Estonia

An Economic Profile

July 1992

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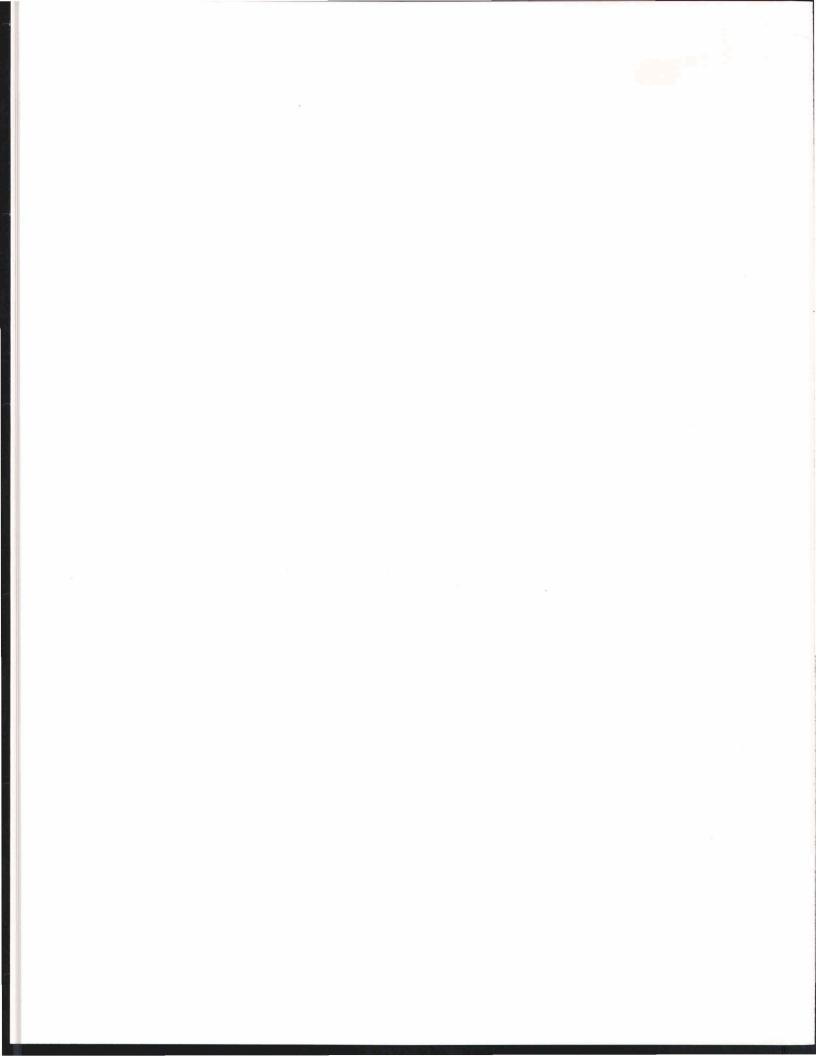
Estonia: An Economic Profile

Preface

This is one in a series of profiles on the republics of the former Soviet Union principally intended to provide basic reference material as a backdrop for assessing future developments in these new states. The profile provides a description of the geography, the population, and economy of Estonia and compares its level of development, growth, and social welfare to that in Finland and Sweden.

International comparisons, particularly for aggregate measures such as GNP, are difficult to make because of differences in definitions and methods used by various countries in compiling statistics. International currency exchange rates are deficient for this purpose because they do not reflect relative purchasing power of different currencies over the whole range of output of goods and services included in GNP. Because of the lack of these parities, alternative measures have been selected. These measures include data for which comparable international statistics were available.

For the most part, official statistics in the public domain provided the data used in this profile. The Estonian Narkhoz (National Economy of Estonian SSR) was the most important source of data. Extensive use was also made of *Trud v SSSR* (Labor in the USSR), *Sotsial'noye razvitiye v SSSR* (Social Development in the USSR), and the *Perepis' naseleniya* (Population Census). Reference country comparisons relied on the information found in those countries' yearbooks and in various OECD publications covering national accounts, food production, and the like. More detailed statistics are included in the appendix.



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Estonia: An Economic Profile

Geography and Climate

Estonia is the northernmost and smallest of the three Baltic states, all of which are located along the northwestern border of the former Soviet Union. With an area of roughly 45,000 square kilometers (about the size of New Hampshire and Vermont combined), Estonia is one of the smaller states in Europe and ranks 13th in size and last in population of the 15 former Soviet republics. It is bounded on the north by the Gulf of Finland and on the west by the Baltic Sea and the Gulf of Riga; Latvia is Estonia's southern neighbor, while Russia borders it to the east.

As part of the great northern European plain, Estonia is extremely flat. It is essentially a low coastal country with average elevations of 160 feet (48.8 meters) in the northwest, and 320 feet (97.6 meters) in the southeast Haanja Uplands, which include the small mountain of Munamagi, at 1,040 feet (317.2 meters), the republic's highest point. Estonia's northern shore along the Gulf of Finland, called Glint, consists of deeply dissected limestone escarpments, providing for a large number of good natural harbors, including that of the capital city of Tallinn. Shallow riverbeds, combined with very flat terrain, lead to frequent spring flooding. As a result, bog land covers a substantial amount of the country.

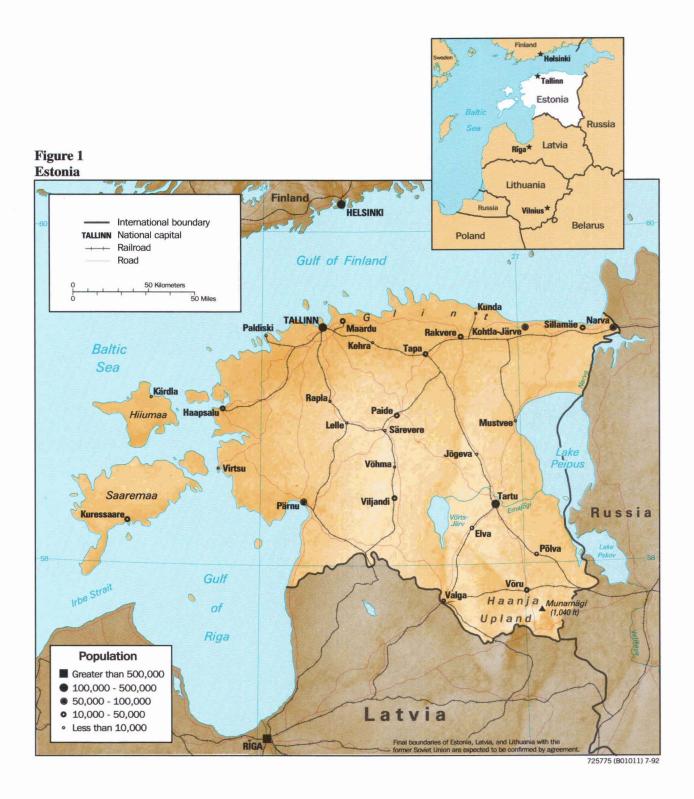
In addition to the bogs, Estonia has over 1,400 lakes, including two major ones, Lake Peipus (Chudskoye) on the Russian border and Vorts-Jarv (Lake Vorts) in the south-central lowlands. The country is also traversed by several rivers, including the Emajogi (which runs west-east from Lake Vorts to Lake Peipus) and the Narva (which connects Lake Peipus with the Gulf of Finland to the north). Although most of the numerous islands off the coast are quite small, the two largest, Saaremaa (Oesel) and Hiiumaa (Dago) comprise roughly 8 percent of the country's total land area.

The climate of Estonia is humid continental, with short, cool summers and prolonged, cold winters. Sea breezes and numerous inland lakes, however, tend to moderate the extremes in temperature characteristic of continental climates. July temperatures average 63 degrees Fahrenheit (17 degrees Celsius) with typically westerly winds; the mean January temperatures fall between 22 and 25 degrees Fahrenheit (-4 to -6 degrees Celsius) with winds mostly from the south. Rainfall and cloud cover are ample, with an average annual precipitation between 24 and 28 inches (600 and 700 millimeters). Rainfall is heaviest in July and August, although the winter months tend to have more frequent precipitation. Nearly 40 percent of Estonia is covered by a northern mixed forest of coniferous spruce and pine trees, along with white birch, ash, maple, and aspens.

History and Government

Estonia's territorial history, beginning in the 13th century, was dominated by Germanic rule from which the Estonians derive their Lutheran religious heritage. Domination of the country after the end of the 16th century alternated between the Swedes and the Poles until the Swedes yielded their Baltic holdings to Peter the Great in the early part of the 18th century. Estonia was freed from Russian rule during the Bolshevik Revolution and was an independent country between 1918 and 1940. Recognized as an independent state by the Soviet leadership on 6 September 1991, Estonia was admitted to the United Nations in the same month.

Estonia is a parliamentary democracy organized into six cities and 15 other districts. The highest legislative authority is the Supreme Council, consisting of 105 deputies, elected from over 40 electoral districts. In 1991 a constitutional assembly was created to draft a new constitution. Half of the assembly came from the



Supreme Council, the other half from the Estonian Congress—a nationalist opposition group that has established a parallel quasi-governmental structure. According to the new constitution, approved by referendum in June 1992, the president will be directly elected in the first election only and serve for four years; subsequent presidents will be elected by parliament. The prime minister, elected by the Supreme Council, is the chief executive official; he and the Council of Ministers are responsible for day-to-day government operations. There are 17 ministers in the cabinet, including seven that deal with industry and the economy. Other key ministries include justice, foreign, and interior.

Population and Labor Force

Estonia was the least populated Soviet republic, comprising only 0.5 percent of the USSR's total, with 1.58 million people (1 January 1990). Its population is substantially smaller than that of Finland (4.97 million) and Sweden (8.53 million), respectively. Over the past decade, Estonia's population has grown more rapidly than that of Sweden or Finland, but all three are considered "low growth" areas (appendix table A-1). Longer life expectancy in the Nordic countries is more than offset by Estonia's higher fertility level. As a result, relative to the able-bodied population in 1989, there are more children and fewer senior citizens in Estonia than in either Finland or Sweden. Women make up 53 percent of Estonia's population, a somewhat higher share than in the Nordic countries. Table 1 presents a selection of key population characteristics.

Estonia's population lags well behind the two Nordic countries in terms of mortality and life expectancy.¹ Infant mortality, a major component of overall mortality in Estonia, was 12.3 per 1,000 births in 1989.² Even with understatement the official rate is twice as high as rates for Sweden and Finland.

Estonia's population is more highly urbanized than Finland's but less urbanized than Sweden's. A much greater portion of the population, however, lives in Tallinn than in either of the Nordic countries' largest cities.

In 1979, ethnic Estonians comprised 64.7 percent of the population, and Russians accounted for 27.9 percent. Ten years later, the Estonian share had fallen to 61.5 percent, while the Russian share had risen to 30.3 percent (appendix table A-2).3 Russian colonization of Estonia began in the 18th century, but the greatest migration of ethnic Russians followed World War II when thousands came to work in industry. Russians are concentrated primarily in the northeast of the republic, where many were settled in connection with the development of the extensive oil shale industry. In 1989, about 47 percent of the population of Tallinn was Russian and 41 percent was Estonian. In Tartu, in contrast, 72 percent was Estonian and 22 percent Russian.

The Estonian language, whose written alphabet uses Latin characters, belongs to the Balto-Finnic group of Finno-Ugric languages. As the name suggests, it is closely related to Finnish and more distantly to Hungarian. In September 1989, the parliament approved a law designating Estonian as the official language of the republic. Currently, more Estonians speak Russian than vice versa. As would be expected, the share of Russian speakers increased from 50 to 59 percent between 1979 and 1989, while the share of Estonian speakers declined by 2.1 percentage points to 67.4 percent. Literacy is nearly universal, and the population is considered well educated relative to the rest of the former Soviet Union. As of the 1989 census, 59 percent of the population ages 15 and over had completed secondary school, up from 47 percent in 1979. The share with completed higher education rose from 8 to 12 percent.

¹ Because of past Soviet statistical practices, the official figures for Estonian life expectancy probably understate the magnitude of the difference in mortality levels.

² Because of definitional differences, the official Estonian infant mortality rate (which is an important indicator of health conditions in a country) cannot be directly compared with other countries' rates. The reported infant mortality rates are understated in part because they do not include deaths in the first seven days after birth. Estimates for the former USSR suggest that the true rate is about twice the reported rate. The differential has not been estimated for the individual republics.

³ Ukrainians (3.1 percent) and Byelarussians (1.8 percent) comprise the next-largest ethnic groups, with Poles, Jews, Lithuanians, and Latvians making up the rest of the population.

Table 1 Selected Demographic Statistics, Selected Years

| | Estonia | | Finland a | | Sweden a | |
|--|---------|-------|-----------|-------|-----------|-------|
| | 1979 | 1989 | 1979 | 1990 | 1979 | 1990 |
| Population b | | | | | | |
| Total (thousands) | 1,464 | 1,566 | 4,788 | 4,974 | 8,318 | 8,527 |
| Male | 677 | 731 | 2,315 | 2,413 | 4,120 | 4,212 |
| Female | 787 | 834 | 2,473 | 2,561 | 4,198 | 4,315 |
| Age dependency ratios (per 100 persons ages 15 to 64) | | | | | | |
| Total | 52 | 51 | 48 | 48 | 56 | 55 |
| Young (0-15) | 33 | 34 | 30 | 29 | 31 | 28 |
| Old (over 64) | 19 | 17 | 18 | 20 | 25 | 28 |
| Percent urban | 70 | 71 | 60 | 62 | 83 | NA |
| Total fertility rate c (births per woman) | 2.0 | 2.2 | 1.6 | 1.7 | 1.7 | 2.0 |
| Life expectancy (years) | 70 | 71 | 73 | 76 | 76 | 77 |
| Largest cities (thousands) | Tallinn | 484 | Helsinki | 491 | Stockholm | 672 |
| | Tartu | 115 | Tampere | 172 | Gotenborg | 432 |

a Although the year 1990 is indicated, data for Nordic countries refer to various dates depending on the country and measure in question.

^c Total fertility rate represents the number of children a woman would bear in her life if she survived to the end of the reproductive ages and was subject over this period to the regime of age-specific fertility rates observed in the given country and year.

Despite similarities in geography and climate, the distribution of the labor force in Estonia differs significantly from that in Finland and Sweden (table 2). The share of labor in agriculture is comparatively high, reflecting the low level of development in Estonia. Other differences reflect the impact of past Soviet development policy that favored industry and attached little importance to consumer services. Thus, nearly a third of Estonian workers are employed in the industrial sector compared with less than one-fourth in the other countries. Relatively small shares are employed in trade and public dining and in financial institutions, and a comparatively small proportion of the labor force works in the service sector.

Russians are disproportionately represented in the higher paying sectors, such as industry and transport, while Estonians predominate in the lower paying sectors, such as health and education (table 3 and appendix table A-3). This pattern, which is repeated

throughout most non-Russian republics of the former Soviet Union, is the result of the long-continued Soviet policy of sending highly skilled Russians to republics outside Russia in order to staff new industrial enterprises.

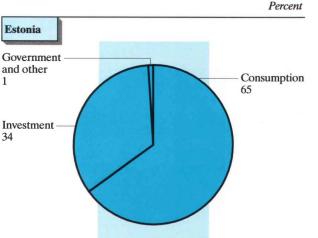
Structure and Performance of the Economy

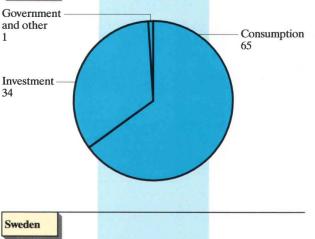
Aggregate Measures. Gross national product accounts comparable to those in the West are not yet available for Estonia. Preliminary estimates suggest, however, that the agricultural, industrial, and construction sectors contribute about two-thirds of total GNP as compared with 31 percent and 28 percent in Finland and Sweden, respectively. Trade and services make up a mere one-quarter of Estonian GNP, as compared with over two-thirds in the Scandinavian countries. Such a relatively backward and distorted structure of the Estonian economy is also shown by the distribution of the labor force.

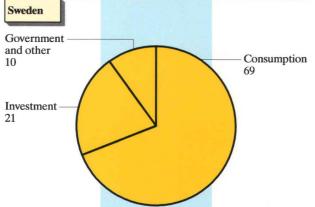
b The average annual growth rate for Estonia from 1979 to 1989 is 0.7 percent. The average annual growth rate for Finland from 1979 to 1990 is 0.4 percent, and for Sweden it is 0.2 percent.

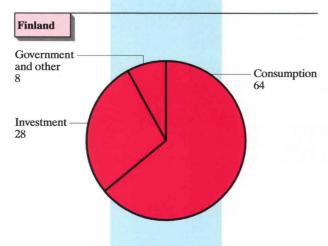
Figure 2 **GNP** by End Use

Table 2 Distribution of Labor Force by Sector, 1989









| | Estonia | Finland | Sweden |
|-----------------------------------|---------|---------|---------|
| Total (thousands) | 815.1 | 2,470.0 | 4,466.0 |
| Total (percent) | 100.0 | 100.0 | 100.0 |
| Industry | 31.8 | 22.7 | 23.0 |
| Agriculture and forestry | 13.4 a | 8.8 | 3.6 |
| Transportation and communications | 8.3 | 7.2 | 7.0 |
| Construction | 9.9 | 8.1 | 6.5 |
| Trade and public dining | 8.9 | 14.9 | 14.6 |
| Credit and insurance | 0.5 | 7.9 | 8.3 |
| Services and other b | 27.2 | 30.4 | 37.0 |

a Includes collective farms and private agriculture. The share probably is understated because of undercounting labor used on private plots.

b Residual category comprises mainly housing and personal services, government health and social security, education, miscellaneous services and activities. For Finland and Sweden the residual includes public administration and defense, recreational and cultural services, and miscellaneous services.

Percent

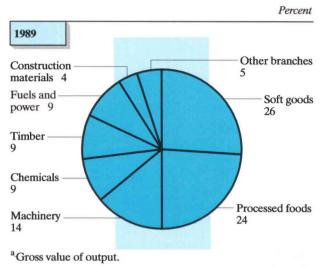
| Table 3 | |
|----------------------------------|--|
| Ethnic Estonians' Share in State | |
| Sector Employment, 1988 | |

| Total | 59 |
|------------------------------|----|
| Sector | |
| Industry | 43 |
| Agriculture a | 84 |
| Transport and communications | 47 |
| Construction | 61 |
| Trade and public dining | 62 |
| Health and physical culture | 67 |
| Education | 71 |
| Culture and art | 84 |
| Government administration | 72 |

a Excludes collective farms and private agriculture.

About two-thirds of Estonian GNP is used for purchases of goods and services by consumers. This figure includes the value of health, education, and social services provided at no cost to consumers by the government. Comparable consumption shares for

Figure 3
Estonia: Structure of Industrial Output ^a





Strip mine near Kohtla-Jarve

Sweden and Finland are 69 percent and 64 percent, respectively. Consistent with the traditional high priority given to developing industry in the former Soviet Union, Estonia devotes over 30 percent of GNP to investment; comparable shares in Sweden and Finland are 21 and 28 percent. Estonia devotes a much smaller share of GNP to government services than do Sweden and Finland, where public services and defense expenditures are considerably greater.

Growth rates for GNP comparable with those in the West have not yet been calculated for the former Soviet Republics. Preliminary estimates for Estonia suggest, however, that gross domestic product (GDP) in Estonia increased at less than 2 percent annually during 1981-88, perhaps a little less than the 1.9 percent annual growth registered by Sweden, but well below the 3.1 percent achieved by Finland. Moreover, it appears that the productivity with which labor and capital were used stagnated or declined in Estonia during the 1980s, as compared with substantial improvement registered in both Nordic countries.

Industry. Industrial growth in Estonia during the 1980s proceeded at a slow pace. The same was true for Sweden, but not for Finland, whose stronger performance was similar to that in the US industrial sector during the 1950s and 1960s:

| | Average Annual Industrial |
|---------|---------------------------|
| | Growth, 1981-89 |
| | (percent) |
| Estonia | 1.4 a |
| Finland | 3.0 |
| Sweden | 1.7 |
| | |

^a Estimated. The official average annual rate of growth for 1981-89 of 2.7 percent is believed to be biased upward mostly because of disguised price inflation.

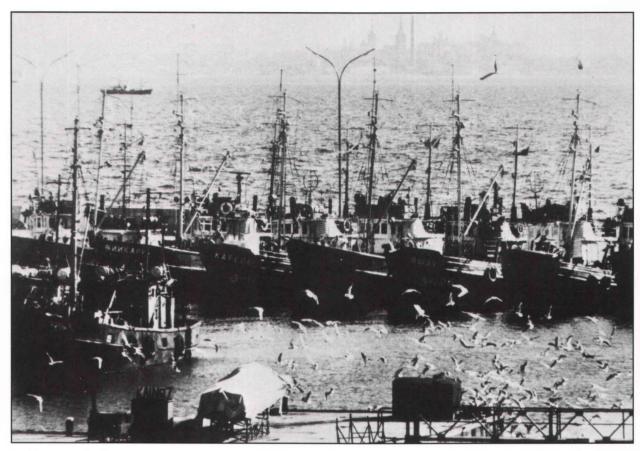
Estonia is the most industrialized of the three Baltic states. While hardly resource-rich, it is better endowed with mineral resources than are the other two Baltic republics. The structure of industry in Estonia and the Nordic countries is fairly similar and reflects, in part, similar resource endowments and comparative advantages (appendix table A-4). Extensive tracts of

Figure 4
Industrial Activity



forest have led to the creation of a significant wood and paper industry. All have diversified economies that employ a highly literate and technically oriented work force. Nevertheless, the impact of Moscow-dictated investment priorities on Estonia has probably distorted natural patterns of development. Estonia devotes large shares of plant and equipment and labor force to the food and soft goods industries. Together they accounted for half of Estonia's industrial output in 1989. In the market economies of Finland and

Sweden, the shares were only 15 and 10 percent, respectively. Within the former Soviet Union, Estonia had the reputation of producing comparatively high-quality clothing, shoes, and food products. Given its perceived local advantage and lack of integration into the world market, Estonia became a focal point for production of consumer-oriented products for export to other republics.



Fishing harbor, Tallinn

Estonia supplies more than half of its own energy needs, much of it in the form of electricity generated from domestically produced oil shale. Indeed, it was the only republic of the former Soviet Union, and the only political entity in the world, where oil shale is the major source of energy. Most of the oil shale is found in the northeastern part of Estonia, near the cities of Narva and Kohtla-Jarve, where it is burned at local thermal power plants. While not an efficient fuel source, oil shale has played a significant role in the energy-poor Baltic region, despite the fact that the method producing and processing this local resource pollutes the environment.

The total production of electric power in Estonia is substantially less than in Finland and Sweden, but on a per capita basis, more than in Finland. The relatively high level of production reflects, in part, a Moscow planning decision to have Estonia supply electricity to the St. Petersburg region.

Estonia produces large amounts of peat as well, accounting for 5 percent of the total Soviet production in 1989. There is a uranium mining and concentrating facility at Sillamae, near Narva. Plastic and petrochemical processing industries have developed along the route of the natural gas pipeline emanating from the Russian Republic. But, as with the processing of oil shale, these industries also contribute to serious problems of air, water, and soil pollution, particularly at such sites as the city of Kohtla-Jarve, the center of Estonia's oil and gas distillation and nitrogenous fertilizer industries.

Estonia has historically well-developed, but presently declining, construction materials and furniture industries based on the production of lime, cement, and round logs. Despite the fact that forests cover a large portion of its land territory, Estonia still imports much of its timber.

Figure 5 Major Energy Facilities



The machinery sector, characterized primarily by the production of electronic and engineering equipment, produced over 10 percent of the total Soviet air pollution control devices in 1989. The textile industry, with its major centers of textile production in Tallinn, Tartu, and Narva, employs over half of the soft goods

labor force and produces some of the highest quality knit and woven fabrics in the former Soviet Union. Not surprisingly, given its seaside locale, processing of fish also is an important component of Estonia's economy.

Table 4
Production of Selected Industrial Products

Thousand metric tons (except where noted)

| | Estonia | | Finland | and | | Sweden | | | |
|-------------------------------------|---------|-------|---------|--------|--------|--------|--------|--------|-------|
| | 1985 | 1987 | 1989 | 1985 | 1987 | 1989 | 1985 | 1987 | 1989 |
| Primary energy | | | | | | | | | |
| Electric power (billion kWh) | 18 | 18 | 18 | 49 | 53 | 57 | 114 | 119 | 118 |
| Minerals and metals | | | | | | | | | |
| Crude steel | 12 | 12 | 11 | 2,518 | 2,669 | 2,921 | 4,813 | 4,595 | 4,692 |
| Chemicals | | | | | | | | | |
| Mineral fertilizers | 244 | 257 | 214 | 1,752 | 1,929 | 1,744 | NA | NA | NA |
| Sulfuric acid | 616 | 653 | 552 | 1,207 | 1,099 | 1,216 | | | |
| Detergents | 35 | 37 | 41 | NA | NA | NA | 170 | 177 | NA |
| Forestry products | | | | | | | | | |
| Timber production (1,000 cu m) | 2,668 | 2,760 | 2,538 | 43,611 | 42,000 | 47,113 | NA | NA | NA |
| Sawn timber (1,000 cu m) | 668 | 666 | 585 | 6,896 | 6,935 | 7,189 | 11,006 | 10,624 | NA |
| Plywood (1,000 cu m) | 32 | 33 | 31 | 591 | 663 | 602 | NA | NA | NA |
| Paper | 90 | 90 | 92 | 4,419 | 4,407 | 4,606 | 3,025 | 3,590 | NA |
| Construction materials | | | | | | | | | |
| Cement | 1,094 | 1,161 | 1,129 | 1,695 | 1,579 | 1,596 | 2,124 | 2,253 | NA |
| Construction bricks (million units) | 255 | 244 | 263 | 143 | 107 | 134 | 72 | 74 | NA |
| Processed foods | | | | | | | | | |
| Meat (indust. prod.) | 179 | 185 | 187 | 321 | 326 | 321 | 76 | 83 | NA |
| Butter | 32 | 34 | 31 | 73 | 61 | 62 | 51 | 43 | NA |
| Margarine | 7 | | 7 | 40 | 39 | 41 | 187 | 181 | NA |
| Cheese | 15 | | 17 | | | | 125 | 124 | NA |
| Confectionery goods | 48 | 51 | 54 | NA | NA | NA | 43 | 45 | NA |
| Macaroni | 6 | 7 | 6 | NA | NA | NA | 18 | 18 | NA |
| Soft goods | | | | | | | | | |
| Shoes (million pairs) | 6 | 7 | 7 | NA | NA | NA | 4 | 5 | NA |

Notes: Finland: Sawn timber production for 1987 and 1989 includes only that from large sawmills. Paper includes printing, writing, and newsprint only. Bricks exclude refractory and acid-resistant bricks.

Sweden: Confectionery goods do not include chocolates. Detergents includes soap and organic surface-active agents whether or not they include soap. Paper includes printing, writing and newsprint only.

Table 4 presents production statistics for selected industrial goods. The list is intended to highlight products that are commercially important and amenable to international comparison. Additional industrial production data are given in appendix table A-5. Overall, these data indicate that Estonia has a fairly diversified industrial sector that has the capacity to fill selected needs of the domestic economy and to provide a potential source of exports. In the past, Estonia has exported a substantial share of its industrial production, largely to other Soviet republics.

Agriculture. The collectivization of Estonian agriculture after World War II divided farm organizations into two sectors—the socialized sector consisting of state and collective farms and accounting for fourfifths of agricultural production—and the private sector, consisting of small plots and animal holdings accounting for the remainder of farm output. Practically no individual peasant holdings were left. State and collective farm households were permitted to cultivate private plots of one-half to 1 acre (less than 0.5 hectare) and maintain one or two head of livestock. In addition, nonagricultural households had, and still have, very small garden-size plots for cultivation. Thus, Estonian agriculture before independence was dominated by 335 collective and state farms (roughly half of each type). Most private-sector output was produced on the small holdings of households attached to these very large socialized farms. In contrast, Sweden and Finland have nearly 96,000 and 173,000 privately operated farming units, respectively, that produce all farm output.

Estonia's collective farms were organized nominally as "producers' cooperatives," whereas state farms were organized along the lines of state-operated industrial enterprises. The data in table 5 show the immense size of these enterprises.

Because of the fluctuations in growing conditions, agricultural production around the world is characterized by instability in annual output. As table 6 shows, even in the countries bordering on the Baltic Sea, where normally more than enough precipitation allows for successful growing of crops, relatively wide swings in output occur. The cool, short, and wet growing season, combined with poor soils, limits both

crop and livestock production. As a result, Estonia as well as the Nordic countries are net importers of farm products.

Overall, when production of crops and of livestock products are priced in US dollars, Estonia's output (\$924 million) is slightly more than one-half of Finland's (\$1,721 million) and roughly one-third that of Sweden's (\$2,629 million). Livestock production in all three countries varies between 70 and 83 percent of the total value of agricultural output. Production of important commodities is given for a series of years in table 7.

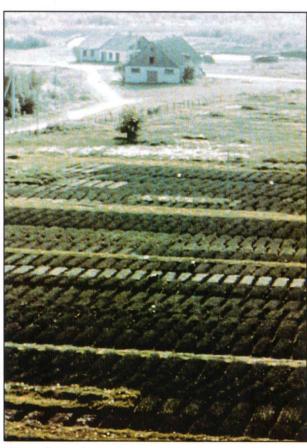
Estonia lags in all productivity measures despite the fact that all three countries are burdened with relatively unproductive podzolic soils that often require drainage and use of lime and fertilizer as soil additives. Even with the use of roughly one-third more mineral fertilizer per unit of cultivated land, crop yields fall far short of those in Finland and Sweden. When the center yields per hectare of wheat, barley, oats, rye, and potatoes are weighted together, Swedish and Finnish production stands at 223 percent and 140 percent, respectively, of Estonia's (based on 1988-89 harvests). Though not quite so pronounced as in the case of crop yields, Estonia still lags as much as 66 percent behind Finland and Sweden in milk production per cow. Per capita milk production was 4,217 kilograms in Estonia versus 6,548 in Finland and 7,011 in Sweden. As indicated above, the private sector in the 1980s accounted for roughly one-fifth of Estonian farm output. The limited data available indicate a moderate differential in favor of the private sector in land and livestock productivity. Depending on the product, the differential ranges from 6 percent for potato yields to 26 percent for grain yields.

Transportation. Estonia is comparatively well served by its transport network. While extensive, various components of the system are still less developed than in the two Nordic countries. Finland has approximately twice the distance of paved roads (see table 8)

Table 5 **Selected Characteristics of Agricultural Enterprises, 1988**

| | Estonia a | Sweden | Finland |
|-----------------------------------|-----------|--------|---------|
| Number of farms | 335 | 95,553 | 172,687 |
| Agricultural land (per farm) (ha) | 4,013 | 29 | 14 |
| Cattle (per farm) | 2,082 | 17 | 8 |
| Hogs (per farm) | 3,054 | 23 | 8 |
| Poultry (per farm) | 17,408 | 113 | 37 |
| Number of workers (per farm) | 346 ь | 1.8 c | 1.1 |

a State and collective farms only.
b Annual average per farm.
c Includes forestry, hunting and fishing.



Kirov collective farm

Table 6 Growth in Farm Output, Selected Years

| | Estonia | Finland | Sweden |
|------|---------|---------|--------|
| 1985 | 103 | 113 | 109 |
| 1986 | 110 | 113 | 106 |
| 1987 | 108 | 99 | 93 |
| 1988 | 104 | 103 | 91 |
| 1989 | 111 | 114 | 99 |
| 1990 | 97 | 118 | 107 |

Table 7 **Estonia: Production of** Major Agricultural **Products, Selected Years**

| Thousand | metric | tons |
|-----------|--------|-------|
| (except w | here n | oted) |

1980 = 100

| | 1980 | 1985 | 1986 | 1987 | 1988 | 1989 |
|----------------|-------|-------|-------|-------|-------|-------|
| Meat | 196 | 217 | 215 | 222 | 228 | 229 |
| Milk | 1,170 | 1,260 | 1,267 | 1,290 | 1,289 | 1,277 |
| Eggs (million) | 542 | 528 | 545 | 557 | 579 | 600 |
| Wool (tons) | 394 | 279 | 301 | 242 | 229 | 224 |
| Potatoes | 1,146 | 833 | 1,146 | 728 | 716 | 864 |
| Vegetables | 125 | 124 | 163 | 116 | 129 | 144 |
| Grain | 952 | 726 | 869 | 943 | 447 | 967 |
| | | | | | | |

Table 8
Land Transport Networks, 1989

| 10.00 | | | |
|-------------|------|-----|-------|
| Kil | 100 | 401 | - |
| Λu | ()// | TPI | e_I |

Table 11 Structure of Industrial Investments, by Branch, 1989

Percent share

| | Estonia | Finland | Sweden |
|------------------|---------|---------|---------|
| All roads | NA | 76,272 | 133,673 |
| Paved roads | 14,800 | 34,005 | 107,856 |
| Unpaved roads | NA | 42,267 | 25,817 |
| All rail | 1,026 | 5,890 | 11,491 |
| Electrified rail | 132 | 1,636 | 7,464 |

Table 9 Common Carrier Freight Turnover in Estonia by Mode, Selected Years

Million ton-kilometers

| | 1980 | 1985 | 1986 | 1987 | 1988 | 1989 |
|-------|-------|-------|--------|--------|--------|--------|
| Sea | 8,688 | 9,322 | 10,644 | 14,255 | 19,265 | 24,378 |
| Rail | 5,919 | 6,446 | 6,736 | 7,134 | 7,989 | 7,609 |
| Truck | 2,213 | 2,162 | 2,166 | 2,269 | 2,324 | 2,319 |
| River | 10 | 12 | 11 | 10 | 12 | 5 |
| Air | 12 | 11 | 11 | 10 | 10 | 9 |

Table 10

Comparative Investment Allocations by Sector of the Economy, 1989

| | Estonia | Finland | Sweden |
|-----------------------------------|---------|---------|--------|
| Agriculture | 16.8 | 5.2 | 3.5 |
| Industry | 31.4 | 19.3 | 24.9 |
| Transportation and communications | 14.8 | 11.1 | 10.9 |
| Construction | 3.3 | 2.0 | 2.5 |
| Housing | 13.2 | 29.4 | 24.9 |
| Trade and services | 20.5 | 33.0 | 33.3 |

| | Estonia | Finland | Sweden |
|------------------------------|---------|---------|--------|
| Electric power | 4.2 | 20.0 | 19.3 |
| Fuels | 16.9 | 1.3 | 2.1 |
| Chemicals and petrochemicals | 3.3 | 10.4 | 8.3 |
| Machinery | 18.3 | 14.4 | 31.3 |
| Wood, paper and pulp | 7.0 | 38.8 | 23.2 |
| Construction materials | 8.7 | 3.3 | 2.9 |
| Soft goods | 10.1 | 1.2 | 1.3 |
| Processed foods | 23.4 | 5.7 | 6.8 |
| Other branches | 8.1 | 4.9 | 4.8 |

and its rail network is far more developed, measured both in distance and in electrification. Sweden has a still more elaborate road and rail system.

Estonia's shipping industry is substantial (table 9). The republic has access to the Baltic Sea through a major port at Tallinn. Recent governmental expenditures are intended to bolster shipping and intermodal links. These projects include construction of Tallinn's New Harbor and a rail line between Tallinn and Narva, as well as the purchase of larger ships by the Estonian Merchant Shipping Agency.

Investment. Investment increased rapidly in Estonia in the 1980s as it did in Finland and Sweden (appendix table A-6). As shown in table 10, however, there were major differences in the patterns of investment between Estonia and the two Nordic countries. Consumer-oriented investment in 1989 in housing and services accounted for nearly two-thirds of overall investments in Finland and nearly 60 percent in Sweden, as compared with only 33 percent in Estonia. In contrast, Estonia devoted nearly half of its investment to the industrial and agricultural sectors, roughly double the shares in the Nordic countries.

As in the other republics of the former Soviet Union, collective and state farms absorbed one-sixth of Estonian investment in 1989. In Finland, agriculture, together with forestry and fishing, accounted for just over 5 percent of all investment.

Sharp differences observed in overall investment by sector of the economy are also present in industrial investment patterns (table 11), as is the relative emphasis on consumer goods production. In 1989, one-third of industrial investments in Estonia were focused on the soft goods and food branches as opposed to less than one-tenth in the two Nordic countries. With access to hard currency, Finland and Sweden chose to import processed foods and soft goods from relatively low cost offshore producers and to concentrate new industrial plant and equipment where they had a comparative advantage. Because of its policy of trade autarky, taken together with the lack of hard currency, the former Soviet Union turned inward and Moscow planners focused such investments on the Baltic region with its comparatively higher quality products.

Traditional forest products is another area where there are important differences. Both the Finns and the Swedes devote a far higher percentage share of their investment outlays to this sector than do the Estonians. This reflects, in part, a relatively larger resource base in Sweden and Finland with one-half and three-fifths, respectively, of the land area covered by forest compared to two-fifths in Estonia.

Economic Reform

Estonia drafted comprehensive economic reform plans as early as the mid-1980s and in the late 1980s began to liberalize prices, reform the banking system, and privatize state enterprises. During 1990 and 1991, moreover, Estonia passed laws guaranteeing property rights, spelling out the permitted forms of ownership, and allowing foreign investment. By early 1992 Estonia had freed almost all retail and many wholesale prices, reduced requirements for compulsory deliveries of output to the state, and eliminated nearly all consumer subsidies. In June 1992, Estonia introduced its own currency, the kroon. Estonian citizens were allowed to exchange up to 1,500 rubles for kroons at the rate of 10 to 1 and at a rate of 50 to 1 for more than 1,500 rubles. The Estonian Government declared the kroon fully convertible, pegged to the German mark at an initial rate of 8 kroons to 1 mark.

Privatization. While the majority of Estonians still work in the state sector, new private activity is making noticeable inroads in the economy, including expanding privatization in the socialized portion of agriculture. Up to the mid-1980s, Estonia's farm sector had been increasingly concentrated into ever larger collective and state farms; 335 such units were in existence in 1989. As part of the economic reform program, however, Estonia announced its intention to abolish the state and collective farm system. This change in policy has led to the establishment of many privately operated farms. By March 1991, there were 3,673 private farms occupying 96.1 thousand hectares (237.4 thousand acres) of land or 1 percent of total cultivated land in the country. By May 1992, the number of peasant farms had risen to 7,000. These independent farms are in addition to the so-called private plots that are allotted to members of state and collective farms.

Other sectors of the economy also have been moving toward greater privatization, and, in 1992, Estonia announced a plan to speed up the privatization process by selling off state property. Foremost among the new forms of property are the producer cooperatives, which account for a small but increasing share of the republic's employment and commercial activity. In 1990, for example, 731 private construction cooperatives employed 16,000 workers, accounting for 20 percent of contracted work. Overall, over 5 percent of the work force was employed by cooperatives (table 12).

In addition to cooperatives, there were 4,200 persons engaged in individual labor activities in the first half of 1990, of which 72 percent were involved in domestic trade undertakings and 20 percent in domestic services. Finally, in 1990, Estonia began to implement its plan to sell government-owned and cooperative apartments.

Inflation and Unemployment. Price liberalization and budget deficits have fueled inflation in Estonia. Although data are sketchy, some recent Estonian statistics show that, from the third to the fourth quarters of 1990 alone, prices increased at an annual rate of 117 percent. During the period March 1991 to March 1992, when most price liberalization occurred, the cost of living rose by more than 100 percent per

Table 12 Employment and Sales by Cooperatives, 1988-91^a

| | Number | Employment (thousands) | Sales (million rubles) |
|------|--------|------------------------|------------------------------|
| 1988 | 256 | 4.5 | 8 |
| 1989 | 969 | 21.5 | 102 |
| 1990 | 2,087 | 42.1 | 385 |
| 1991 | 3,191 | 55.5 | 977 |

a As of January 1.

month. Inflation rates during the 1980s of 7.2 percent in Finland and 7.9 percent in Sweden, while high by Western standards, were much lower than in Estonia.

Privatization and closing of inefficient state enterprises have not progressed far enough to create substantial unemployment in Estonia. There are few data on current unemployment, but the first reports show 18,600 unemployed persons in 1990 registering at job placement centers.⁴ This implies an unemployment rate of 2 percent, roughly comparable to the 1.4 to 3.5 percent rate registered in Sweden during the 1980s, and well below the Finnish rate of 3.5 to 5.4 percent.

Foreign Economic Relations

Foreign trade is a major outlet for Estonian production, and a key source of basic necessities. The former republic's small size and relatively poor natural endowments along with the effects of longstanding Soviet industrial development policies explain trade's key role. Most of this trade has been with other republics (see appendix tables A-7 and A-8).

Imports in 1989 accounted for 28 percent of consumption and 85 percent of these imports came from other republics. Estonia is a net importer of energy, metals, chemicals, machinery, building materials, and farm products such as oilseeds, grain, sugar beets, natural fiber, fruits, and vegetables. Machinery is the largest category of imports and amounts to nearly one-third of the total measured in domestic prices. Imports account for over two-fifths of total supplies of consumer goods. Retail supplies of consumer durables

such as refrigerators, radios, television sets, and sewing machines came almost exclusively from other republics and foreign sources.

In 1989, Estonia exported 24 percent of its production with 93 percent of exports in domestic prices going to other republics. Estonia's largest exports are processed foods with fish, meat, dairy, and confectionery products predominating. Estonia is also a net exporter of soft goods, particularly cotton textiles and clothing. Together, processed foods and soft goods account for over half of exports. Sawmill and lumber products, especially furniture and plywood, comprise a third major category of net exports.

Estonia imports about 25 percent of the energy it consumes. Nevertheless, domestic production of oil shale and peat, coupled with imports of coal, gas, and oil, provided the basis for the generation of enough electric power to permit exports. Estonia traditionally has generated most of the electricity for the former USSR's northwest power grid. A more detailed picture of Estonia's fuel and energy trade balance is provided for 1991 (table 13).

Estonia has attracted the most active foreign economic participation of the three Baltic states (table 14). Most outside resources are channeled through joint ventures and joint-stock companies. Based on July 1990 data, Estonia had 105 functioning joint ventures, and the number has risen rapidly since then; as of January 1991, the number had risen to 229.

Nordic countries provide most of the foreign investment in Estonia (table 15). As of April 1991, Sweden's share of foreign capital in joint-stock companies was over 60 percent (table 16).

Many of the Swedish firms involved in Estonia are small- to medium-size providers of services, such as banking and insurance. Larger and more established firms apparently have not yet seen adequate business potential to merit entrance into the Estonian investment market. The greater presence of small-scale service industries probably reflects the lower startup costs and risks associated with this type of enterprise. Discussions in the trade literature suggest that the types of manufacturing by joint ventures that are likely to expand in the near future are woodworking, appliances, and textiles. These have been the most

⁴ All republics of the former Soviet Union are in the process of developing such statistics and corresponding employment policies.

Table 13
Energy Production, Consumption, and Imports, 1991

| | Million Metric Tons | Thousand Barrels Per Day of Oil Equivalent |
|---------------------------|------------------------|---|
| Primary energy production | | |
| Oil shale | 24 | 129.2 |
| Consumption | | |
| Total (percent shares) | 100 | 169 |
| Oil | 48 | |
| Gas | 16 | |
| Coal | 3 | |
| Other a | 33 | |
| Net imports b | | 40 |

a Primary electricity, shale oil, peat.

Table 14 Joint Ventures, 1990

| | Number of Ventures ^a | Exports (thousand rubles) | Imports (thousand rubles) | Sales to Former Soviet Union (thousand rubles) |
|-----------|---------------------------------------|---------------------------|---------------------------|--|
| Estonia | 105 | 2,861 | 3,967 | 2,748 |
| Latvia | 47 | 2,884 | 1,234 | 498 |
| Lithuania | 18 | 541 | 3,057 | 2,627 |

a As of July 1.

technically advanced sectors and will presumably require less retooling and worker retraining to reach international production and quality standards. In addition to these areas, the Estonians are also seeking ties to larger scale foreign manufacturers, including producers of aircraft.

Living Standards and Social Indicators

Personal Income. Estonian workers obtain the bulk of their income from wages and salaries in state enterprises and collective farms. Average incomes in both

Table 15 Foreign Participation in Joint Ventures, 1991 ^a

| | Number of Enterprises | Foreign Capital (million dollars) |
|---------------|--------------------------|-----------------------------------|
| Finland | 137 | 21.8 |
| Sweden | 39 | 24.1 |
| Yugoslavia | NA | 10.6 |
| Germany | 17 | 0.9 |
| United States | 12 | 1.7 |
| Canada | 6 | NA |
| Austria | 6 | 1.0 |
| Soviet Union | 35 | 15.5 b |
| | | |

^a Cumulative commitment of capital as of April 1991.

Table 16 Foreign Capital in Joint-Stock Companies, April 1991 ^a

| | Total Capital (million rubles) | Share of Foreign Capital (percent) |
|---------------|--------------------------------|---------------------------------------|
| Sweden | 23.9 | 62.1 |
| Soviet Union | 7.1 | 20.9 |
| Finland | 3.2 | 9.4 |
| Latvia | 0.9 | 2.6 |
| Gibraltar | 0.5 | 1.5 |
| United States | 0.3 | 0.9 |
| Canada | 0.2 | 0.5 |

^a Joint-stock companies are businesses whose capital is held in transferrable shares of stock by joint owners.

sectors exceed those in the other Baltic republics by substantial amounts. Until the freeing of prices in 1991, wages rose more rapidly than the cost of living. In Estonia, wages are highest on collective and state farms, where the population also obtains substantial amounts of income from work on private plots. In the rest of the state sector, wages are highest in the industrial, construction, transportation, and science branches, and lowest in education, health, and culture (appendix table A-3).

^b Net imports are calculated by subtracting production from consumption.

^b Million rubles.

Until recently, little information was available on the distribution of income within the Soviet Union and its republics. Data available for 1990 shown in table 17, before rapid inflation set in, show that 3.3 percent of the population in Estonia had incomes below 100 rubles a month, generally taken as the poverty line. In contrast, 20 percent of the population had incomes over 300 rubles per month.

Although comparative statistics on income distribution are difficult to obtain, data available suggest that incomes are distributed less unequally in Estonia than in relatively egalitarian Sweden and much less so than in Finland.

In 1988, Estonian families spent nearly three-fourths of their aftertax incomes on food, clothing, and durables. Conversely, a mere one-tenth went to purchase services. Provision of personal and repair services for the population has been a relatively neglected sector of the Estonian economy. Although the underground economy supplies additional services, their overall share in household consumption is extremely small by Western standards. Their poor quality and intermittent availability have been the subjects of an endless stream of complaints aired in the press.

Food Consumption. The caloric content of the average daily diet in the 1980s in Estonia, Finland, and Sweden exceeded both US and internationally recommended dietary allowances. Estonians consumed foods containing 3,107 calories (1988-90 average) versus 2,805 calories for Finns and 3,454 calories for Swedes (1986-88 average). In Estonia, the share of calories from starchy staples (potatoes and grain products), a rough indicator of dietary quality, was at or above the level of the developed West, while the ratios in Finland and Sweden were below it. All three countries relied heavily on animal products as a source of calorie intake, but Estonia at 55 percent was 4 percentage points above Finland and 16 percentage points above Sweden. Common forces operate to produce the similarity in diet. Cold winters and short growing seasons limit the variety and quantity of vegetables and fruits. Relatively high incomes induce consumers to substitute animal products, vegetable oils, fats, and other "quality" foods for the "inferior" starchy staples.

Table 17
Distribution of the Estonian Population by Monthly Income Per Capita, 1990 a

| Average Monthly Income in Rubles | Percent of Population |
|----------------------------------|-----------------------|
| Less than 75 | 0.6 |
| 75.1 to 100.0 | 2.7 |
| 100.1 to 150.0 | 15.4 |
| 150.1 to 200.0 | 23.6 |
| 200.1 to 250.0 | 21.7 |
| 250.1 to 300.0 | 16.2 |
| More than 300.0 | 19.8 |

a Includes pensioners.

Inventories of Selected Consumer Durables. Estonia. along with the other Baltic republics, was better off than the rest of the former Soviet Union in terms of ownership of consumer durables. At the end of 1988, for example, Estonia had 126 cars per 1,000 population, more than twice the national average. Automobile ownership in Estonia was facilitated by a hardsurface road system that provided four times more mileage per capita than for the former Soviet Union as a whole. Estonians were also comparatively much better off in terms of several other durables and possession of home telephones. Nonetheless, Finland and Sweden, as would be expected, have much higher ownership rates of consumer durables. Equally important is the higher quality of durables resulting in greater reliability, enhanced operating life, and fewer repairs:

| | | | Holdings per 1,00e Population, 198 | |
|--------------|---------|-----------|---------------------------------------|--|
| Durable Good | Estonia | Finland a | Sweden a | |
| Telephones | 217 | 590 | 890 | |
| Televisions | 371 | 480 | 393 | |
| Automobiles | 126 | 320 | 380 | |

a 1984.

Housing. As of the late 1980s, the provision of housing in Estonia was well below that in the reference countries and its quality poorer. In terms of

general living space per capita, the average Estonian was provided with 21.3 square meters, 18.8 square meters in urban areas, and 27.5 square meters in rural areas. By contrast, the average Finn had 30.5 square meters. In 1989, three-quarters of all urban housing was owned by the state in Estonia, and the remainder was held privately or by cooperatives. Somewhat over half of rural housing was owned privately. Although Estonians fared well, as compared with most other republics, a substantial share of housing still lacks basic amenities, especially in rural areas. As the data below indicate, Estonia lags well behind the two Nordic countries on this measure:

| | Share of Housing Equipped Amenities (Per | | | |
|--------------------|---|-------------------|------------------|--|
| Utility | Estonia (1989) | Finland (1988) | Sweden (1985) | |
| Running water | 85 | 95 | 97 ь | |
| Hot water | 57 | 89 | NA | |
| Central heating | 65 | 88 | 99 | |
| Flush toilets | 85 | 92 | 98 | |
| Bathing facilities | 69 | 87 | 96 | |

<sup>a End of year shown. The figures for Estonia do not include rural private housing, much of which probably lacks most amenities.
b Figure is for 1970, the last date reported.</sup>

Rents on state-owned housing are low and heavily subsidized. They cover only about one-fifth of the cost of current maintenance, and much housing is in disrepair. Despite the low rents, housing conditions are the subject of much complaint. In 1989, 29 percent of Estonian families were on waiting lists for better housing. This was the case despite a sizable government program to build new housing in the 1980s.

Pensions, Health, and Welfare. As in all former Soviet republics, the Estonian people are covered by a state-provided system of "cradle-to-grave" social security to which they have not been required to contribute directly. Old-age, survivor, and disability pensions are provided. Both the nominal value of Estonian pensions and the extent of the population

covered increased during the 1980s. Reflecting mainly the aging of the population, the number of pensioners grew by roughly 15 percent, while monetary value rose by 48 percent. The totals, however, mask certain important differences by subgroup: the number of collective farm pensioners dropped by one-fifth while the size of their pensions grew by 83 percent, bringing their retirement incomes to 91 percent of that received in the state sector. Old-age pensioners are the most numerous and their average pensions have been relatively low, less than 40 percent of the average monthly wage. Although many pensioners have some other income, the incidence of poverty among them is large. Roughly half of state old-age pensioners and some three-quarters of those on collective farms received pensions of less than 100 rubles per month in 1987.

As in Estonia, the populations of Finland and Sweden are covered by comprehensive social welfare programs. Although comparisons on such complex matters are tenuous, it appears that the Nordic countries' social safety nets are more inclusive and protective than their Estonian counterpart. Thus, nearly 100 percent of the eligible population receives old-age pensions in Finland and Sweden; Estonia's net extended to 91 percent in 1989. Both Nordic countries' programs are fully indexed to the cost of living and hence protect the pensioner against the ravages of inflation.

As with pensions, Estonia's health care system cannot be readily compared to those found in Finland and Sweden. Institutional differences are vast: Estonia follows the centralized Soviet model where there is little role for family doctors and private practice. Moreover, medical training and support facilities do not meet Western quality standards. For these reasons, it is more appropriate to base comparisons on the results of the health care systems. The life expectancy of Estonians was lower than in the reference countries—71 years for both sexes combined (1989) compared with 76 years in Finland (1990) and 77 years in



New housing in Tallinn

Sweden (1990). Although infant mortality was lower in Estonia than in most of the republics of the former Soviet Union, its rate of 14 to 16 deaths per 1,000 births (probably understated) was far greater than in the Nordic countries. In 1988, Finland's infant mortality was 6.1 deaths per 1,000 births and Sweden's was 5.8 deaths per 1,000 births. For all other age groups, the main causes of death in Estonia (as well as in Finland and Sweden) were cardiovascular diseases and cancer.

Other Social Indicators. A collection of social indicators describing other aspects of Estonian society is shown in table 18. It is not meant to be an exhaustive index of social conditions in the society but is intended to pinpoint areas where tensions exist or could develop.

Strikes in the workplace have become increasingly common in the former Soviet republics. As of 1989, workdays lost to strikes in Estonia were marginally above the level in Finland, but well below that in Sweden. The suicide rate in Estonia was roughly the same as in Finland, but higher than in Sweden by 40 percent. In contrast, the divorce rate in Sweden was twice as high as in Estonia.

Another indicator of social malaise is the extent of crime. The data show that the overall level of crime in Estonia is much less than that in the two Nordic countries and is correspondingly less in most of the

Table 18 Social Indicators

| | Estonia | Finland | Sweden |
|---|----------|----------|----------|
| Consumption measures | | | |
| Per capita living space, 1989 (square meters per capita) | 21.5 | 30.5 | NA |
| Entertainment expenditures, 1989 (rubles, wage and salary workers) | 20.6 | NA | NA |
| Doctors, 1989 (of all specialties per 100,000 persons) | 483.0 | 238.0 | 281.0 |
| Options | | | |
| Access to day care, 1989 (preschools per 1,000 children of preschool age) | 60.0 | NA | NA |
| Savings, 1989 (average deposit per person, rubles) | 2,039.0 | NA | NA |
| Vacation time, 1989 (days per year in industry) | 22.2 | NA | NA |
| Risks | | | |
| Lost labor due to illness, 1989 (days per year in industry) | 9.3 | NA | NA |
| Pensions paid, 1989 (rubles per person) | 874.0 | NA | NA |
| Per capita expenses on labor safety, 1987 (rubles) | 64.7 | NA | NA |
| Victimization/crime, 1989 (personal crimes per 100,000 persons) | 12,651.0 | NA | NA |
| Percent below poverty line, 1989 (disposable income below 100 rubles) | 7.9 | NA | NA |
| Labor discipline | | | |
| Strikes, 1989 (worktime lost in thousand workdays per 1,000 state sector employees) | 26.5 | 21.5 | 91.8 |
| Alcoholism and drug abuse | | | |
| Alcoholism, 1989 (cases per 100,000 persons) | 85.0 | NA | NA |
| Drug abuse, 1989 (cases per 100,000 persons) | 3.3 | NA | NA |
| Alcohol-related deaths, 1989 (deaths per 100,000 persons) | 9.7 | NA | NA |
| Crime rates | | | |
| All crimes, 1989 (per 100,000 persons ages 15 to 69 or 67) | 1,746.4 | 10,255.0 | 17,444.0 |
| Murder | 37.6 | 4.0 | 2.6 |
| Assault | 888.8 | 571.0 | 689.0 |
| Rape | 4.7 | 11.6 | 25.4 |
| Robbery | 5.6 | 60.2 | 90.5 |
| Theft | 310.0 | 4,856.0 | 11,874.0 |
| Fraud | 8.5 | 1,740.0 | 1,614.0 |
| Suicides | | | |
| Totals, 1988 (per 100,000 persons) | 24.3 | 26.7 | 17.3 |
| Family structure and divorce | | | |
| Divorce rate, 1989 (per 1,000 persons) | 3.8 | NA | 8.1 |

subclasses of crime. However, the crime indicator that is most reliable across time and geographic space, the murder rate, tells a different story. In this category, Estonia's rate is much higher than in Finland or

Sweden. The assault figures also support this impression of greater physical violence. On the other hand, if rape is treated as a violent crime, then conditions in the Nordic countries are much worse.

Appendix

Selected Economic Statistics

Table A-1
Estonia: Births, Deaths, and
Natural Growth of the Population

Per 1,000 persons Table A-2

Estonia: Population Structure, 1989

| | 1970 | 1980 | 1985 | 1986 | 1987 | 1988 | 1989 |
|----------------|------|------|------|------|------|------|------|
| Births | 15.8 | 15.1 | 15.4 | 15.6 | 16.0 | 15.9 | 15.4 |
| Deaths | 11.1 | 12.3 | 12.6 | 11.6 | 11.7 | 11.8 | 11.7 |
| Natural growth | 4.7 | 2.8 | 2.8 | 4.0 | 4.3 | 4.1 | 3.7 |

| | Thousand Persons | Share (percent) |
|---------------|---------------------|-----------------|
| Total | 1,566 | 100.0 |
| Estonians | 963 | 61.5 |
| Russians | 475 | 30.3 |
| Ukrainians | 48 | 3.1 |
| Byelarussians | 28 | 1.8 |
| Finns | 17 | 1.1 |
| Jews | 5 | 0.3 |
| Tatars | 4 | 0.3 |
| Germans | 3 | 0.2 |
| Latvians | 3 | 0.2 |
| Other | 20 | 1.2 |

Table A-3
Estonia: Average Monthly Wages for Wage and Salary Workers by Branch of the Economy

| Ru | bles | |
|----|------|--|
| | | |

Table A-4 Estonia: The Structure of Industrial Output, 1989 ^a

| | 1980 | 1985 | 1988 | 1989 |
|---|-------|-------|-------|-------|
| All branches | 188.7 | 215.1 | 249.2 | 270.1 |
| Industry | 204.7 | 232.2 | 268.0 | 292.6 |
| Agriculture | 193.6 | 248.6 | 274.2 | 293.6 |
| Forestry | 161.1 | 180.9 | 209.3 | 211.4 |
| Transportation | 215.2 | 240.3 | 279.2 | 295.1 |
| Railroad | 171.8 | 203.7 | 245.2 | 263.0 |
| Water | 215.0 | 238.4 | 287.1 | 313.5 |
| Automobile, urban, and freight transportation | 226.1 | 249.1 | 286.8 | 307.7 |
| Communications | 154.3 | 169.8 | 207.6 | 223.4 |
| Construction | 226.4 | 267.2 | 319.1 | 354.1 |
| Trade and public dining, material-technical supply, and procurement | 150.1 | 166.0 | 194.7 | 222.5 |
| Information-processing services | NA | NA | 226.3 | 285.3 |
| Other production | 130.2 | 139.3 | 167.5 | 174.2 |
| Housing-communal economy and domestic services | 155.4 | 181.3 | 202.5 | 216.7 |
| Health | 141.7 | 155.1 | 180.6 | 179.5 |
| Education | 145.4 | 163.4 | 192.0 | 192.9 |
| Culture | 137.1 | 150.3 | 159.6 | 177.8 |
| Art | 163.5 | 164.8 | 199.0 | 210.5 |
| Science | 184.3 | 203.9 | 251.1 | 306.1 |
| Credit and social security | 165.2 | 187.0 | 255.1 | 250.1 |
| Government adminis- | 173.2 | 191.9 | 225.5 | 287.7 |

trative services

| | Million Rubles | Share |
|------------------------------|-------------------|-------|
| Total industry | 5,659 | 100.0 |
| Electric power | 340 | 6.0 |
| Fuel | 146 | 2.6 |
| Chemicals and petrochemicals | 518 | 9.1 |
| Machinery | 814 | 14.4 |
| Wood, pulp and paper | 514 | 9.1 |
| Construction materials | 203 | 3.6 |
| Soft goods | 1,494 | 26.4 |
| Processed foods | 1,353 | 23.9 |
| Other branches | 277 | 4.9 |

^a Expressed in ruble values of gross output.

Table A-5
Estonia: Production of Selected Industrial Products and Materials

| | 1980 | 1985 | 1986 | 1987 | 1988 | 1989 |
|---|---------------|---------|------------|---------|----------|---------|
| Primary energy | | | | | | |
| Electric power (billion kWh) | 18.9 | 17.8 | 18.0 | 17.9 | 17.6 | 17.6 |
| Natural gas (million cubic meters) | 453.0 | 193.0 | 150.0 | 121.0 | | |
| Peat (thousand metric tons) | 918.0 | 430.0 | 778.0 | 500.0 | 752.0 | 872.0 |
| Oil Shale (million metric tons) | 31.3 | 26.4 | 24.9 | 24.9 | 23.3 | 23.3 |
| Minerals and metals | 1993144444 | | 31001 0001 | | | |
| Crude steel (thousand metric tons) | 11.6 | 12.2 | 12.2 | 11.9 | 11.6 | 11.1 |
| Products from metal powder (tons) | | 232.0 | 234.0 | 215.0 | 199.0 | 177.0 |
| Machinery | | | | | | |
| Excavators (thousand units) | 2.3 | 2.1 | 2.1 | 2.2 | 2.1 | 1.6 |
| Precision instruments (thousand units) | 8.8 | 6.8 | 7.0 | 7.2 | 7.3 | 6.1 |
| Hot stampings (thousand metric tons) | 5.9 | 5.2 | 5.4 | 5.2 | 4.7 | 4.6 |
| Wire (thousand metric tons) | 11.2 | 14.1 | 14.4 | 14.5 | 15.3 | 14.2 |
| Chemicals | | | | | | |
| Mineral fertilizers (thousand metric tons) | 267.9 | 243.5 | 255.6 | 257.3 | 245.0 | 214.0 |
| Sulfuric acid (thousand metric tons) | 506.2 | 615.7 | 654.0 | 653.0 | 654.2 | 552.4 |
| Sulfur (tons) | 4,395.0 | 3,629.0 | 3,698.0 | 2,715.0 | 2,587.0 | 2,110.0 |
| Lacquers and enamels (tons) | 3,744.0 | 3,806.0 | 3,806.0 | 4,063.0 | 3,831.0 | 3,437.0 |
| Detergents (thousand metric tons) | 26.5 | 34.5 | 36.8 | 37.2 | 39.7 | 40.8 |
| Forestry products | | | | | 25000000 | |
| Timber production (thousand cubic meters) | 2,530.0 | 2,668.0 | 2,761.0 | 2,760.0 | 2,728.0 | 2,538.0 |
| Sawn timber (thousand cubic meters) | 637.0 | 668.0 | 708.0 | 666.0 | 675.0 | 585.0 |
| Plywood (thousand cubic meters) | 30.3 | 32.0 | 33.1 | 33.3 | 32.9 | 30.8 |
| Paper (thousand metric tons) | 93.0 | 90.0 | 95.0 | 90.0 | 95.0 | 92.0 |
| Cardboard (thousand metric tons) | 4.9 | 4.2 | 3.9 | 4.6 | 4.8 | 4.9 |
| Construction materials | | | | | | |
| Cement (thousand metric tons) | 1,213.0 | 1,094.0 | 1,118.0 | 1,161.0 | 1,200.0 | 1,129.0 |
| Construction bricks (million units) | 267.0 | 255.1 | 251.1 | 243.5 | 253.5 | 263.1 |
| Soft roofing materials (million square meters) | 34.4 | 36.0 | 37.0 | 37.4 | 37.6 | 32.2 |
| Processed foods | 31.1 | 2010 | | | | |
| Meat (industrial production) (thousand metric tons) | 155.0 | 179.0 | 180.0 | 185.0 | 186.0 | 187.0 |
| Sausage products (thousand metric tons) | 45.0 | 48.5 | 100.0 | 100.0 | 50.1 | 49.7 |
| Milk (thousand metric tons) | 43.0 | 40.5 | 1,057.4 | 1,085.1 | 1,089.8 | 1,085.0 |
| Butter (thousand metric tons) a | 30.0 | 32.0 | 33.0 | 34.0 | 32.0 | 31.0 |
| Margarine (thousand metric tons) | 6.9 | 7.4 | 0010 | | 7.2 | 7.2 |
| Cheese (thousand metric tons) | 12.1 | 15.2 | | | 17.4 | 16.9 |
| Confectionery goods (thousand metric tons) | 46.5 | 47.9 | 49.0 | 51.2 | 52.9 | 53.8 |
| Macaroni (thousand metric tons) | 6.0 | 6.3 | 6.3 | 6.6 | 6.5 | 6.4 |
| Soft goods | 0.0 | 0.5 | 0.5 | 0.0 | 0.0 | 0.1 |
| Cotton textile fabric (million square meters) | 178.4 | 197.8 | 198.8 | 194.7 | 192.4 | 187.5 |
| Wool fabric (million square meters) | 7.1 | 7.5 | 7.5 | 7.9 | 7.8 | 7.6 |
| Linen fabric (million square meters) | 8.0 | 11.4 | 11.0 | 11.2 | 11.5 | 11.4 |
| Silk fabric (million square meters) | 6.9 | 8.6 | 8.6 | 8.9 | 11.2 | 10.8 |
| Stocking-hosiery goods (million pairs) | 14.1 | 15.5 | 15.9 | 16.5 | 16.8 | 17.0 |
| Knitted goods (million units) | 18.5 | 22.2 | 22.7 | 23.0 | 22.9 | 23.9 |
| Shoes (million pairs) | 5.8 | 5.8 | 6.4 | 6.8 | 6.9 | 7.1 |
| Matches (thousand boxes) | 234700000 044 | 971.9 | 797.5 | 810.1 | 800.1 | 800.8 |
| | 911.6 | | | | 204.2 | 189.2 |
| Furniture (billion rubles) | 95.7 | 173.9 | 176.1 | 185.5 | 204.2 | 107.2 |

^a Milk production does not include private farm production.

Table A-6

Estonia: Capital Investment, by Sector of the Economy, Selected Years

Million rubles a

| 1980 | 1985 | 1986 | 1987 | 1988 | 1989 |
|------|--------------------------------------|---|---|--|---|
| 934 | 1,110 | 1,190 | 1,182 | 1,282 | 1,361 |
| 271 | 318 | 327 | 327 | 379 | 427 |
| 209 | 192 | 224 | 216 | 242 | 229 |
| 90 | 177 | 184 | 174 | 185 | 202 |
| 42 | 48 | 49 | 40 | 40 | 45 |
| 146 | 171 | 180 | 185 | 184 | 179 |
| 176 | 204 | 226 | 240 | 252 | 279 |
| | 934 271 209 90 42 146 | 934 1,110 271 318 209 192 90 177 42 48 146 171 | 934 1,110 1,190 271 318 327 209 192 224 90 177 184 42 48 49 146 171 180 | 934 1,110 1,190 1,182 271 318 327 327 209 192 224 216 90 177 184 174 42 48 49 40 146 171 180 185 | 934 1,110 1,190 1,182 1,282 271 318 327 327 379 209 192 224 216 242 90 177 184 174 185 42 48 49 40 40 146 171 180 185 184 |

^a Official statistical abstracts state that these data are in constant prices. Other evidence suggests considerable inflation.

Table A-7 Estonia: Trade in Domestic Prices, 1989 ^a

Million rubles

| | Total Fore | ign Trade | Interrepub | lic Trade | Internation | nal Trade |
|------------------------------|------------|-----------|------------|-----------|-------------|-----------|
| | Exports | Imports | Exports | Imports | Exports | Imports |
| Total | 3,123 | 3,818 | 2,903 | 3,231 | 220 | 587 |
| Industry | 2,906 | 3,564 | 2,690 | 3,106 | 216 | 458 |
| Electric power | 119 | 24 | 119 | 13 | | 11 |
| Oil and gas | 8 | 267 | 8 | 267 | | |
| Ferrous metals | 11 | 123 | 6 | 118 | 6 | 5 |
| Nonferrous metals | 8 | 93 | 8 | 92 | | |
| Chemicals and petrochemicals | 324 | 541 | 316 | 494 | 7 | 47 |
| Machinery | 561 | 1,128 | 539 | 1,054 | 22 | 74 |
| Lumber | 132 | 93 | 113 | 85 | 19 | 8 |
| Building materials | 28 | 52 | 27 | 48 | 1 | 4 |
| Soft goods | 878 | 738 | 830 | 534 | 48 | 205 |
| Processed foods | 757 | 416 | 651 | 316 | 106 | 100 |
| Other industries | 79 | 89 | 73 | 85 | 7 | 4 |
| Agriculture | 35 | 185 | 32 | 57 | 4 | 128 |
| Other | 182 | 69 | 181 | 67 | 1 | 2 |

^a Because of rounding, components may not add to totals shown.

Table A-8 Estonia: Trade in Foreign Trade Prices, 1989 ^a

Million rubles

| | Total Foreign Trade | | Interrepublic Trade | | International Trade | |
|------------------------------|---------------------|---------|---------------------|---------|---------------------|---------|
| | Exports | Imports | Exports | Imports | Exports | Imports |
| Total | 2,084 | 3,487 | 1,959 | 3,192 | 125 | 294 |
| Industry | 1,889 | 3,306 | 1,766 | 3,100 | 123 | 206 |
| Electric power | 179 | 41 | 179 | 19 | | 22 |
| Oil and gas | 13 | 447 | 13 | 447 | | |
| Ferrous metals | 14 | 138 | 7 | 131 | 7 | 7 |
| Nonferrous metals | 13 | 143 | 13 | 143 | | |
| Chemicals and petrochemicals | 235 | 403 | 230 | 372 | 5 | 32 |
| Machinery | 623 | 1,575 | 594 | 1,515 | 28 | 60 |
| Lumber | 73 | 62 | 64 | 57 | 9 | 5 |
| Building materials | 29 | 46 | 28 | 45 | 1 | 1 |
| Soft goods | 276 | 236 | 258 | 183 | 18 | 53 |
| Processed foods | 350 | 134 | 302 | 110 | 48 | 25 |
| Other industries | 84 | 81 | 78 | 78 | 7 | 1 |
| Agriculture | 11 | 109 | 10 | 22 | 1 | 87 |
| Other | 184 | 72 | 184 | 71 | 1 | 1 |

^a Because of rounding, components may not add to totals shown.

