 2003b). Moreover, the law governing foreign direct investment stipulates several screening and approval procedures that are particularly onerous by international standards. Actual practice, by contrast, is considerably more liberal, and the text of the law should be amended so as to reflect this practice. Regardless of whether Iceland's restrictions are lenient or rigid by international standards, however, it is likely that an economy as small as Iceland's has much to gain from opening its markets to foreign investors, as openness to competitive pressures from abroad has a larger role to play in disciplining domestic producers than in a country with an internal market as large as, say, that of the United States. Thus, the authorities should consider reducing the remaining ownership restrictions, in particular *vis-à-vis* non-EEA residents, and should ensure that no unnecessary administrative burdens are imposed in connection with investments by foreigners.

### ***Public procurement and outsourcing of publicly funded services***

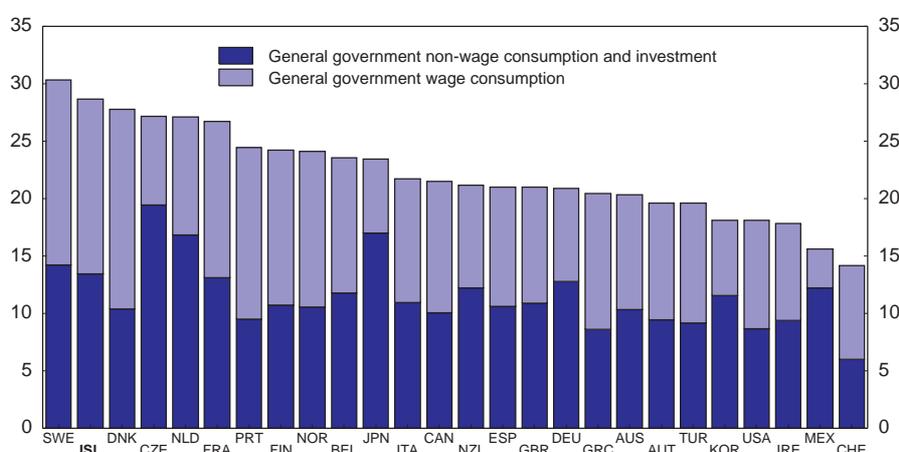
General government purchases of goods and services as a share of GDP in Iceland are among the highest in the OECD; this reflects a large government wage bill as well as non-wage consumption and investment (Figure 13). High non-wage consumption and investment expenditures imply that government procurement policies likely have a large role to play in fostering competition, whereas the high wage bill suggests that there is substantial potential for outsourcing publicly funded services. In comparison to other countries, the national government plays an unusually large role in both procurement and outsourcing. Iceland does not have regional governments, and many of the current 104 municipalities are minuscule; only 20 municipalities have more than 2 000 inhabitants. This means that many services provided in other countries at the regional or municipal levels, such as health care and upper-secondary schooling, are provided at the national level.

The current legislative framework governing public procurement was established in the Public Procurement Act of 2001. It harmonises Icelandic practice in this area with EU directives concerning procedures for the award of public service, supply and works contracts as well as the general principles of equal treatment, non-discrimination, transparency, proportionality and mutual recognition laid down in the EU directives. More recently, in November 2002 the government approved a Government Procurement Policy, which regulates procurement policies of individual ministries. The Ministry of Finance is responsible for government procurement policy in general, and the Minister appoints the Board and the director of the State Trading Centre (Ríkiskaup), which was established for the purpose of handling procurement. He also appoints the three members of the Tender Complaints Committee, the chairman of which must be qualified to serve as a district court judge. The Committee was originally set up in 1996 as an advisory body for the Minister who issued rulings on disputed cases. The 2001 Act transformed it into an independent body, charged with hearing complaints and settling disputes arising from alleged violations of EU rules and Icelandic laws on public procurement. The Committee is open to both Icelandic and foreign entities; its resolutions can be appealed to the ordinary courts, but complaints first have to be taken to the Committee itself. Plaintiffs also have the option of complaining to the EFTA Surveillance Authority (ESA) in Brussels. The State Trading Centre and the Complaints Committee handle contracts for both the

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22. The indicator of barriers to trade shown in Figure 2 reflects only partially these restrictions, as it covers only ownership restrictions in telecommunications and airlines, but not in other sectors.

Figure 13. **Government consumption and investment**  
Per cent of GDP, average 1999-2003



Source: OECD Economic Outlook 76 Database.

national government and the municipalities. Recently the Committee has handled 30 to 40 cases per year, concerning mostly either a lack of tendering or mishandling of certain aspects of tenders. In most cases, the government has been acquitted, but local authorities have at times been found at fault. Very few cases have been taken either to the courts or to the ESA.

Since the mid-1990s, Iceland has made increasing use of competitive procedures in public procurement. There are a variety of procedures available for awarding contracts: open and restricted tendering, negotiations with and without public advertisement and design contests. As a general rule the contracting authorities must use open or restricted tendering as long as the contract value is above the EU thresholds for the different spending categories. Thresholds stricter than those of the EU apply to the national government but require only opening the tender to Icelandic parties, as opposed to EEA-wide tendering (Table 5). Unfortunately, no statistics are available to judge the extent to which public tendering is used in awarding contracts. In view of the limited number of domestic competitors in many markets, the CFTA should be especially vigilant in its monitoring activities against bid rigging.

Outsourcing of services has been increasing, but here too no quantitative evidence is available. The rules regulating which services are subject to and exempt from tendering obligations are in accordance with EU directives. Private service providers can at their own initiative submit an offer to supply a service that is currently provided by an entity of the national government. In this case, that entity has to provide information regarding the cost at which it itself currently provides this service. At the present time,

Table 5. **Thresholds for public tendering**

Government level	Public tendering within the EEA				Public tendering within Iceland	
	State		Municipalities		State	
	ISK	US dollars	ISK	US dollars	ISK	US dollars
Goods	13 422 320	188 014	20 649 757	289 253	5 410 000	75 774
Services	20 649 757	289 253	20 649 757	289 253	10 819 000	151 549
Works contracts	516 243 832	7 231 319	516 243 832	7 231 319	10 819 000	151 549

Source: Ministry of Finance.

however, it is not yet mandatory that the private provider's offer be accepted, nor that the service be put out to tender if the offer is below the government entity's cost. Public-private partnerships are another area that has expanded rapidly after a late start. The first and so far largest project is the Hvalfjordur tunnel linking the Reykjavik area to the town of Akranes and other towns in northwest Iceland, which opened in 1998. Since then a number of smaller projects have been undertaken, such as a small school for crafts, a nursing home for the handicapped and elderly, and a research and development centre at Akureyri University. The municipalities have also initiated a number of smaller projects.

Public ground transport between towns is provided by private bus operators who are subject to licenses. Beginning in August 2005 these licenses will be awarded by public tender. Most routes are expected to be unprofitable and are therefore likely to be awarded to the bidder requiring the lowest subsidy. Licenses will be awarded for up to eight years, after which they will be again put to tender. Minimum service requirements are expected to vary considerably depending on traffic volume, from several times per day to as little as twice a week. An area of possible concern could be whether there is a sufficiently large number of bidders to sustain competitive bidding for all routes. There are at this time at least five companies that can be expected to compete for the busier routes. Given the likelihood that none of them would have to undertake major investments to provide service, awarding licenses for up to eight years seems overly long. In balancing the goal of maintaining a dispersed population against the cost of providing subsidies for unprofitable routes, a potentially efficient method of providing public transport on routes with low volume is bus service on demand, such as has been introduced in Denmark in recent years. Finally, another aspect that will require attention is how to link efficiently long-distance and local transport. Local bus service has in the past been provided by the municipalities, but in the meantime many of them have contracted these services out to private companies.

### **Concluding remarks**

The combination of Iceland's remote situation and the small size of its economy implies that in many markets high concentration, if not monopoly, is appropriate due to economies of scale, whereas for the same reasons competitive pressures from abroad will tend to be weaker than elsewhere. Avoiding abuse of market dominance is therefore particularly challenging. On the whole, the Icelandic framework of competition and regulatory policies introduced since the beginning of the 1990s has met this challenge admirably well. Nonetheless, there is scope for improvements in a number of areas. Some recommendations concerning competition law, network industries and policies to promote competition in other sectors are provided in Box 2.

**Box 2. Recommendations regarding product market competition**

**Competition law and policy**

The institutional structure of competition law enforcement is on the whole efficient, and proposed extensions of the power and scope of the competition authorities would likely prove beneficial.

- Ensure close collaboration between the CFTA and the new entity dealing with consumer affairs to preserve existing synergies between these two areas of surveillance.
- Resist *de facto* and legal exemptions from certain aspects of the competition law for agricultural producers.

**Regulatory policies in network industries**

**Telecommunications**

Recent legislative changes have put in place a framework conducive to competition, but more needs to be done to facilitate entry into some market segments in order to reduce the risk of the incumbent abusing its dominant position.

- Consider whether the cost structure warrants an increase in the margin between fixed-line subscription fees and the fee at which entrants can lease the local loop from the incumbent operator in order to promote local-service competition.
- Achieve universal service goals through income support financed out of general revenues rather than universal service charges. Consider whether universal service goals can be more efficiently achieved through technologies other than fixed-line services.
- Complete the privatisation of Iceland Telecom now that market conditions in telecommunications have improved.

**Electricity**

Although the new legislative framework calls for structural separation and designates generation and sales as competitive activities, the current industry structure raises high hurdles to market entry, and competition among the current players is so far virtually non-existent. Several measures would improve the prospect for viable competition in generation and sales.

- Consider whether the currently envisaged flat transmission tariff structure should be modified to reflect distance of generation from load centres.
- Consider whether divestiture of Landsvirkjun's generation activities would help create a level playing field in generation by avoiding cost-of-capital differentials between the incumbent and entrants.

**Other policies to promote competition**

**Reduction of agricultural support**

Support for agriculture remains very high by international standards and is heavily skewed towards measures affecting production decisions. In addition to distorting supplies, agricultural support also contributes to the very high food prices. Reducing support would likely cause productive resources to move from the agricultural sector into activities where Iceland enjoys a greater comparative advantage, thus raising overall productivity.

- Reduce agricultural support, especially in the area of policies that provide incentives to increase production. Eliminate administered prices for dairy products.
- Open the Icelandic market to foreign competition by raising quotas and reducing tariffs on quota-exceeding imports.

**Box 4.2. Recommendations regarding product market competition (cont'd)*****Further opening to foreign direct investment***

While foreign ownership restrictions in most industries are low in Iceland, they remain substantial in a few sectors and, together with administrative requirements stipulated by the law, may adversely affect foreign direct investment.

- Reduce the remaining ownership restrictions, notably in the energy and fisheries sectors.
- Remove administrative requirements in connection with inward direct investment from the law to align it with current practise.

***Public procurement and outsourcing of publicly funded services***

Anecdotal evidence suggests that the authorities have increasingly made use of public tendering, outsourcing of services and public-private partnerships, but statistics are not yet available to judge the extent to which this has been happening.

- Collect statistics to track progress in putting out procurement contracts to public tender and in contracting out publicly funded services to private suppliers.
- Given the small number of domestic competitors in many markets, the competition authority should be especially vigilant so as to minimise the risk of bid rigging.
- Introduce a challenge right so that, when a private supplier offers to provide a certain service, the authority currently supplying this service is forced to reveal its cost of providing the service and, if it is above the private supplier's cost, to accept the private supplier's offer.
- Provide public ground transport in the most efficient manner by integrating long-distance and local bus service and by awarding licenses for a period shorter than eight years, provided operators do not have to undertake major investments.

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## *Annex 1*

### **The legal framework in telecommunications**

Entry into the telecommunications sector began already in 1998, but the regulatory framework existing at that time was inadequate to limit the monopoly power of the incumbent, Iceland Telecom, leading to a large number of cases against the incumbent filed at the Competition Authority (OECD, 1999). The Telecommunications Act and the Law on the Post and Telecom Administration (PTA) that came into force in December 1999 addressed these inadequacies.<sup>1</sup> The objective of the current framework is to prevent anti-competitive behaviour by imposing a number of obligations on holders of operating licenses, in particular if they are deemed to have significant market power.<sup>2</sup> These obligations include: to provide access to leased lines within a network; to allow non-standard network termination points;<sup>3</sup> to set charges for inter-connection between networks based on the cost of establishing and operating the network, in addition to a reasonable rate of return on capital; and accounting separation between activities related to inter-connection or access and other activities. The law specifies that operators should first attempt to negotiate tariffs and terms. If no agreement is reached, the regulator may intervene. All inter-connection agreements of organisations considered to have significant market power have to be non-discriminatory, and the PTA may request justification for inter-connection charges and, where appropriate, require adjustments. The number of operating licenses for any category of telecommunications services may be limited only to the extent required to ensure the efficient use of radio frequencies. Licenses involving the allocation of a frequency band may be put to tender.

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1. The Telecommunications Act, law No. 107/1999, was recently modified and superseded by the Law on Telecommunication, No. 81/2003. The Law on the Post and Telecom Administration, No. 110/1999, was recently modified and superseded by law No. 69/2003 of the same name.
  2. An organisation is presumed to have significant market power if it has a share of more than 25% on average of a particular market in the geographical area within which it is authorised to operate. However, the 25% threshold is not binding, and other factors, such as its ability to influence market conditions, may also be taken into account.
  3. Non-standard termination points allow the inter-connection of different networks. They are often situated in the local exchanges of the incumbent.

## *Annex 2*

### **The legal framework in the electricity sector**

The Electricity Act, which was passed in March 2003, lays down the current legal framework for activities and regulation in the electricity sector. Although, as mentioned before, the main impetus for the Act came from Iceland's EEA obligation to conform with EU directives, the Act goes beyond that directive by covering not only opening of the electricity market to supply competition, transmission access and account separation, but also competition in sales. The National Energy Authority (Orkustofnun) is designated as the industry regulator. According to the Act, the generation and sale of electricity are competitive activities subject to public licenses. Licenses to construct and operate power generating stations, which beforehand required approval by Parliament, are now an administrative decision by the Minister of Industry and Commerce subject to the criteria laid out in the Act. Municipal utilities, which hitherto had exclusive rights to distribution and sales in their area of operation, retain their exclusive rights to distribution, but sales will be gradually opened up until full deregulation at the beginning of 2007. The generation and sale of electricity is under the surveillance of the competition authorities.

The Act stipulates that operation of the transmission and distribution systems continue to be monopoly activities based on concessions. There shall be only one company operating transmission lines at 66 kV or higher, even if this company does not necessarily own all transmission facilities. This company shall be an independent legal entity; however, failing the establishment of such a company, a state-owned company shall be established for the operation of the transmission system. The Act explicitly allows that the transmission system operator may also engage in other activities such as generation provided that it keeps the accounts for transmission operations separate from accounts relating to other activities. Transmission and distribution system operators shall publish tariffs for their services. In the case of the transmission system operator, this tariff establishes charges for connection, input and output at each connection point; the same tariff applies for input at any connection point and for output at any connection point. Distribution tariffs are the same within each tariff area. Initially the tariff area coincides with the operating area of a municipal utility, but the possibility of more than one tariff area applying in the operating area of a utility is not excluded; the Minister of Industry and Commerce determines the boundaries of areas. The tariffs are to be based on an income framework established by Orkustofnun. The Act specifies what can be included as operating expense and regulates the return on capital invested in the operations.

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