Central Bank of Iceland   June 8, 2004
Statistics Department

Software exports in 2003

Since 1990 the Central Bank of Iceland has gathered data from software
companies on their exports of software and computer services. These data
are used in the calculation of the balance of payments, as a subcategory of
"Exports of services", as well as providing an independent record of the
scope and development of Icelandic software projects. A questionnaire on
exports in 2003 was sent to 136 companies. Of this sample, 88% of
companies were classified as operating in ICT (information and
communication technology) consultancy services,[1] and 17 (12%) within
other sectors. In all, 132 companies responded, or 91.7%. Of the
respondents, 95 earned export revenues from software and computer
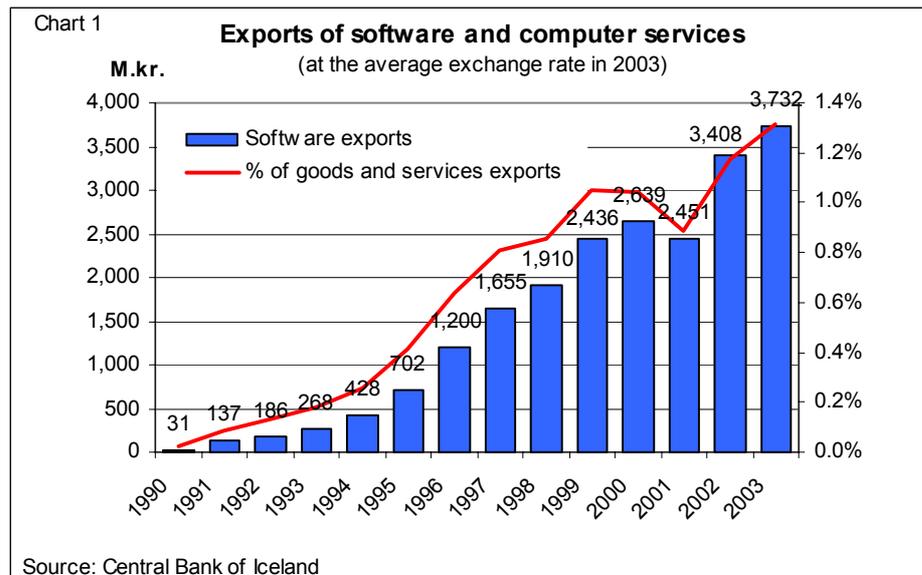services in 2003.

Exports

Sales of software and related services have soared in recent years. Covering
and measuring these sales entails some difficulty, partly because software is
a complex product. It can be either customised to individual requirements or
mass-produced. The product for sale can be an original software release, a
user licence for it or a licence to reproduce it. Software is also frequently
sold between related companies, namely designed by a parent company but
sold by foreign subsidiaries and affiliates to end-users. There are also
numerous, diverse delivery channels ranging from retail packaging to
downloading over the Internet. To complicate the picture even further,
software is often integrated into other products, such as electronic
equipment. Products of this kind are not included in the Central Bank's
survey.

Software exports from Iceland amounted to 3,732 m.kr. in 2003, an increase
of 324 m.kr., or 9.5%, from the previous year, measured at constant prices.[2]
Companies with ICT consultancy services as their core activity accounted
for 85% of exports, and recorded 23% growth in overseas sales year-on-
year. At the same time, exports by companies outside the software sector
contracted. Chart 1 shows exports of software and computer services over
the period 1990-2003, based on the average exchange rate in 2003, by value

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[1] Sector codes 72.10.0-72.60.0 Computers and computer services, and 71.33.0 Leasing of
office equipment and computers, under the Statistics Iceland ÍSAT95 nomenclature.
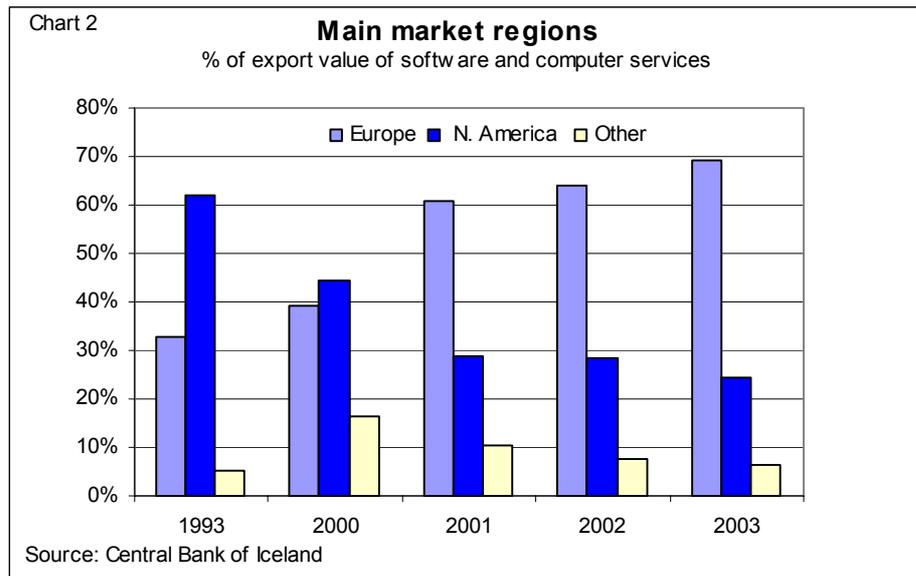[2] Calculated at fixed prices based on the average exchange rate.

and as a proportion of total exports of goods and services for the same years. Exports of software have grown from 31 m.kr. in 1990 to 3,732 m.kr. last year. Software accounted for 1.3% of total exports of goods and services in 2003, marginally higher than the previous year's share of 1.2%. Iceland's software exports have clearly been soaring in recent years, with continuous growth apart from the contraction that took place in 2001.

Chart 1

Exports of software and computer services
(at the average exchange rate in 2003)
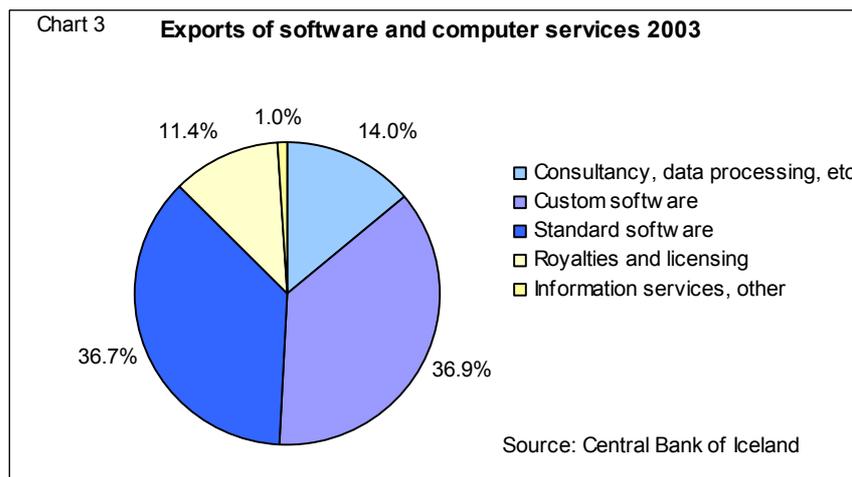
M.kr.

Source: Central Bank of Iceland

The main market region for Icelandic software is Europe. Europe's share has been growing at the expense of the US in recent years. Exports to Europe grew by almost 400 m.kr. year-on-year in 2003[3], while sales to the US contracted by 66 m.kr. Last year, Europe accounted for more than 69% of total Icelandic software exports. Some 92% of exports to Europe went to the European Union, giving it a 64% share of total national software exports, up by 9 percentage points from 2002. Chart 2 shows a breakdown of exports by the three main market regions. Most companies (74 of last year's 95 software exporters) recorded sales to the EU and for 41 companies it was their sole export market. Roughly one out of three companies exported to more than one market region in 2003. Exports to more distant markets than the EU and US were rare. For example, 9 companies exported software and computer services to Asia, 7 to Australasia, 3 to Africa and 3 to Latin America. Average sales per company to more distant markets were also much lower than to the European and US markets.

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[3] Calculated at fixed prices based on the average exchange rate.

Chart 2

Main market regions

% of export value of softw are and computer services

Source: Central Bank of Iceland

Almost 74% of exports of software and computer services in 2003, amounting to 2.7 b.kr., were accounted for by sales of standard and custom software. Sales were equally divided between standard and custom software. This is a considerable turnaround from the year before, when software accounted for almost 84% of exports by this sector, divided between 56% standard and 44% custom. Just over 14% of the sector's export revenues in 2003 were from consultancy, data processing, etc. Income from royalties and licensing was just over 11% in 2003 compared with 5% the previous year. Chart 3 shows the breakdown of exports in 2003, by type of product or service.

Chart 3   **Exports of software and computer services 2003**

Source: Central Bank of Iceland

Twelve companies in the survey exported software and services for more than 100 m.kr. in 2003, the same number as the year before. These 12 companies accounted for 61% of total exports. Although the number of

companies exporting for more than 100 m.kr. remained unchanged between the years, only 7 were on the list for both years, which suggests that the market is volatile. Most of the surveyed companies – just under half – were in the bracket with export revenues of less than 20 m.kr. Some 85% of all software and computer service revenues in 2003 were accounted for by 24 companies.

Table 1 Export revenues from software and computer services 2003

Export revenue range	No. of companies	Share of companies	Export revenues (m.kr.)	Share of export revenues
No exports	37	28.0%	0	0.0%
Less than 20 m.kr.	63	47.7%	329	8.8%
20-49.9 m.kr.	8	6.1%	245	6.6%
50-99.9 m.kr.	12	9.1%	872	23.4%
More than 100 m.kr.	12	9.1%	2,286	61.3%
Total	**132**	**100%**	**3,732**	**100%**

International comparison
To put the Icelandic software industry in an international perspective, it is interesting to compare it with the EU and OECD countries, for which the most recent figures are from 2002. EU exports of software and computer services in 2002 amounted to 30.6 billion US$ and had risen by 9.3% year-on-year. In 2002 Ireland was the largest exporter of software and computer services within the EU. It also topped the OECD list, followed by the US. Total exports of software and computer services by OECD countries[4] in 2002 amounted to 42.2 billion US$. The share of the five largest export countries accounted for 70% of the OECD total. Four of them were within the EU and these accounted for more than 73% of the Community's exports of software and computer services. Iceland's exports of software and computer services were 0.09% of the OECD total, and equivalent to 0.13% of total EU exports.

Table 2. Largest OECD exporters of software and computer services 2002

	Exports (US$)	Share	Proportion of GDP
Ireland	10,377	9.1%	8.5%
US	6,930	0.7%	0.1%
Germany	5,162	0.7%	0.3%
UK	4,463	1.1%	0.3%
Spain	2,483	1.3%	0.4%
OECD[4]	42,200	0.7%	0.2%
EU	30,646	1.0%	0.3%

Source: OECD/Eurostat

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[4] Excluding Mexico, Switzerland and Turkey.

Among the top five OECD countries, the highest proportion of software and computer service exports to total exports was recorded by Ireland at 9.1%. Spain came second with 1.3%, followed by the UK with 1.1% and Germany and the US with 0.7%. The corresponding proportion for Iceland in 2002 was 1.2%. The software industry accounts for the highest share of GDP in Ireland as well. Iceland's software exports were equivalent to 0.5% of GDP in 2002 and 2003, which is above the EU and OECD average.

Most of the world's largest software companies are American. US subsidiaries and affiliates are also involved with computer and software activities on a large scale elsewhere in the world. Ireland, for example, has become a producer and distributor for many of the world's leading software companies, especially for Europe. Of the world's ten largest software companies, seven[5] had Irish-based production companies in 1997. In 2000, 90% of Ireland's total software exports were accounted for by foreign companies located there, which explains that country's position on the list of leading exporters.

References
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[5] Microsoft, Computer Associates, Oracle, Informix, Novell, SAP and Symantec