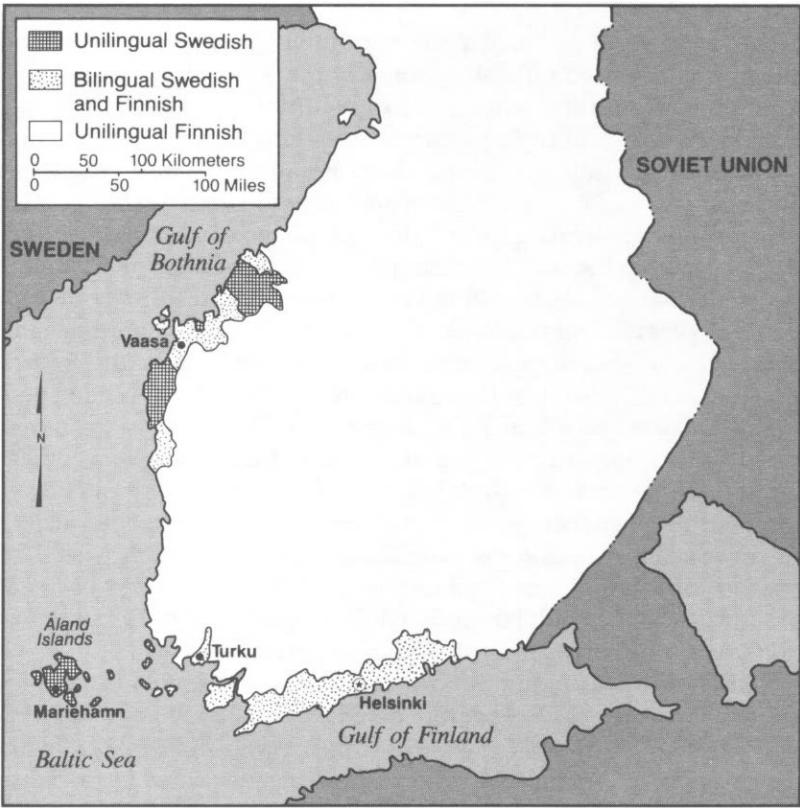


## Finland: A Country Study



Source: Based on information from Erik Allardt and Karl Johan Miemois, *The Swedish-Speaking Minority in Finland*, Helsinki, 1981, 56.

*Figure 12. Language Areas of Finland, 1976*

relative terms, however, it has been in decline for centuries, dropping from 17.5 percent in 1610, and it was expected to go below 6 percent by the end of the twentieth century. The decline stemmed from a variety of factors: a slightly lower birth rate than the rest of the population during some periods; a greater rate of emigration to the United States before World War I; a large loss of some 50,000 persons who settled permanently in Sweden in the decades after World War II; and frequent marriages with Finnish speakers.

By the 1980s, more than half the marriages of Swedish-speaking Finns were to persons from outside their language group. In urban areas, especially in Helsinki, the rate was over 60 percent. This was not surprising because the members of the minority group were usually bilingual, and there were no legal constraints (although there were sometimes social and familial constraints) against marrying

those speaking the majority language. The bilingualism of the minority was caused by compulsory schooling in the majority language from the third school year on, and from living in a society where, with the exception of some rural areas, speaking only Swedish was a serious handicap because the majority group usually had a poor knowledge of Swedish, despite compulsory study of it for several years. Swedish-speaking Finns were easily able then to cross from one language group to another. However highly they valued their mother tongue and their group's cultural identity, they were not bound by them when selecting friends or spouses. A survey of the late 1970s found, for example, that Swedish-speaking natives of Helsinki felt they had more in common with natives of their city who did not speak their language than they did with Swedish speakers from other regions. More often than not, Swedish-speaking Finns married outside their group. These marriages posed a danger to their language community in that the resulting offspring were usually registered as speakers of the majority language, even when they were truly bilingual. Thus the Finnish practice of counting speakers of a language by the principle of personality, that is on an individual basis, rather than by the principle of territoriality, as was done only for the Åland Islands, was leading to a decline in the size of the Swedish-speaking minority.

## **Gypsies**

Gypsies have been present in Finland since the second half of the sixteenth century. With their unusual dress, unique customs, and specialized trades for earning their livelihood, Gypsies have stood out, and their stay in the country has not been an easy one. They have suffered periodic harassment from the hands of both private citizens and public officials, and the last of the special laws directed against them was repealed only in 1883. Even in the second half of the 1980s, Finland's 5,000 to 6,000 Gypsies remained a distinct group, separated from the general population both by their own choice and by the fears and the prejudices many Finns felt toward them.

Finnish Gypsies, like Gypsies elsewhere, chose to live apart from the dominant societal groups. A Gypsy's loyalty was to his or her family and to Gypsies in general. Marriages with non-Gypsies were uncommon, and the Gypsies' own language, spoken as a first language only by a few in the 1980s, was used to keep outsiders away. An individual's place within Gypsy society was largely determined by age and by sex, old males having authority. A highly developed system of values and a code of conduct governed a Gypsy's behavior, and when Gypsy sanctions, violent or not, were imposed,

for example via "blood feuds," they had far more meaning than any legal or social sanctions of Finnish society.

Unlike the Lapps, who lived concentrated in a single region, the Gypsies lived throughout Finland. While most Lapps wore ordinary clothing in their everyday life, Gypsies could be identified by their dress; the men generally wore high boots and the women almost always dressed in very full, long velvet skirts. Like most Lapps, however, Gypsies also had largely abandoned a nomadic way of life and had permanent residences. Gypsy men had for centuries worked as horse traders, but they had adapted themselves to postwar Finland by being active as horse breeders and as dealers in cars and scrap metal. Women continued their traditional trades of fortune telling and handicrafts.

Since the 1960s, Finnish authorities have undertaken measures to improve the Gypsies' standard of living. Generous state financial arrangements have improved their housing. Their low educational level (an estimated 20 percent of adult Gypsies could not read) was raised, in part, through more vocational training. A permanent Advisory Commission on Gypsy Affairs was set up in 1968, and in 1970 racial discrimination was outlawed through an addition to the penal code. The law punished blatant acts such as barring Gypsies from restaurants or shops or subjecting them to unusual surveillance by shopkeepers or the police.

### **Jewish and Muslim Communities**

In the 1980s, there were about 1,300 Jews in Finland, 800 of whom lived in Helsinki and most of the remainder of whom lived in Turku. During the period of Swedish rule, Jews had been forbidden to live in Finland. Once the country became part of the Russian Empire, however, Jewish veterans of the tsarist army had the right to settle anywhere they wished within the empire. Although constrained by law to follow certain occupations, mainly those connected with the sale of clothes, the Jewish community in Finland was able to prosper, and in 1890 it numbered about 1,000. Finnish independence brought complete civil rights, and during the interwar period there were some 2,000 Jews in Finland, most of them living in urban areas in the south. During World War II, Finnish authorities refused to deliver Jews to the Nazis, and the country's Jewish community survived the war virtually intact. By the 1980s, assimilation and emigration had significantly reduced the size of the community, and it was only with some difficulty that it maintained synagogues, schools, libraries, and other pertinent institutions.

The Muslim community in Finland was even smaller than the

Jewish community; it numbered only about 900, most of whom were found in Helsinki. The Muslims first came to Finland from Turkey in the mid-nineteenth century and have remained there ever since, active in commerce. Like their Jewish counterparts, Finnish Muslims, because of their small number, have had difficulty maintaining all the institutions needed by a social group.

## **Religion**

The right to worship freely is guaranteed by Article 8 and Article 9 of the Constitution of 1919 and by the Freedom of Religion Act that went into effect in 1923. In the 1980s, there were about thirty registered religions in the country, all of which met the minimum requirement of having at least thirty followers. Despite this wealth of religions, the country's religious life was dominated by one of its two state churches, the Lutheran Church of Finland, which had nearly 90 percent of the population as members. The other state church, the Orthodox Church of Finland, had a membership of about 1 percent of the population. The remaining churches or religions had 2 percent of the people in their congregations. Followers of the smaller churches included Jews, Muslims, Roman Catholics, a variety of Protestants, Mormons, Christian Scientists, and converts to eastern religions. Seven percent belonged to no church.

## **Role of Religion**

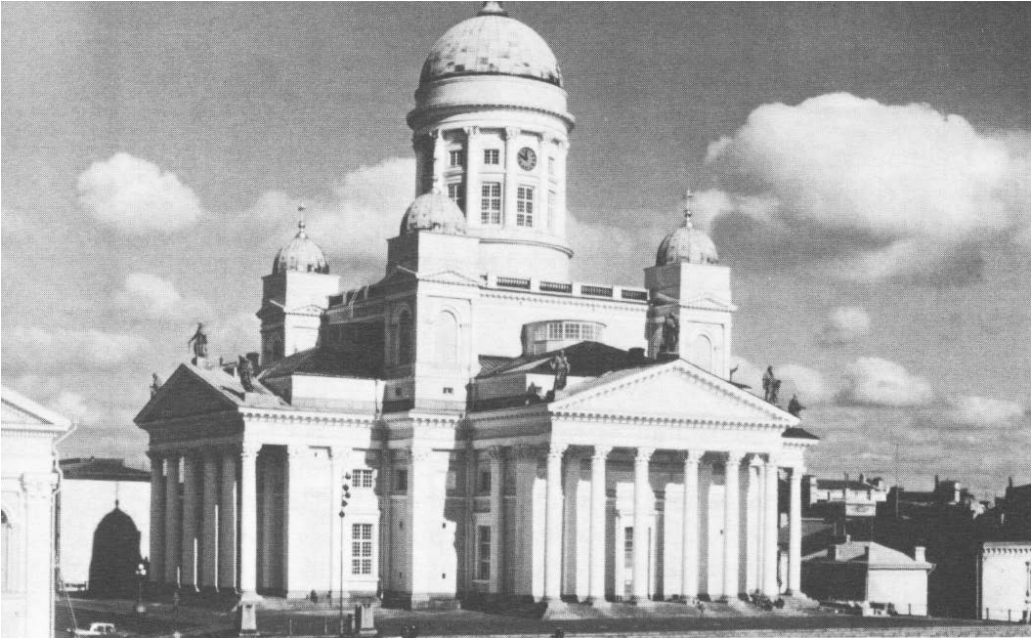
Religion was a part of public life in a variety of ways. The celebration of the gaining of Finnish independence on December 6 had a religious component, as did the annual opening of the Eduskunta. There were three religious holidays when public entertainments were not permitted. The state churches kept the official records of their members' civil status, and the vast majority of marriages were performed in the state churches and had the same legal status as a civil ceremony. Church members paid a church tax that was collected and paid to the churches by state authorities. Persons wishing to leave one of the state churches had to do so formally, and records of this decision were maintained. Religious instruction was a regular part of the schools' curricula, and children wishing to be excused from it had to request the right to take a substitute course. The armed forces had chaplains, the highest of whom was a bishop, and their services were, in practice, usually obligatory for recruits. Chaplains' salaries were paid by the state, as were those of the higher clergy of the two state churches. The oath generally used in court had a religious content, though non-believers had the right to one that made no reference to a deity

and instead was only a solemn affirmation of the truth of their testimony. Although it was rarely invoked, there was a Finnish law against blasphemy. Numerous religious programs and services were broadcast on the country's state radio and television networks.

Much of this religious influence was based in Finland's past, however, and did not correspond with attitudes of most Finns, because by the 1980s the country had become a highly secularized society. Polls revealed, for example, that about 70 percent of the population believed in God, a good deal fewer than the 90 percent who belonged to the state churches. About 40 percent of the population believed that the best place to find God was in the Bible, but only about 10 percent read it at least once a week, striking figures for a Protestant country. Frequent church attendance was unusual. Surveys conducted during the 1980s found that perhaps as few as 4 percent went to church every Sunday, about 12 percent went once a month, and 43 percent went at least once during the course of a year.

These figures did not give a complete picture of Finnish religious life, however. Finland's pietist traditions meant that there was much private prayer as opposed to public worship; about one-third of Finns under the age of thirty-five and more than half of those above this age reportedly prayed every week. In addition, the Lutheran Church touched the lives of many Finns through its considerable social work and counseling, although these activities were often not strictly religious in nature.

The role the state churches played in life's key moments made them, for reasons of tradition, important to most Finns, even to those who were not religious. More Finns were baptized, married, and buried with church rites than were members of the churches. A very important rite of passage for adolescents was confirmation, which signified a coming of age even for those from freethinking families. For this reason, more than 90 percent of 15-year-olds were confirmed, despite the several weeks of lessons this entailed. Although church membership was a routine affair for many, polls conducted in the 1970s and the 1980s consistently found that only about 10 percent of those interviewed had given any serious thought to leaving a state church, even though freedom from the church tax would mean a small financial gain. For many Finns, leaving their church would be too great a break with family and community traditions. In addition, some of the values that churches had traditionally stood for had been internalized. Observers noted, for example, that although Finland had undoubtedly become more secularized since World War II, particularly in the urban areas, the traditional Lutheran virtues of hard work and self-discipline,



*Helsinki Cathedral  
Courtesy Embassy of Finland, Washington*

inculcated over the centuries, were still evident in the lives of most Finns.

### **Lutheran Church of Finland**

Religious life in Finland since the Protestant Reformation has been dominated by the Lutheran Church of Finland. For most of this period, almost all Finns belonged to it. In the late 1980s, about 90 percent of the population were members, and an even greater number participated in its rituals. During the time of Swedish rule, the church was the country's state church, and it was part of the national government, subordinate to the Swedish king. Even when headed during the nineteenth century by Russian tsars of the Orthodox faith, the Lutheran Church remained a state church. Since 1809, however, it has had to share this distinction with the Orthodox Church, which had followers in the eastern province of Karelia.

The Ecclesiastical Law of 1869 gave the Lutheran Church a measure of independence from the state by allowing it a representative body, the Synod, that could decide many important church matters on its own. When Finland became independent, the church gained a greater degree of autonomy, although it still was subject to state supervision. The president, for example, decided who was to become a bishop, using a list of three candidates submitted by the Lutheran Church. In 1943 the formation of its own central

administration, separate from the Ministry of Education, meant the church was largely self-sufficient. Some practical matters, such as levels of church taxes, salaries and pensions, or reorganization of church districts, were still decided by the government or required its approval, but in many other matters the church set its own course.

A study commission of 1977 recommended a greater separation of church and state as a goal for Finnish society. The next decade's discussion of abolishing the presidential selection of bishops was one example of efforts to realize this goal. The gradual movement away from the national government meant that the Lutheran Church of Finland, although still a state church, was more independent than the other Lutheran churches of the Nordic region. This independence was so marked that students of religion commonly regarded it not so much as a state church, but as a folk church that served all Finns, members and nonmembers alike.

### ***Revivalist Movements Within the Lutheran Church***

Another characteristic of the Lutheran Church of Finland that distinguished it from the other Lutheran churches of the Nordic countries was the strong tradition of revivalism that flourished within it. Elsewhere, revivalists left the state churches and founded their own. Although Finnish revivalist movements at first seemed a threat to the state church, ecclesiastical authorities came to learn that these new currents of religious feeling could enrich the church rather than diminish it. Since the nineteenth century, about half a dozen distinct movements had found a secure and enduring place within the established church. This meant that the Lutheran Church in Finland did not experience recurring splits caused by members dissatisfied for reasons of doctrine or temperament. The enthusiasm and the fervor of the revivalists were a frequent tonic to the state church, and their presence within it allowed the church closer ties to the whole of the Finnish people than would otherwise have been possible.

The revivalist movements remained distinctly Lutheran; they adhered to the doctrine of justification by faith alone as the center of preaching and teaching, and made clear demarcations between the Kingdom of God and the material world. Worldly pleasures were generally decried, with a varying degree of emphasis being placed instead on abstinence, faith, abnegation, and prayer. The faithful could go to God directly without the church and clergy as intermediaries. Priestly intervention was not necessary in the spiritual realm. In the material world, however, there was secular

government with a justified civil authority worthy of obedience. The movements also followed the traditional Lutheran insistence on giving ritual a smaller place than it enjoyed in Roman Catholicism or Eastern Orthodoxy. Hence, there were only two sacraments—baptism and Holy Communion—retained as symbols to strengthen faith, for Lutherans felt that they had no inherent redemptive value.

In the late 1980s, the five or six main movements had well over 100,000 members, and each movement was vigorous enough to have a central organization, newspaper, or magazine. Each held a summer convention that could attract tens of thousands of the devout. Though the movements might on occasion disagree with positions adopted by the Lutheran Church as a whole, they could protest them, or could actually prevent their adoption at the church's democratically arranged meetings and forums.

The earliest of the movements was *The Awakened*. Its most important leader, Paavo Ruotsalainen (1777–1852), was an uneducated peasant who attracted a substantial following by appealing to the poor and the oppressed through his emphases on Divine greatness and on human wretchedness and helplessness. Man, he proclaimed, was inept and could never succeed; only God redeemed and healed. Man's duties, then, were to abandon his own works and to trust only in God. Followers of *The Awakened* held religious services at their homes to supplement those of the church. Unlike the Laestadians, who belonged to a movement founded somewhat later, followers of *The Awakened* were tolerant; they did not call attention to themselves as believers to whom grace belongs, in contrast to the rest of the world, which was unrepentant. In the late 1980s, the movement was strongest in the eastern Savo region and in Ostrobothnia, and it attracted between 30,000 and 40,000 to its summer meetings.

The Laestadian Movement, named after its founder, Lars Levi Laestadius (1800–61), a Swedish preacher in Lapland, was perhaps the strongest of all the revivalist movements; even in the 1980s, it could attract 100,000 of the faithful to its mass meetings. One reason for its large gatherings was the importance the movement attached to the visible congregation and to the absolution given to its members after confession. The movement's services were often marked by ecstatic outbursts. Laestadians were somewhat intolerant, as they stressed the certainty of salvation for Christians and the probability of damnation for nonbelievers. This adamancy caused occasional rifts within the movement. Laestadians continued to have their stronghold in northern Finland, where the movement had originated.



The Evangelical Movement was an offshoot of The Awakened. Its founder, Fredrik Gabriel Hedberg (1811-93), believed that an obsession with wretchedness detracted from the assurance of salvation that a Christian has through his faith in Christ's righteousness. The movement stressed infant baptism, as its adherents believed the whole of salvation was given through this sacrament. It also was noted for its missionary work abroad.

The smallest of the old revivalist groups was that of the Supplicationists, founded by Henrik Renqvist (1789-1866), an early advocate of the temperance movement. Supplicationists believed in frequent and fervent prayer and in meetings at which all remained on their knees. Supplicationists were active mostly in southwestern Finland. Quite conservative in their outlook, they were not especially successful in attracting young converts.

Revivalism has also seen the formation of newer groups. One of these was the Fifth Revival, dating from shortly before World War II. It stressed missionary work and evangelism. In the 1970s Charismatics also began to be active within the Lutheran Church of Finland.

### ***Organization and Duties of the Lutheran Church***

The Lutheran Church was divided into eight dioceses, each headed by a bishop. An exception was the diocese of Turku, which was headed by an archbishop. Although he had no legal power over the other bishops, the archbishop was regarded as the first among equals and was the country's most prominent clergyman. He presided over important church meetings and was frequently the church's spokesman. One of the dioceses, that of Borgå, did not have a primarily territorial basis, but ministered to the Swedish-speaking members of the church throughout the country. For administrative purposes, each diocese had a chapter, consisting of the bishop, three other clergymen, and a jurist. The chapter also functioned as a court to resolve disputes and to answer appeals against church decisions. Appeals against chapter decisions were handled by higher state courts. The highest subdivision of the diocese was the deanery, an administrative entity no longer of much importance. The seventy-odd deaneries were divided into parishes. In the late 1980s, there were just under 600 of these core units of the church. The 600 parishes varied widely in both the number of their parishioners and their geographic extent. In the sparsely populated north, for example, a parish could have more square kilometers within its jurisdiction than it did parishioners, while there were nearly three dozen parishes in Helsinki alone.

The Lutheran Church of Finland employed about 18,000 persons in 1987, some 10,000 of whom worked full-time. There were about 1,400 ministers, enough to meet the church's needs. They received their training at two institutions, one in Helsinki and the other in Turku. The first women priests were ordained in 1988. Until that time, women had been limited to the secondary role of lector, with duties that encompassed teaching, pastoral work, and administering Holy Communion.

The highest body of the church was the Synod, which met twice a year, once in the spring and once in the fall. The 108-member body consisted of the 8 bishops, 1 military bishop, 2 high judges, 1 representative of the government, and 96 elected delegates—64 of whom were laymen and 32 of whom were clergymen. The number of delegates that the individual diocese sent to the Synod depended on its population, but each diocese sent at least six delegates, two of whom were clergymen. Chaired by the archbishop, the Synod had a number of responsibilities, including deliberating on legislative questions, directing disbursement of the resources of the central church fund, supervising Bible translations, discussing the nature of relations with other religious organizations, and resolving fundamental and highly divisive issues.

Two other central bodies were the Ecclesiastical Board and the Bishops' Conference. The former was a permanent body, chaired by the archbishop, that oversaw the church's administration and finances and prepared matters for discussion at the Synod. The latter, consisting of the bishops and eight other church officials, met twice a year to discuss, in an unbinding way, issues of concern to the dioceses.

The church placed great emphasis on congregational life. Despite the apparent episcopal nature of the church organization, parishes were quite independent. They made most of their decisions on their own and had only to observe the constraints of ecclesiastical law. By means of democratically elected councils and boards, they chose their own pastors, church musicians, and administrative personnel and, to some degree, set their own salaries. Every adult member of a parish had the right to vote, and he or she had the possibility of winning a place on the council or board, which meant that the laity had much say about how its parish was run.

Parishes were financially independent, for it was to them that the national government paid the church tax, equal to about 1 percent of the taxable income of parishioners. Corporations within a parish were also obliged to pay the church tax, and, altogether, this tax represented about 75 percent of the Lutheran Church's income. Some of the religious and social services that a parish

managed yielded income, too, as did the 1 percent of the nation's forests that were in church possession. An elected administrative board and an executive council managed parish finances, although in urban areas parishes sometimes banded together to handle such practical details. Parishes were obliged, however, to pay about 6 percent of their income to a fund, used by the church as a whole, to help poorer parishes and to pay for other activities like missionary work.

The historical role of the Lutheran Church as a state church was reflected in the services managed by the parish that in other countries were the concern of secular government. For instance, it maintained the official population records for all of its members. Those of nonmembers were kept by local government. Parishes managed graveyards. In an area where there was no alternative cemetery, nonmembers or nonbelievers could be buried in one belonging to the church. Weddings performed by the parish had the same value as civil services, provided both the bride and groom were Christians.

Parishes did not limit themselves to regular religious services and to other activities such as Sunday schools or study groups. They often organized a specifically Finnish religious meeting, the *seurat*, which had its origins in the revivalist tradition and was a mixture of hymns and addresses by both clergy and laymen.

Parish personnel also offered services of a secular nature that supplemented social services provided by the state. Church law required that each parish have a deacon or deaconess who had many of the responsibilities of a state social worker. Often trained as nurses, deaconesses ministered to the sick, aged, and handicapped and coordinated their work with state agencies. Since World War II, the church has been active in providing personnel and facilities to youth programs, such as summer camps.

### **Orthodox Church of Finland**

The other state church was the Orthodox Church of Finland. Although it had a much smaller membership than the Lutheran Church of Finland, only 56,000 in 1987, it enjoyed the same legal status and rights as the larger church. The state paid it the church tax it had collected from its parishioners, and the Orthodox Church kept parishioners' official demographic records. Although the state had some control over its activity, the Orthodox Church was largely independent. It also was a distinctly Finnish church, for although its rites and practices were Slavic, in accordance with Orthodox doctrine, it had been using the Finnish language in its services since the second half of the nineteenth century. After Finland became independent, the Orthodox Church of Finland broke with the



*View of Helsinki's historic center: foreground, Uspenski Cathedral, the largest Orthodox church in Western Europe; upper left, the Esplanade, the capital's spacious promenade  
Courtesy Embassy of Finland, Washington*

Russian Orthodox Church, and after 1923 it belonged to the Ecumenical Patriarchate of Constantinople, the leader of which was its nominal head.

Before World War II, most members of the Orthodox Church lived in the province of Karelia. After much of the province was annexed by the Soviet Union in 1944, most Finns living in the annexed areas fled westward. Some 70 percent of the members of the Orthodox Church were therefore dispersed throughout Finland, and many settled in regions where before there had been only Lutherans. By the 1980s, there were twenty-five parishes in the country. In 1980 a third diocese was created in northern Finland to minister better to Orthodox Christians living in that region and to make the Orthodox Church eligible to become fully autonomous, or in Orthodox terminology, autocephalous.

The highest official of the Finnish church was the archbishop of the diocese of Karelia, with its seat at Kuopio. Two other bishops, or metropolitans, headed the other two dioceses, those of Helsinki and Oulu. The church's highest governing body was the Church Assembly, which met every third year unless more frequent meetings were necessary. It consisted of thirty-four voting members,

seventeen of whom were laymen. Routine administration was managed by the Church Council. The Bishops' Synod approved the doctrinal decisions of the assembly.

Local administrative practices were democratized and mirrored the power and influence of the laity seen in the Lutheran Church.

### **Smaller Registered Churches**

In the 1980s, there were more than two dozen other registered religions in Finland, but none of them enjoyed the legal status of the two state churches. The largest single group in the second half of the 1980s consisted of several Pentecostal churches that drew on the revivalist strains always present in the Finnish religious tradition. Pentecostal churches had a total congregation of about 40,000, distributed in a number of organizations. The Church of Jesus Christ of Latter Day Saints (Mormons) had some success and had about 4,000 followers. Roman Catholics numbered about 4,000, distributed in 5 parishes presided over by a bishop. Most of the score of priests were foreigners, and Roman Catholic Finns who desired ordination had to study abroad. So successful had the Protestant Reformation been in extirpating Roman Catholicism from Finland that for more than three centuries no Finn had become a Roman Catholic priest until one was ordained in Paris in 1903. The Jewish community of 1,200 persons was located in southern urban areas. It was so small that it was having trouble sustaining itself and had to seek its rabbi abroad. Finland's tiny Muslim community dated from the nineteenth century and numbered about 900. As in other Western countries, eastern religions and sects had received some attention in Finland in recent decades. The most successful of them was the Baha'i Society of Finland with just over 300 followers.

### **Education**

Finland has had a strong tradition of literacy since the Protestant Reformation. The Lutheran Church aimed at widespread literacy to enable the common man to read the Bible. In the next century, proof of literacy became a requirement for the right to marry. By the second half of the nineteenth century, legislation was in place for a general system of elementary education, although the tsarist regime did not allow its realization. After independence, a Comprehensive Education Act was passed in 1921 that met the state's constitutional requirement to provide "universal compulsory education," including elementary education, at no cost. Legislation also stipulated that Finnish citizens had a duty to be educated.

In the postwar period, the basic goal of Finnish education

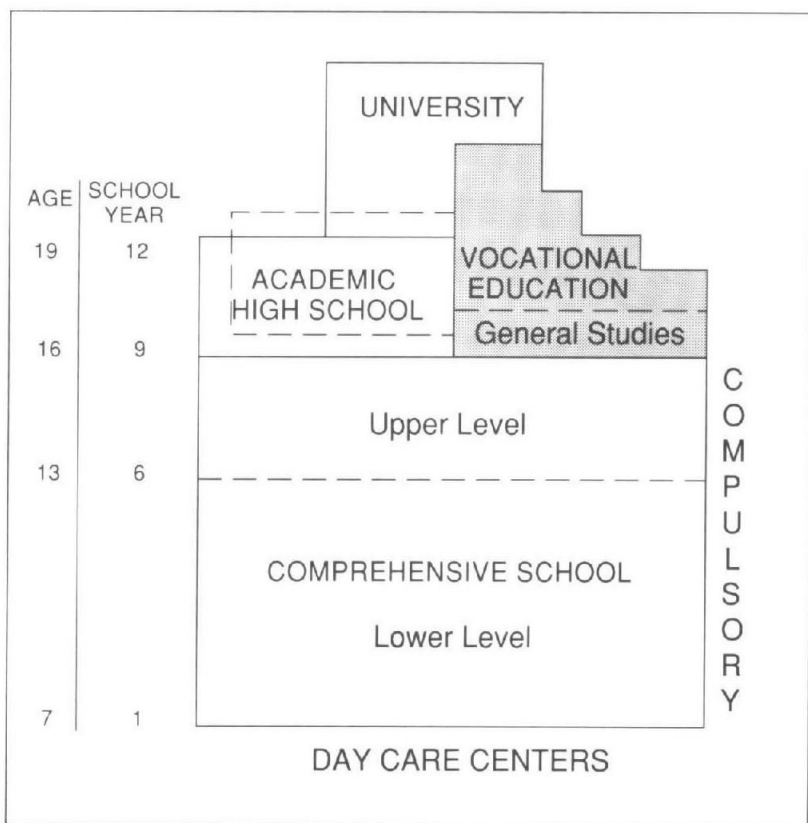
authorities has been to create a system that would provide equal educational opportunities for everyone, would guarantee the country a populace able to meet the technological challenges of the international marketplace, would encourage democratic values, and would allow each person the fullest realization of his or her potential. Work to realize this goal has led since the 1960s to profound changes in the organization of the country's school system. The old elementary school system that determined at an early age whether pupils were to follow a general or an academic course of studies was replaced by a uniform comprehensive system that postponed this decision until the mid-teens and that, even then, did not bar anyone from higher training at a later time. Secondary education was broadened and reformed to allow a greater range of choices and opportunities. University education was expanded and distributed more equally across the country, its control was democratized, and access to it was widened.

### **Primary and Secondary Education**

The School System Act, passed in 1968, abolished the two-track elementary school system and replaced it with a single comprehensive school with a nine-year course of studies. The new school was uniform throughout the country and was compulsory for all children between the ages of seven and sixteen. Children in Finland began school at a later age than those in many other countries because of the distances some of them had to travel in sparsely settled areas. Private schools also were gradually incorporated into the system, which was fully in place by the late 1970s.

The school program was broken into two stages: a lower level for the first six grades and an upper level for grades seven through nine (see fig. 13). In some areas there was a voluntary tenth year. The school year began in the second half of August and ended in early June, with a two-week break at Christmas and a one-week break both in the winter and at Easter. The pre-school system was directed by the Ministry of Social Affairs and Health. In the mid-1980s, this system was able to accommodate only one-third of the children of the relevant age-group.

Instruction at comprehensive schools was free, as were books, a daily hot meal, transportation, and even lodging for those students who lived too far from a school to manage a daily commute. Efforts were made to ensure that the quality of instruction did not vary and that children in Lapland were as well instructed as those in Helsinki. In bilingual communities, children had the right to instruction in their own language. Children also had the right to classes in their own religion, unless there were too few students



*Figure 13. Education System, 1980s*

of a particular religion to make this practicable, or they could be excused from religious instruction. If at least five students had no religion, an alternative nonreligious course was obligatory. Schools were not divided according to sex.

After graduation from a comprehensive school, students continued their education at either vocational schools or the more demanding vocational institutes, or at the academically oriented secondary schools. During the 1980s, a slight majority of students chose vocational training to prepare them for one or more of several hundred commercial and technical occupations. Some 60 percent of these students attended two-year to three-year courses at vocational schools, while the remainder enrolled in four-year to five-year courses at vocational institutes that led to careers in highly skilled fields or to management and planning positions. Students at the academic high schools had to pass an examination, after

three years of study, before they could attend a university. Fewer than half passed this examination, and only about one-fourth of those successful managed to secure places at universities. Although the academic high school was the most common route to a university in the 1980s, an increasing number of places there were being held for graduates of vocational institutes.

The schools' curricula were set by law, and their content was determined at the national level by the Ministry of Education, the National Board of General Education, and the National Board of Vocational Education. Local authorities, however, had some say about how they would be taught. Language instruction accounted for one-third of teaching time in comprehensive schools and for somewhat more in secondary schools. In the third grade, children began taking a second language, usually Finnish for Swedish speakers and English for the others. Sciences and mathematics accounted for about 30 percent of teaching time at the comprehensive level and for somewhat less at academic schools at the secondary level, while social and humanistic courses accounted for 12 percent in the former and 18 percent in the latter. Comprehensive schools spent one-fourth of their time on art, physical education, and related courses, while secondary schools accorded them a little less than one-fifth of their time. The courses vocational schools offered varied greatly because of the wide variety of material taught. After the first year of general courses, most instruction was connected directly with the chosen specialty.

Since the late 1970s, all teachers in the comprehensive and secondary schools have been obliged to have a university degree. Two art academies and eight universities provided teacher education. Vocational teachers, given the wide variety of courses they taught, could sometimes substitute occupational experience for university training. Teachers of the first six years of comprehensive school functioned as class teachers rather than as subject specialists and were required to have a Master of Education degree, while their colleagues in the upper levels needed a master's degree in the subject they had chosen to teach. Although selection criteria for places in teacher training were stringent (only 10 percent of applicants were accepted), Finland had enough teachers to allow classes in the comprehensive system to average about thirty pupils; classes in the secondary schools averaged about twenty pupils. In sparsely populated areas, however, it was sometimes necessary to form classes with pupils of different ages and grade levels.

Special education generally was accomplished within regular schools. This practice was in consonance with the overall policy of avoiding "tracking," which was seen to limit a pupil's range



of educational opportunities by placing him or her at a particular level of instruction. An attempt was made to keep all members of a class together and to address special needs through individual counseling and tutoring. This principle reflected the overriding goal of having an open and flexible school system that matched individual qualities and aspirations.

### **Higher Education**

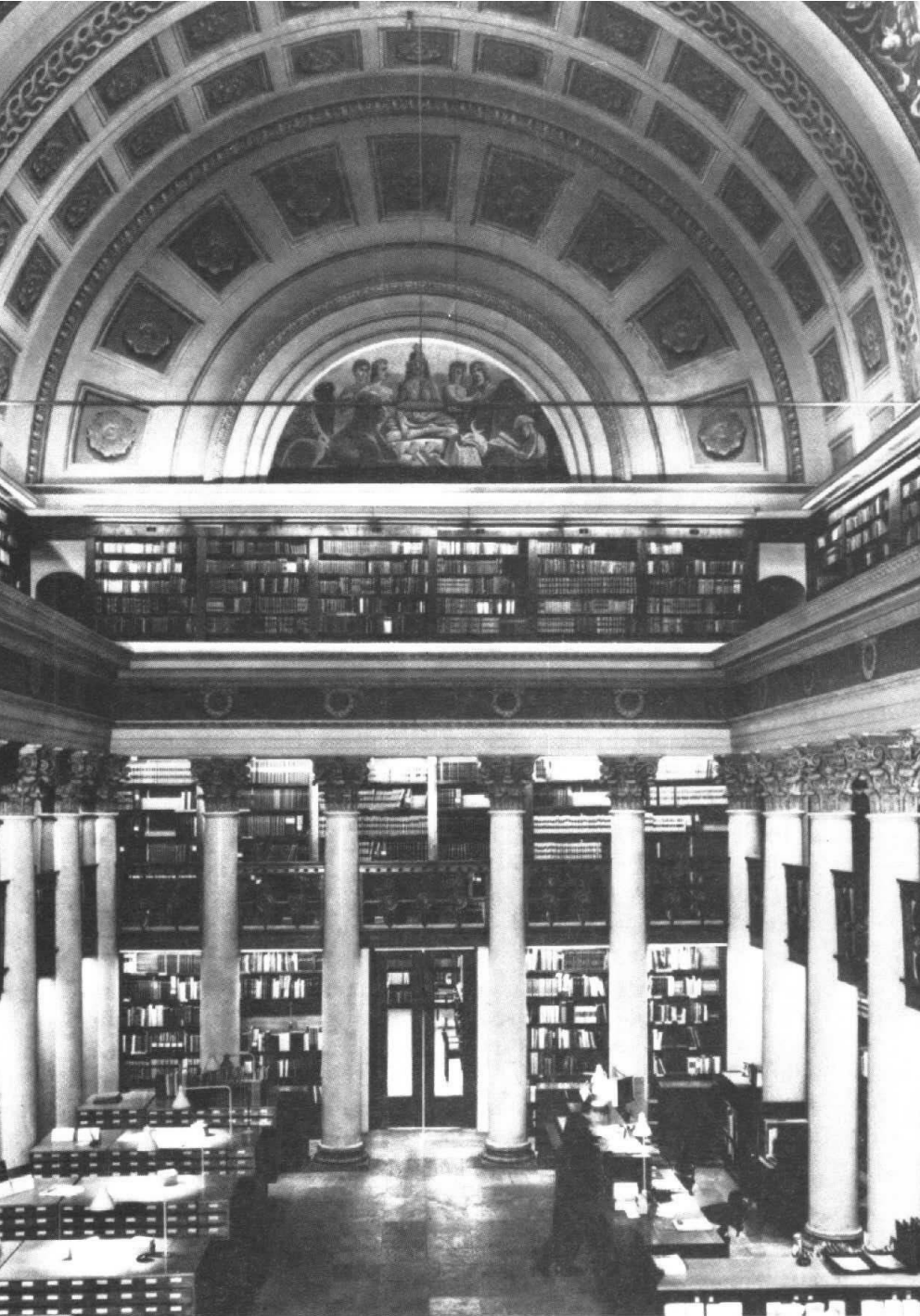
In the late 1980s, Finland's system of higher education consisted of ten universities (each with at least several different faculties), seven one-discipline institutions with such specialties as technology or business administration, and three art academies. The largest, the University of Helsinki, was founded in 1640. The remainder date from the twentieth century; the newest, the University of Lapland at Rovaniemi, from 1979. During the mid-1980s, there were about 90,000 students at institutions of higher education. Competition for acceptance for university-level study was intense, and fewer than one out of four applicants obtained a place. There were no private universities in Finland.

By the late 1980s, institutions of higher learning were granting three degrees: a master's degree that required from four to six years of study; a graduate degree, the licentiate, requiring another two years of study; and the doctorate, awarded usually after four years or so of graduate study. A candidate did not have to obtain the licentiate to be awarded the doctorate.

Like the country's primary and secondary schools, Finnish universities were free. To help with living expenses, however, students who were enrolled in secondary schools and at universities were entitled to financial aid by the Study Allowances Act of 1972. By the 1980s, more than half the student body at these institutions received aid in the form of allowances or low-interest loans.

Institutions of higher learning had about 7,000 instructors altogether in the 1980s. Academic freedom was ensured through a tenure system that protected most of this number from dismissal. The institutions themselves were under the overall direction of the Ministry of Education, but they enjoyed considerable internal autonomy. The autonomy of the University of Helsinki was even guaranteed by the Constitution of 1919. The trend toward greater internal democracy had also touched Finnish universities, and by the late 1980s professors were sharing much of their former power with other faculty members, university staff, and students.

An area of future growth in Finnish education was expected to be that of supplementary education at the university level. No degrees were to be granted, but much greater access to



*Main reading room of library, University of Helsinki  
Courtesy Embassy of Finland, Washington*

university resources was to be offered to those wishing to deepen their knowledge of a particular field either for professional reasons or for personal pleasure. It was estimated that, by the early 1990s, one-tenth of university teaching would occur in an open-university-like forum.

### **Adult Education**

Finland had a long tradition of adult education, and by the 1980s nearly one million Finns were receiving some kind of instruction each year. Forty percent of them did so for professional reasons. Adult education appeared in a number of forms, such as secondary evening schools, civic and workers' institutes, study centers, vocational course centers, and folk high schools. Study centers allowed groups to follow study plans of their own making, with educational and financial assistance provided by the state. Folk high schools were a distinctly Nordic institution. Originating in Denmark in the nineteenth century, folk high schools became common throughout the region. Adults of all ages could stay at them for several weeks and take courses in subjects that ranged from handicrafts to economics.

### **Public Welfare**

In the late 1980s, Finland had one of the world's most advanced welfare systems, one that guaranteed decent living conditions for all Finns. Created almost entirely during the first three decades after World War II, the system was an outgrowth of the traditional Nordic belief that the state was not inherently hostile to the well-being of its citizens, but could intervene benevolently on their behalf. According to some social historians, the basis of this belief was a relatively benign history that had allowed the gradual emergence of a free and independent peasantry in the Nordic countries and had curtailed the dominance of the nobility and the subsequent formation of a powerful right wing. Finland's history has been harsher than the histories of the other Nordic countries, but not harsh enough to bar the country from following their path of social development.

### **Growth of the Social Welfare System**

In the last years of the nineteenth century, Finnish social policy had as its goal a lessening of class friction. The few existing pieces of social legislation addressed the needs of specific groups rather than of society as a whole. After the Civil War, little was accomplished in welfare legislation. A woefully insufficient national pension plan was set up in 1937, as were measures to aid needy mothers.

It was only after World War II that Finnish social policy acquired the characteristics that in the next decades made it similar to other Nordic systems of social welfare.

According to Finnish sociologist Erik Allardt, the hallmark of the Nordic welfare system was its comprehensiveness. Unlike the welfare systems of the United States or most West European countries, those of the Nordic countries covered the entire population, and they were not limited to those groups unable to care for themselves. Examples of this universality of coverage were national flat-rate pensions available to all once they reached a certain age, regardless of what they had paid into the plan, and national health plans based on medical needs rather than on financial means. In addition, the citizens of the Nordic countries had a legal right to the benefits provided by their welfare systems, the provisions of which were designed to meet what was perceived as a collective responsibility to ensure everyone a decent standard of living. The Nordic system also was distinguished by the many aspects of people's lives it touched upon.

The Finnish welfare system differed from those of other Nordic countries mainly in that its benefits were lower in some categories, such as sickness and unemployment payments; otherwise, the Finnish system fit into the Nordic conception of social welfare. Finnish social expenditures constituted about 7 percent of the country's gross domestic product (GDP—see Glossary) in 1950, roughly equal to what Sweden, Denmark, and Norway were spending. By the mid-1980s, Finland's social expenditures had risen to about 24 percent of GDP, compared with the other countries' respective 35, 30, and 22 percent (see table 9, Appendix A). Less than 10 percent of these expenditures was paid for by Finnish wage earners; the remainder came roughly equally from the state and from employers. Until the second half of the 1970s, Finnish employers had paid a higher share of social outlays than had their counterparts in the other Nordic countries. In response to the slowdown of the world economy after 1973, there was some shifting of social burdens to the state, which made Finnish companies more price competitive abroad.

Finland's welfare system also differed from those of its neighbors in that it was put in place slightly later than theirs, and it was only fully realized in the decade after the formation of the Red-Earth government in 1966 (see Finland in the Era of Consensus, 1966–81, ch. 1). Just after World War II, the Finns directed their attention to maternal and child care. In 1957 the government established an improved national pension plan and supplemented it in the early 1960s with private pension funds. Unemployment

aid was organized in 1959 and in 1960, and it was reformed in 1972. Legislation of the 1950s and the 1960s also mandated the construction of a network of hospitals, the education of more medical personnel, and, from 1963 to the early 1970s, the establishment of a system of health insurance. The housing allowance system expanded during the 1960s to reach ever-widening circles of the population. Health-care officials turned away from hospital care in the 1970s, and they began to emphasize the use of smaller local clinics. By the 1980s, the Finnish welfare system was up to Nordic standards and had the support of most Finns. All major political parties were committed to maintaining it, and its role in Finnish society seemed secure for the coming decades.

### **Organization of the Welfare System**

In the late 1980s, the Ministry of Social Affairs and Health directed the welfare system through five departments: social insurance, social welfare, health care, temperance and alcohol policy, and labor. According to Finland's administrative tradition, it is the task of a ministry and its departments to determine policy, which is then administered by central boards. In the case of social policy, there were three central boards for social welfare, health, and labor protection. An exception to this administrative division was the Social Security Institute, which supervised the national pension plan and health insurance for the Eduskunta and the Council of State.

The actual supplier of social care was local government—the municipality—supervised by authorities at the provincial level who had to approve the administrative plans of municipalities before these local governments could receive funds from the state. In the early 1980s, funds from the state made up about 30 percent of the monies spent on all social services and pensions, while employers supplied about 40 percent; local governments, 15 percent; and the recipients of services, the remainder.

### **Income Security Programs Classified as Social Insurance**

Finland, like the other Nordic countries, divided most of its social programs into those that guaranteed income security and those that provided social and health services. Income security programs came in two categories: social insurance, which provided income despite old age, illness, pregnancy, unemployment, or work-related injuries; and income security classified as welfare, which consisted of income transfers to aid families through measures such as child payments, maternity grants, payments to war victims and their survivors, and financial aid to those afflicted by disability or pressing

needs. Programs of the first category, income security guarantees, took some 80 percent of the funds expended for social welfare (see table 10, Appendix A).

### ***National Pension Plan***

Finland's first national old-age pension plan dates from 1937, but it was so poorly funded that a new National Pensions Act was put into effect in 1957. In the late 1980s, this law, somewhat reformed, was still the basis of Finland's National Pension Plan, which was open to all residents over the age of sixteen, even to those who had never paid into it. Even those foreigners not from the Nordic countries were entitled to this pension if they had resided in Finland for at least five years. Those who left for residence in a country outside Nordic Europe, even those who were Finnish citizens, could receive the pension for only one year. The flat-rate national pension could be paid as an old-age pension, once a person reached the age of sixty-five; as an invalidity pension (either full or partial) to those between the ages of sixteen and sixty-four who were no longer able to work; or, in some cases, to the long-term unemployed who were in their late fifties or early sixties. In addition to these classes of beneficiaries, survivors of those eligible for national pensions who were not themselves eligible for the pensions could receive pensions under the terms of the Survivor's Pension Plan. Also tied to the National Pension Plan were payments for handicapped children living at home and for some combat veterans of World War II.

Payments of the national pension were uniform for everyone; in the mid-1980s, they amounted to Fmk334 (for value of the Finnish mark—see Glossary) a month. To this amount were added the assistance payment, which varied according to a pensioner's marital status, the cost of living in his or her locality, and other pensions that he or she received. Other supplementary payments could be made for dependent children, for degree of disability, and for housing costs, as well as for veterans of the Civil War and of World War II. In the mid-1980s, the supplemental payment to a single pensioner could range from Fmk1,362 to Fmk1,436 a month. The supplement for each child amounted to Fmk181, and housing supplements varied according to housing costs but could amount to as much as approximately Fmk1,000. Helplessness supplements could be worth up to about Fmk400, depending on the age and the physical state of the pensioner. National pensions were indexed, and they increased in value each year. Since reforms of the early 1980s, national pensions were not taxable if they were the sole source of income. Pensions were no longer affected by a spouse's earnings

or pension income, and the national pension could only be reduced by income from other pensions. The National Pension Plan was funded by the beneficiary's own contributions, about 2 percent of his or her locally taxable income, and by employer contributions of 4 to 5 percent of the insured person's wages.

### ***Employee Pension Plans***

The Employees' Pensions Act was passed in 1961 to supplement the National Pension Plan, which, while adequate for Finns living in the countryside—a majority of the population until the 1960s—did not provide enough benefits for city dwellers. During the next decade, other compulsory wage-related pension plans were enacted into law for temporary employees, for national and local government employees, for those working for a state church, and for the self-employed. At the end of the decade, a supplementary plan was created for farmers as well. Seamen had had an income-based plan since 1956, and, as of 1986, those active in free-lance professions such as acting and writing also obtained coverage. These employment pension plans were completely funded by the employers, private or public, who paid contributions, equal on the average to about 10 percent of a worker's earnings, into funds managed by seven large insurance companies or who set up funds on their own. Self-employed persons had to choose a fund. The Central Pension Security Institute was responsible for keeping records about employment and benefits.

The normal age of pensionable retirement was sixty-five, and the pension paid was based on the average earnings one had received in the last four years of work ending two years before retirement. One could receive up to 60 percent of private-sector earnings and up to 66 percent of public-sector earnings. The average wage-related pension in the mid-1980s was about Fmk1,000 per month. Older employees, at work before these pension plans became effective, were guaranteed a minimum pension of at least 29 percent if they retired before 1975, and 37 percent if they retired after this date. Like the national pension, wage-related pensions were indexed, and they increased each year. In addition, there were provisions relating to disability, early or late retirement, and survivors' benefits similar to those in effect for the National Pension Plan.

### ***Sickness Insurance***

The Sickness Insurance Act of 1963 introduced health insurance to Finland in two stages. First, beginning in 1964 it provided payments when wages were lost because of illness or maternity leave and payments for the cost of treatment and medicine. Three years

later, it began paying doctors' bills as well. Until the act went into effect, only a small minority of the population, generally those employed by large firms, had medical insurance.

All persons resident in Finland for more than a short time were eligible for benefits. Foreigners had to register with the local health authorities to receive payments. In the 1980s, the daily payment made to make up for losses of income due to illness averaged about 80 percent of a typical wage and could last for as many as 300 work-days. Highly paid individuals received less. Hospital care in public hospitals was generally free, and other compensation amounted to 60 percent of doctors' fees, 75 percent of laboratory expenses, and 50 percent of medicine costs. In the mid-1980s, dental care was free for anyone born after 1961, but for others it was paid only if dental problems had to be treated to cure a disease. Maternity leave payments amounted to about 80 percent of income for about one year, and could begin five weeks before the estimated date of the birth. Fathers could take some of this time, with a corresponding cut in the days allowed to the mother. Sickness insurance was funded by the recipients themselves through their payment of about 2 percent of their locally taxable income, by employers who paid a contribution of about 1 percent of the employee's wages, and by the state.

However generous these benefits appeared in an international context, medical fees had increased in the 1970s and the 1980s, and government compensation rates had not kept pace. Rates increased by 25 percent in 1986, but not enough according to some critics. Those who pressed for government relief believed it necessary even though public medical care, which constituted the bulk of medical care in Finland, was already highly subsidized and hence rather cheap compared with many other countries.

### *Unemployment Insurance*

The Unemployment Security Act of 1984 reformed the unemployment assistance system that had been gradually worked out to deal with the persistent problem of unemployment in Finland (see Employment, ch. 3). The act arranged for coverage of all unemployed between the ages of seventeen and sixty-four, resident in Finland, whose income came from wages earned doing work for another person or legal entity. A person had to be in need to receive payments under the terms of the act and could be disqualified because of a spouse's earnings. The self-employed, full-time students, and people receiving pensions or maternity allowances were not eligible, nor were those who were unemployed because of illness, injury, or handicap, or who had quit work voluntarily,



who had lost work because of labor disputes, or who had refused to accept employment.

In the mid-1980s, those eligible for unemployment benefits received them in two ways. A basic daily allowance of Fmk70 went to any person looking for employment. This allowance was means-tested, and the income of a spouse could disqualify a potential beneficiary. The allowance lasted as long as the recipient was unemployed. Those unemployed who were members of an unemployment fund (80 percent of Finns were) and who had worked for at least twenty-six weeks in the preceding two years were eligible for more substantial benefits amounting to the daily basic allowance plus 45 percent of the difference between their daily wage and the basic allowance. After 100 days the payment was reduced by 20 percent. Beneficiaries of the income-related allowance could receive it for 500 days in a 4-year period. Workers in their late fifties and older who had been unable to find work could be granted an unemployment pension equal to a disability pension until they reached the age when they would be eligible for an old-age pension. Unemployment benefits were administered by the Social Security Institute. The basic allowance was completely financed by the state. Employers and the state funded equal shares of 95 percent of the income-related payments and the beneficiary was responsible for the remaining 5 percent.

### ***Workmen's Compensation***

An employee who suffered work-related injuries was financially protected through payments that covered medical and rehabilitation expenses and fully matched his or her wages. If injuries resulted in permanent disability, the worker could receive payments amounting to 85 percent of his or her wages for total disability. Survivors were eligible for pensions, as well as a sizable funeral grant. This compulsory program was entirely funded by the employer.

### **Income Security Classified as Welfare**

In addition to the above benefits that were classified as income security in the form of social insurance, there were income security programs classified as welfare. One of the differences between the two classes of social programs was that the welfare measures were financed mostly through taxes, whereas social insurance programs were paid for by employers and employees. This second category of income security also consisted of payments to those eligible. The most important and expensive class of these benefits involved payments to families with children. Other programs assisted those who had suffered war injuries and their dependents, provided financial

aid to those called up for military service and to their families, made payments to the handicapped that helped them earn their living, and provided living allowances that were the last resort of those unable to earn their way.

### ***Family Aid***

Financial aid to families with children came in the form of child allowances, child care and maintenance allowances, and maternity benefits. Child allowances dated from the 1930s, and they were one of the oldest parts of the welfare system. The law in force in the late 1980s was the Child Allowance Act of 1948, which arranged for payments to parents for all children under the age of sixteen and resident in Finland, regardless of the wealth or nationality of the parents. By the mid-1980s, payments for the first child were a little more than Fmk2,000 a year, with payments increasing to Fmk4,800 for the fifth and additional children. Another payment of about Fmk1,200 was made for children under the age of three. Child-care allowances had been paid since the 1970s to those parents who stayed at home to care for small children or who had engaged someone else to do so. A child maintenance allowance of as much as approximately Fmk400 a month was paid when a court-ordered maintenance payment for a child of divorced parents was not being paid. A maternity benefit, based on legislation of the 1930s, was paid for each pregnancy. It came either as a grant of about Fmk500 or as a much more valuable set of materials needed to tend a child. It was withheld if the mother did not visit a clinic by the fifth month of pregnancy.

### ***Welfare Services***

In addition to the above measures that involved financial payments to achieve social ends, the system of social care provided welfare services. By the mid-1980s, some 90,000 state and local employees were using about 5 percent of Finland's gross national product (GNP—see Glossary) to deliver a wide variety of social services under the overall direction of the Ministry of Social Affairs and Health. The expansion of the welfare system in the 1960s and the 1970s had caused the number of social workers roughly to triple between 1970 and 1985. Since 1981 workers entering the field had been required to have university training.

National government subsidies of from 30 to 60 percent of costs had the goal of making social services uniform throughout the country, so that residents of even the most isolated community had the same range of services as were offered in Helsinki, though this aim was not always met. Social services were usually free, and they

were available to anyone who wanted them, irrespective of the recipient's income. Information furnished to social workers was confidential and could not be released, even to another government agency. The ultimate aim of welfare services was to increase the quality of life and the independence of the client so that welfare services were no longer needed.

The Social Welfare Act of 1982 replaced some older laws; it charged local government with providing such social services as general and family counseling and with making housing available to those needing it, most notably the aged and the infirm, troubled youth, and alcoholics. The law detailed local responsibilities for assigning specialists to assist persons living at home but no longer fully able to take care of themselves and for maintaining institutions for persons, be they aged, mentally handicapped, or addicted, whose afflictions were so serious that they could no longer live at home.

### *Child-Care Services*

A law with far-reaching effects was the 1973 Child Day Care Act, which stipulated that all local governments were to provide good child day care for all families that desired it. The care for children up to seven years of age could be given either in day-care centers, sometimes private but generally run by local governments, or by accredited baby-sitters, either at the child's home or outside it. Although the number of places for day care had more than doubled to 100,000 by the mid-1980s, it would have had to double again to meet total needs. A 1985 law set the goal of being able to allow, by 1990, all parents of children up to the age of three the choice between home-care payments or a place for their child in a day-care center. One parent could also take unpaid employment leave until the child's third birthday. The Child Welfare Act of 1983 enjoined local governments to look after children, and it empowered them to take a variety of measures if a child was being seriously neglected or abused. In the mid-1980s, about 2 percent of Finnish children were affected by this law. Another 1983 law made the corporal punishment of children illegal, as it was in the other Nordic countries.

### *Services for the Disabled*

The Welfare of the Disabled Act of 1946 set the responsibilities for treatment of the physically handicapped. The institutions that offered housing, occupational training, sheltered working environments, and physical rehabilitation were overseen by the National Board of Social Welfare, while about a score of schools for



*View of Turku (Åbo), Finland's third largest city, with the Aura River in the foreground; in the background, Turku Cathedral  
Courtesy Embassy of Finland, Washington*

handicapped children unable to attend ordinary schools was supervised by the National Board of Schools. Special equipment, like prostheses, was supplied at no cost, as were such services as the adaptation of living areas. In the late 1980s, there were some 30,000 mentally handicapped Finns, 10,000 of whom received welfare ranging from living accommodations in an institution to day-center care or jobs in sheltered workshops. There were not enough places to accommodate all the mentally disabled properly, so some were placed in private homes or in retirement homes.

### *Services for Substance Abusers*

The Welfare for Intoxicant Abusers Act of 1985 dealt mainly with alcoholism, as it was the only serious problem of substance abuse in Finland in the late 1980s. Finnish society had traditionally not seen alcohol as a part of daily life, but rather as something consumed on special occasions and then to the point of intoxication. Medical evidence of this harmful habit was that the Finnish incidence of death by acute alcohol poisoning was seven times that of Sweden and twenty times that of Denmark. Because of its troubled relationship with alcohol, the country enforced prohibition from 1919 to 1931. A later measure against alcohol consumption was a 1976 law that banned liquor advertisements in most publications. Another measure increased the cost of alcohol by taxing it heavily, so much so that by the mid-1980s liquor taxes were an important source of state revenues.

In the 1980s, there were still many abstainers in Finland who had moral objections to alcohol use, in contrast to the small minority of drinkers who accounted for more than half of total national consumption. In the late 1960s, a relaxation of the rules for the purchase of alcohol had as its goal a lessening of drink's glamorous appeal because it was, in a sense, forbidden. This policy may have backfired when sales of beer in grocery stores and the availability of hard liquor at more restaurants caused alcohol consumption to more than double within a decade. Since the mid-1970s, however, analysts of Finnish alcohol use have seen consumption rates level off and drinking habits become more moderate. Although the number of abstainers had dropped sharply in the postwar period, causing some sociologists to refer to Finns who became adults in the 1950s and the 1960s as "the wet generation," alcohol was gradually coming to take a more ordinary place in everyday life.

The Ministry of Social Affairs and Health had a special department concerned with substance abuse, the Department of Temperance and Alcohol Policy, that formulated welfare plans and

directed the State Alcohol Monopoly responsible for the manufacture, importation, and sale of alcohol. Local authorities provided a variety of facilities for alcoholics—including clinics, half-way houses, and emergency housing open twenty-four hours a day that offered withdrawal treatments. When necessary, alcoholics could be confined against their will, but this practice was less common in the late 1980s than it had been previously. State welfare was supplemented by private and voluntary associations, such as Alcoholics Anonymous.

## **Health System**

By the second half of the 1980s, Finns enjoyed a standard of health fully comparable to that of other highly developed countries. If health standards did not match those of Finland's Nordic neighbors in all areas, it was because Sweden, Denmark, and Norway were the world's leaders in health care. Finland had made remarkable progress, however, and was rapidly catching up. In one major area, the prevention of infant mortality, Finland led the world in the mid-1980s: it had the world's lowest infant mortality rate.

### *Development of the Health System*

Since becoming an independent state in 1917, Finland has managed to deal with the "traditional" health problems. The most important cause of death in the nineteenth century, pulmonary tuberculosis, was brought under control by means of a network of tuberculosis hospitals built between the world wars. Smallpox and pneumonia have also ceased to be serious problems. With the aid of the vaccination law passed in 1952, the fight against communicable diseases was largely won. In 1980, for example, there were no deaths from common diseases of this type. By the mid-1980s, no cases of diphtheria had been registered in Finland for several decades, and, with the exception of a mini-epidemic of seven cases in 1983–84, poliomyelitis also had disappeared. An emphasis on hospital construction in the 1950s and 1960s brought the ratio of hospital beds per capita up to international norms, and new medical training centers more than doubled the number of physicians between 1970 and the mid-1980s (see table 11, Appendix A). The passage of the Sickness Insurance Act in 1963 and frequent expansion of its coverage meant that good medical care was available to everyone. Later legislative measures, such as the Primary Health Care Act of 1972, or the Mental Health Act of 1978, aimed at moving health care from large centers, increasing the amount of preventive treatment at smaller local facilities, and favoring out-patient care when possible. Finnish health authorities

believed, even in the late 1980s, that care of this kind could be more flexible, humane, and effective and could also check cost increases. Despite this policy innovation, however, social expenditures on health had increased ten-fold in real terms since the early 1950s.

### ***Organization of the Health System***

Health care was directed by the Ministry of Social Affairs and Health and was administered by the National Board of Health. In accordance with government practices, the ministry decided policy, and the national board determined how it would be administered. Actual delivery of care was the responsibility of local government, especially after the Primary Health Care Act of 1972, which stipulated that the basis of medical treatment should be the care offered in local health clinics. Previously, the emphasis had been on care from large regional hospitals.

The 1972 law resulted in the creation of about 200 local health centers each of which served a minimum of 10,000 persons. As municipalities varied greatly in size, small ones had to unite with others to form health centers, while about half the centers were operated by a single municipality. Centers did not necessarily consist of a single building, but encompassed all the health facilities in the health center district. With the exception of some sparsely settled regions, people were usually within twenty-five kilometers of the center charged with their care.

A basic aim of the 1972 law was to give all Finns equal access to health care, regardless of their income or where they lived. Because most services of health centers were free, subsidies from the national government were required to augment the financial resources of municipalities. The subsidies varied according to the wealth of the municipality and ranged roughly from 30 to 65 percent of costs. By the mid-1980s, about 40 percent of the money spent on health went for primary care, compared with 10 percent in 1972.

Health care centers were responsible for routine care such as health counseling, examinations, and screening for communicable diseases; they also provided school health services, home care, dental work, and child and maternal care. Most health centers had at least three physicians and additional staff at a ratio of about eleven per physician. Because of the high level of their training, nurses performed many services done by physicians in other countries. Most centers had midwives, whose high competence, combined with an extensive program of prenatal care, made possible Finland's extremely low infant mortality rate in the mid-1980s, the world's best at 6.5 deaths per 1,000 births.

Once it was established that a health problem could not be treated adequately at a center, patients were directed to hospitals, either to one of about thirty local hospitals with some degree of specialization, or to one of about twenty hospitals, five of which were university teaching hospitals, that could offer highly specialized care. In addition, there were institutions with a single concern, such as the sixty psychiatric hospitals, and others that dealt with orthopedics, epilepsy, rheumatism, or plastic surgery. Given the great drop in the incidence of tuberculosis in Finland, the country's dozen sanatoria were gradually being taken over for other purposes. Hospitals were usually operated by federations of municipalities, as their maintenance was beyond the power of most single municipalities. By the mid-1980s, the country's public hospitals had about 50,000 beds, and its 40-odd private hospitals had roughly 3,000. There were another 20,000 beds for patients at health centers, homes for the elderly, and other welfare institutions.

### ***Health Problems***

By the late 1980s, Finland's health problems were similar to those affecting other advanced countries. The most common causes of death in Finland were, first, cardiovascular diseases, followed by neoplasms (malignant and benign), accidents, poisonings, trauma from external causes (including suicides), and, lastly, diseases of the respiratory system (see table 12, Appendix A). The mortality rate from cardiovascular diseases was among the world's highest for both sexes, but it was especially high for middle-aged males. A national diet rich in fats was seen by medical specialists as a cause of the prevalence of coronary illnesses.

Despite its location on the periphery of Europe, Finland was also affected by the spread of acquired immune deficiency syndrome (AIDS), but not to a serious degree. As of late 1988, only 32 cases of AIDS had been reported, and 222 persons had been found to be infected with the human immunodeficiency virus (HIV), although health officials believed there might be as many as 500 HIV-positive cases in all of Finland. Reasons for the slight presence of this health problem were the low frequency of drug use and prostitution, an aggressive and frank public education campaign, and the trust Finns felt for the national health system, which led them to adopt practices it recommended.

The most striking of all Finnish health problems was the high average mortality rate for males once they reached adulthood, which contributed to an average longevity in the mid-1980s of only 70.1 years compared with 73.6 years for Swedish males. In the second half of the 1970s, Finnish males over the age of twenty were



one-third more likely to die by their sixty-fifth birthday than their Swedish neighbors. Cardiovascular diseases struck Finnish men twice as often as Swedish men. The three other chief causes of death were respiratory illnesses at twice the Swedish rate, lung cancer at three times the Swedish rate, and accidental or violent death at a frequency 50 percent higher than the Swedish figure. Health authorities have attributed the high mortality rates of the Finnish male to diet, excessive use of tobacco and alcohol, disruption of communities through migration, and a tradition of high-risk behavior that is particularly marked in working-class men in eastern Finland.

Mortality rates for Finnish women, with the exception of women over sixty-five, compared well with those of the other Nordic countries. A reason for this discrepancy between Finnish and other Nordic older women was the higher Finnish incidence of coronary problems, which occur later in women than in men. In the mid-1980s, Finnish women lived an average of 78.1 years, compared with 79.6 years for Swedish women. Except for coronary illnesses, of which Finnish women died 50 percent more often than their Swedish counterparts, the other causes of Finnish female mortality matched those of Sweden. In some cases, cancer and respiratory diseases for example, Finnish women had an even lower rate of incidence.

National efforts to improve living habits have included campaigns against smoking, restraints on the consumption of alcohol, and better health education in schools. One program that has been widely studied by international health officials was one implemented in the province of Pohjois-Karjala that aimed at reforming dietary habits in a region particularly hard hit by coronary illnesses. Finland was also a participant in the World Health Organization's program Health for All by the Year 2000 and was its European reporting nation.

## **Living Conditions**

By the 1980s, Finland enjoyed one of the highest living standards in the world. It ranked eighth in the world with regard to per capita GDP, just behind the Federal Republic of Germany (West Germany) and slightly ahead of Canada. When measured against other countries, it almost invariably ranked among the world's best, whether economic, social, medical, educational, or political criteria were being applied. Finns were as surprised as they were pleased by this excellence, because for much of its history Finland had been poor and backward. Evidence of this could be found



*View of Tapiola, a planned community outside of Helsinki  
Courtesy Embassy of Finland, Washington*

in the national anthem, which declared that Finland would always be poor.

However wealthy Finland had become since the 1960s, observers noted some shortcomings. In addition to the problem of relatively high mortality and the need for a more comprehensive child-care system, Finland faced serious environmental issues. Another long-standing problem was the standard of housing. Although improvements had occurred since the 1950s, thirty years later Finns were still not so well housed as their Nordic neighbors.

### **Protection of the Environment**

Although Finland had a very low population density and was famed for its many areas of nearly untouched nature, it had not been spared environmental pollution. Some of this came from neighboring countries, such as the dose of radiation it received after the accident at the Chernobyl Nuclear Power Plant in the Soviet Union in 1985. In this case, there was little damage because the radiation fell too far south to harm reindeer herds and fell too early to contaminate grasses and vegetables that have a late growing season because of Finland's long winter.

Domestic sources also contributed significantly to the country's problems with environmental pollution. The exceptionally strong growth rate of an economy based to a considerable degree on

energy-intensive industries was a factor, as were the fertilizer-dependent agricultural sector and the wood-processing plants that, between them, contributed much to the pollution of Finnish rivers and groundwater. By the 1980s, Finland registered considerably higher sulfur and nitrogen emissions than other West European and Nordic countries, and its discharge of oxidizable matter into water was three times the average of the members of the Organisation for Economic Co-operation and Development (OECD—see Glossary).

Finnish efforts to protect the environment began in the 1920s with the Nature Conservation Act of 1923, which allowed the establishment of nature preserves if they were needed. Since then there have been many laws covering different aspects of environmental protection, including water purity, control of poisons and pesticides, establishment of an oil pollution fund, waste management, prevention of marine and air pollution, and reduction of noise.

An attempt to protect the environment more thoroughly was evident in the formation of a ministry specifically pledged to this task. Established in 1983, the Ministry of Environment had four departments, employing about 250 persons in all. One department dealt with administrative matters, while the other three were concerned with environmental protection and nature conservation, physical planning and building, and housing. In 1986 the National Board of Waters with its 1,400 employees was renamed the National Board of Waters and the Environment and was placed under the new ministry.

In the mid-1980s, Finns were concerned about the environment, and a study found that only 11 percent of them would place economic growth above protection of the environment. Many believed ecological conditions were worsening. A 1983 poll found that only 31 percent of those questioned—compared with 57 percent in 1973—believed their country's environment to be very good or excellent. Another indication of Finns' concerns was the birth in the early 1980s of a new political party, the Greens, which was remarkably successful in elections (see *Smaller Parties and the Greens*, ch. 4). Commitment to pollution control also was seen in the portion of research money going to environmental research, which compared well with that spent by other countries. Despite these measures, there were observers in the late 1980s who contended that Finnish efforts in this area needed further improvement.

An OECD study published in 1988 held that, despite improvements, Finland still did not have an adequate environmental program. There was still no single law relating to the environment,

and different ministries often did not consult sufficiently with one another about the ecological impact of their plans. Despite the existence of excellent statistics about damage to the environment, decision makers were often not well informed about them. Also lacking, according to the OECD report, was a sufficient assessment, when making plans for economic development, of the real costs of pollution. Recommended for a more economical defense of the environment were an exact consideration of these costs and an increased use of the "polluter pays" and "user fees" principles. The report noted, too, that many local authorities lacked the expertise to deal properly with ecological decisions; moreover, because they were suspicious of the power of provincial-level and national-level officials, they were reluctant to cooperate fully with them.

## **Housing**

As part of its overall responsibility to supervise the nation's environment, the Ministry of Environment was charged with overseeing what kinds of buildings and housing Finns worked in and lived in, arranging remedies for existing deficiencies, and guaranteeing adequate conditions in the future. Two of the ministry's four departments, the Physical Planning and Building Department and the Housing Department, were created specifically for these tasks. In addition, the National Board of Housing, which had been created in 1966 to organize the state's administration of housing, was made subordinate to the ministry in 1986.

Efforts to improve the housing of workers began in the nineteenth century, as did arrangements for low-interest mortgages. The 1920s saw the passage of the Housing Corporation Act and the establishment of the Housing Mortgage Bank. It was only after World War II, however, that significant measures were undertaken to subsidize housing through what is known as Arava legislation. These laws were brought together in 1953 by the Housing Production Act, which became the basis of housing policy and which helped to foster the tremendous construction surge of the next two decades.

By the 1980s, it was estimated that about 75 percent of Finnish residential dwellings of all types had been constructed since World War II. For some types of dwellings the figure was even higher. For example, some 70 percent of apartments were built after 1960. Migration, whether voluntary or not, and an upsurge in population growth had made this construction necessary. Population movements during the economic boom caused the first half of the 1970s to be the period of peak construction, when as many as 70,000 units were built in a single year.

By the first half of the 1980s, about 48,000 units were built annually. In addition to a decline in building activity, the kinds of dwellings constructed changed. In the economic boom years, about two-thirds of new dwellings were apartments, and the remainder were free-standing houses or row houses. By 1980 the ratio was reversed. In addition, by the 1980s much construction work was for renovation, and government plans called for the number of buildings restored each year to climb from 15,000 in 1980 to 60,000 by the end of the 1990s.

The construction boom meant that Finns were housed better than before. The number of dwelling units increased from 1.2 million in 1960 to 1.8 million in 1980 and gave them more room. Finnish dwellings were still rather small, however. In the 1980s, their average size was sixty-nine square meters, nine square meters more than in 1970. Much poor standard housing had disappeared during the boom years. The new dwellings had modern conveniences; by 1980 nearly three-quarters of them—compared with only one-half a decade earlier—were fully equipped with hot water, indoor plumbing, central heating, and sewer connections. Although Finnish housing was still somewhat poorer than that of the other Nordic countries, it ranked well by world standards.

About 60 percent of Finns owned their dwellings, and Finns spent, on the average, about 18 percent of their income on housing. Government housing allowances helped people of low income to keep housing expenditures within 10 to 20 percent of this income. Government housing aid came in a number of forms, and it helped people in all income brackets. Housing allowances were paid to low-income groups and to pensioners living either in their own homes or in rental units. Low-interest loans were available to people earning modest incomes who desired to own their own homes. Better-off Finns benefited from tax relief if they had mortgages.

Not all government housing policies were so popular as subsidies, low-interest loans, and tax relief, for some had unfortunate results. The housing program's most serious failure was seen in the often sterile and boring apartment house complexes and even whole suburban developments and towns that were designed and built in the postwar period to meet pressing housing needs. Some planned towns were internationally famed for the beauty of their design. An example was Tapiola, located on the outskirts of Helsinki. Many others, however, provided an ugly and inhumane environment for those obliged to live in them. Often situated far from needed services and lacking softening amenities, the bleak dormitory villages were desolate shelter for newly uprooted migrants from the countryside, and they fostered antisocial behavior, family

problems, and illnesses. In later decades, authorities applied resources to these ill-conceived residential areas with the hope of making them more hospitable.

Another problem, less serious, was a shortage of rental units. Some observers held that state rent-control policies had reduced the profits earned by landlords and hence had caused a scarcity of rental properties. The lack of available rental housing particularly affected young people, generally not yet able to purchase their own homes.

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At the end of the 1980s, there was no single scholarly work in English that treated Finnish society as a whole. A number of British works from the 1960s and the 1970s treat many aspects of Finnish society, but they are out of date, and they vary considerably in quality. Of these books, the most readily available and useful is *Finland: An Introduction*, edited by Sylvie Nickels and others. The 1973 version of this work is available in an edition published in the United States. Patricia Slade Lander's *In the Shadow of the Factory: Social Change in a Finnish Community* is valuable, but it relies on fieldwork done in the late 1960s and the early 1970s. A noted student of Finland is the geographer William Richard Mead, whose books *Finland, How People Live in Finland* (written for children), *The Åland Islands* (written with S. H. Jaatinen), and *Winter in Finland: A Study of Human Geography* (written with Helmer Smeds) all contain much useful information. Wendy Hall's *The Finns and Their Country* and John L. Irwin's *The Finns and the Lapps* are intelligent and popular treatments of Finnish life.

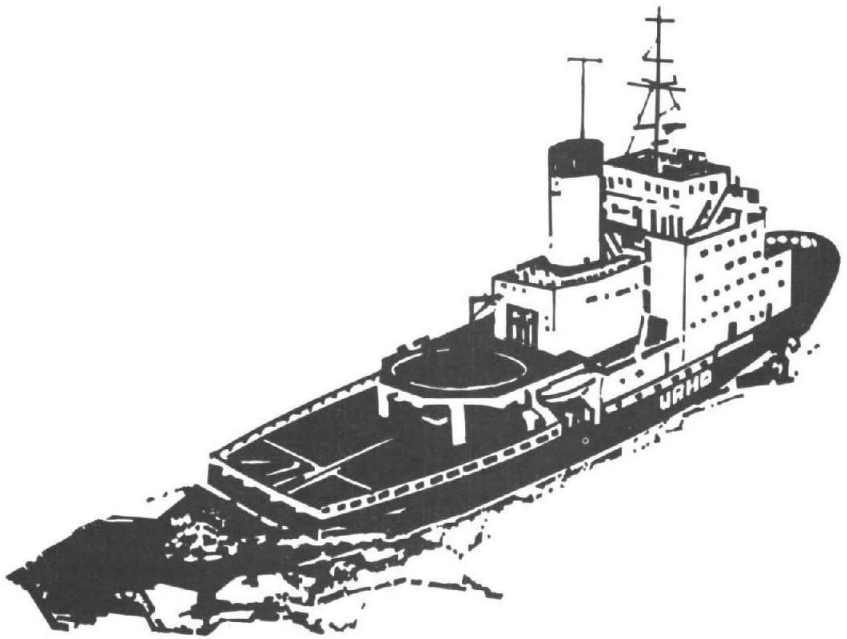
Readers with Swedish could consult *Samhället Finland*, an essay-length work dating from 1985, by Finland's renowned sociologist, Erik Allardt. This brief survey of the developments that have transformed Finnish society in the twentieth century will give the reader an understanding of Finland as it was in the 1980s. A festschrift in his honor, *Small States in Comparative Perspective: Essays for Erik Allardt*, contains articles by leading specialists on topics such as the family in the Nordic countries, the premature mortality of Finnish males, social mobility, and the establishment of Finland's welfare system. This last subject is treated at greater length by Matti Alestalo and Hannu Uusitalo in their detailed and sophisticated article appearing in the first volume of the series *Growth to Limits: The Western European Welfare States Since World War II*, edited by Peter Flora. Matti Alestalo's *Structural Change, Classes and the State: Finland in an Historical and Comparative Perspective* provides a learned

exposition of the country's class structure. *Nordic Democracy*, edited by Erik Allardt and others, treats Nordic Europe as a whole, but it contains much information about Finnish society. The detailed bibliographies accompanying these scholarly works will guide the curious reader further.

Brochures and pamphlets published by the Finnish government in English are available from Finnish embassies around the world. These publications are quite informative about the welfare and the education systems, the role of women, and other aspects of Finnish society.

Encyclopedic in its coverage of Finland is the series of atlases published by the Finnish government's National Board of Survey. The series' excellent maps graphically convey astonishingly detailed data about many aspects of Finnish society, and they are complemented by expert articles. English translations of the articles appearing in some of the atlases are available. (For further information and complete citations, see Bibliography.)

## Chapter 3. The Economy





*Finnish ice-breaker at work*

**FINLAND'S ECONOMY PERFORMED WELL** during the 1980s, allowing the Finns to enjoy widespread prosperity. After suffering the effects of depression and war during the 1930s and the 1940s, the economy started to show steady gains in about 1950. During the 1980s, the country enjoyed above-average growth, stable prices, and relatively low unemployment. Nevertheless, Finland did experience many of the problems found elsewhere in the industrial world, including high unemployment among youth, expensive agricultural surpluses, and declining industrial sectors. Moreover, certain aspects of the country's economic performance, such as serious cyclical instability, endemic industrial conflict, and difficulties in foreign trade, may have troubled Finland more than such situations disturbed other countries. Despite these problems, which required attention from policy makers and from businessmen, economists could point with pride to Finland's strong work ethic and pragmatic tradition.

In a country lacking many raw materials, the tenacious Finns had learned to make the most of scarce natural resources. Although most of the country was not arable, farmers worked hard to keep the country self-sufficient in staple foods. The country's forests, carefully managed to increase long-term yield, provided raw materials for the wood-processing industries, the largest earner of foreign exchange. Metals and minerals were scarce, but the country had established competitive enterprises in basic metals and in chemicals. The metalworking industry, developed largely to meet reparations payments to the Soviet Union, continued to expand during the postwar period. This industry specialized in sophisticated products, such as icebreakers and paper-making machinery, in which the Finns enjoyed a comparative advantage. Faced with a serious energy shortage after the oil crisis of 1973, the Finns embarked on a comprehensive conservation program and shifted investments toward less energy-intensive, high-technology products.

Effective policies deserved much of the credit for the country's economic successes. In the early years of the republic, the government had carried out extensive land reforms, a precondition for agricultural modernization. State-owned enterprises channeled investments into key industries, allowing the country to process its own raw materials. The crises of the depression, war, and reconstruction led to government controls that provided an essential

framework for production. By the late 1950s, once wartime bottlenecks had been eliminated, the government chose to pursue trade liberalization and deregulation. Following this basic orientation, Finland's leaders agreed to free trade in industrial products, thus forcing the country's industries to compete and to modernize. By the late 1970s, macroeconomic policies gave priority to fighting inflation and to dampening cyclical instability. During the 1980s, government policies pursued export competitiveness, in part through favoring industrial rationalization and financial deregulation. By the mid-1980s, some economists saw Finland as the most capitalist country in Europe.

To pay for needed imports, the Finns depended on export markets in Western and in Eastern Europe. To protect those markets, Finland had pursued economic integration with both Eastern and Western Europe. The Finns maintained good commercial relations with the Soviet Union, a strategy that had paid off handsomely in the 1970s, when rising petroleum prices increased the value of trade with the East, compensating Finland for declines in Western markets. After the mid-1980s, however, as world oil prices declined, the Finns shifted toward the West, especially toward the European Community (EC—see Glossary). Although balancing close economic relations with both market-oriented and planned economies posed special challenges, Finnish traders proved adept in both environments. In the late 1980s, industry and finance sought to build on earlier successes by internationalizing their operations, often in partnership with foreign firms.

In the late 1980s, the most important economic challenge was to keep both production costs and product quality competitive in international markets. This challenge would require hard work, as well as close cooperation among government, business, and labor. The government, industry, and the universities needed to increase spending on research and the development of new technologies. The Finns would also have to limit inflationary wage increases and improve labor flexibility without worsening labor conflict. Many economists believed, however, that the prevailing consensus in favor of modernization and stable, steady growth was strong enough to allow the country to face the future with optimism.

## **Growth and Structure of the Economy**

During the seven decades after the establishment of the republic in 1917, Finland made remarkable economic progress. At the time of the collapse of the Russian Empire in 1917, the Grand Duchy of Finland had the most backward economy in Nordic Europe. Situated at the outer edges of the spheres of influence of

the major European industrial powers—Britain, Germany, and Sweden—newly independent Finland appeared destined to remain a poor, peripheral area. By the late 1980s, however, the country had become one of the world's advanced industrial societies, the citizens of which enjoyed a high standard of living and the industries of which dominated world markets for significant high-technology products. Finland was an industrial society, but it was self-sufficient in staple foods and produced a wide range of goods and services for domestic and export markets. Although the economy still depended on exports, the Finns had developed markets in both Eastern and Western Europe, avoiding excessive dependence on any single market.

### **Economic Development**

Material conditions were difficult at the birth of the Finnish republic. The country's industries had started to develop after about 1860, primarily in response to demand for lumber from the more advanced economies of Western Europe, but by 1910 farmers still made up over 70 percent of the work force. Finland suffered from food shortages when international trade broke down during World War I. The fledgling metal-working and shipbuilding industries expanded rapidly to supply Russia during the early years of the conflict, but the empire's military collapse and the Bolshevik Revolution in 1917 eliminated trade with the East. The Finnish civil war and the subsequent massacres of the Reds spawned lasting labor unrest in factories and lumber camps, while the plight of landless agricultural laborers remained a pressing social problem (see Independence and the Interwar Era, 1917-39, ch. 1).

During the immediate postwar years, Finland depended on aid from the United States to avoid starvation, but by 1922 industrial production had reached the prewar level. While trade with the Soviet Union languished for political reasons, West European, especially German, markets for Finnish forest products soon reopened. In exchange for lumber, pulp, and paper—which together accounted for about 85 percent of exports—Finland obtained needed imports, including half the nation's food supply and virtually all investment goods.

Despite political instability, the state built a foundation for growth and for greater economic independence. The first and most important step was an agricultural reform that redistributed holdings of agricultural and forest land and strengthened the class of smallholders who had a direct stake in improving farm and forest productivity. The government also nationalized large shares of the mining and the wood-processing industries. The subsequent public

investment program in mines, foundries, wood and paper mills, and shipyards improved the country's ability to process its own raw materials. By the late 1920s, agricultural modernization was well under way, and the country had laid the foundations for future industrialization.

Although Finland suffered less than more-developed European countries during the Great Depression of the 1930s, the country nonetheless experienced widespread distress, which inspired further government intervention in the economy. Comprehensive protection of agricultural produce encouraged farmers to shift from exportable animal products to basic grains, a policy that kept farm incomes from falling as rapidly as they did elsewhere and enabled the country to feed itself better. Similar policies spurred production of consumer goods, maintaining industrial employment. As in other Nordic countries, the central bank experimented with Keynesian demand-management policies.

In the 1930s, Britain replaced Germany as Finland's main trading partner. The two countries made bilateral agreements that gave Finnish forest goods free access to British markets and established preferential tariffs for British industrial products sold to Finland. Consequently, Finland's largest industry, paper production, expanded throughout the depression years (although falling prices led to declining export revenues). The economic growth of Finland resumed in 1933 and continued until 1939.

Production and employment had largely recovered from the effects of the depression when the Winter War began in 1939. The struggle marked the beginning of five years of warfare and privation. By 1944, after two defeats at the hands of the Soviet Union and severe losses suffered while expelling German troops, Finland's economy was nearly exhausted. Under the terms of the 1944 armistice with the Soviet Union, the country ceded about 12 percent of its territory, including valuable farmland and industrial facilities, and agreed to onerous reparations payments. To many Finns, it appeared that most of the achievements of the interwar years had been undone (see *World War II, 1939-45*, ch. 1).

Postwar reconstruction proved difficult. Resettling refugees from the areas ceded to the Soviet Union required another land reform act, subsidies for agricultural infrastructure, and support payments for displaced industrial workers. Reparations deliveries to the Soviet Union absorbed much of the country's export potential. The need to remain politically neutral precluded participation in the Marshall Plan (European Recovery Program), but Finland arranged substantial loans from the United States Export-Import Bank to finance expansion in the forest industries. High inflation rates

inherited from the war years fed labor militancy, which further threatened output.

Despite these setbacks, the tenacious Finns soon fought their way back to economic growth. Reparations turned out to be a blessing in disguise—at least for the metalworking industries, which supplied about three-fourths of the goods delivered to the Soviet Union. In effect, forced investment in metalworking laid the foundations for Finland's later export successes. The fulfillment of the reparations payments in 1952 symbolized the end of the postwar difficulties, but the real turning point probably came in about 1950, with the Korean War boom in the West. During the 1950s, the metalworking industries continued to export to the Soviet Union, a market in which the Finns faced virtually no competition from other Western countries. Extensive borrowing in Western financial markets—especially in Sweden and in the United States—financed investments in infrastructure, agriculture, and industry. The consumer goods and construction sectors prospered in the booming domestic market, which remained protected by import controls until the end of the decade.

From 1950 to 1974, Finland's gross national product (GNP—see Glossary) grew at an average annual rate of 5.2 percent, considerably higher than the 4.4 percent average for members of the Organisation for Economic Co-operation and Development (OECD—see Glossary). However, partly as a result of continued dependence on volatile lumber exports, this growth was more unstable than that in other OECD countries. The business cycle caused fluctuations in output that averaged 8 percent of gross domestic product (GDP—see Glossary). Finland's structural transformation was brutally quick, driving workers out of agriculture more quickly than had been the case in any other Western country. Although manufacturing output increased sharply, many displaced farm workers could not be placed in industry. At the same time, Finnish inflation, which tended to exceed that of the country's major trading partners, necessitated regular currency devaluations. Yet, despite the costs of economic growth, most Finns were happy to have escaped the hardships of the depression and the war years.

Rapid structural transformation led to innovative economic policies. During the 1950s, the state had maintained strict controls on many aspects of economic life, protecting the country's fragile economic balance, but it had lifted many restrictions by the end of the decade. Moreover, in 1957 policy makers chose to liberalize foreign trade in industrial goods, strongly influencing future economic developments. The achievement of prosperity in the 1960s

made possible the extension of the welfare state, a development that did much to reduce tensions between workers and management (see *Finland in the Era of Consensus, 1966–81*, ch. 1). Finland's increased foreign trade made industrial competitiveness more important, causing greater interest in restraining the inflationary wage-price spiral. Starting in 1968, the government succeeded in sponsoring regular negotiations on wages, benefits, and working conditions (see *Human Resources*, this ch.). The political consensus that developed around incomes settlements helped to slow inflation and to increase productivity. Liberalization, welfare programs, and incomes policy thus helped to maintain economic growth during the 1960s and facilitated stronger economic relations with both Eastern and Western Europe.

In the 1970s and 1980s, changes in domestic and international economic conditions posed new challenges. At home, Finland was reaching the limits of extensive economic growth. Expansion was incorporating ever-greater amounts of raw materials, capital, and labor in the production process. The economy needed to shift to intensive growth through better resource management, improved labor productivity, and newer technologies. In international markets, the oil crises of 1973 and 1979 caused particular difficulties for the Finns, who imported over 80 percent of their primary energy supplies. The country did suffer less than other West European countries from increased oil prices because of its special trading relationship with the Soviet Union, which supplied petroleum in exchange for Finnish industrial goods. However, recession in Western markets, growing technological competition, and tighter financial markets made Finland's traditional cycles of inflation and devaluation untenable. Thus, although the country managed to delay austerity measures for five years, in 1978 balance-of-payments considerations compelled the government to introduce a far-reaching reform package designed to ensure the competitiveness of Finnish industry in world markets (see *Role of Government*, this ch.).

Although the austerity package pursued after 1978 slowed growth in personal consumption, the consensus approach to wage and benefit negotiations remained reasonably intact. In addition, many Finnish workers proved sufficiently flexible to accept transfers from declining sectors to those in which the country enjoyed a comparative advantage. As a result of competent macroeconomic management and favorable trading relations with both Eastern and Western Europe, Finland was able to sustain growth in GDP at an average annual rate of about 3.3 percent from 1980 to 1986—a rate well above the OECD average.

During the 1980s, structural developments in the Finnish economy paralleled those in other West European economies. Although surplus production of animal products plagued agriculture and led to cutbacks in agricultural subsidies, the country preserved family farming. Policy makers continued to monitor forestry, energy, and mineral resources closely, even when falling petroleum prices reduced pressures on the economy. Industry underwent intensive restructuring, eliminating many inefficient producers and consolidating healthy enterprises. Despite mergers and rationalization, Finland lost fewer industrial jobs than most OECD countries, so that unemployment was held below the double-digit levels common elsewhere on the continent. Private services, especially banking and insurance, expanded more rapidly than other sectors, also helping to limit unemployment.

### **Structure of the Economy**

By 1986 postwar economic growth had raised Finland's GDP to about US\$70.5 billion, making the country one of the most prosperous in the world. Economic expansion over the years had substantially altered the structure of the economy (see fig. 14; fig. 15; table 13, Appendix A). By 1986 agriculture, forestry, and fishing had fallen to a little under 8 percent of GDP from nearly 26 percent in 1950. Industry, including mining, manufacturing, construction, and utilities, accounted for about 35 percent of GDP, down from about 40 percent in 1950. Within industry, metalworking had grown most rapidly, its output almost equalling that of wood processing by the late 1970s. In the late 1980s, industrialists looked forward to a shift toward electronics and other high-technology products.

While agriculture and industry had declined in relative terms during the postwar years, the service sector had grown from about 34 percent of GDP to almost 58 percent, leading some observers to characterize Finland as a postindustrial society. Several factors accounted for the expansion of the service sector. Government, very small under the Russian Empire, grew rapidly between the Great Depression and the early 1970s as the state took responsibility for an increasingly greater share of economic life. In addition, transportation, communications, engineering, finance, and commerce became more important as the economy further developed and diversified.

Control and ownership of Finland's economic life were highly concentrated, especially after the industrial and financial restructuring of the 1980s. Thus, by 1987 three firms controlled most shipbuilding, a small number of woodworking enterprises dominated



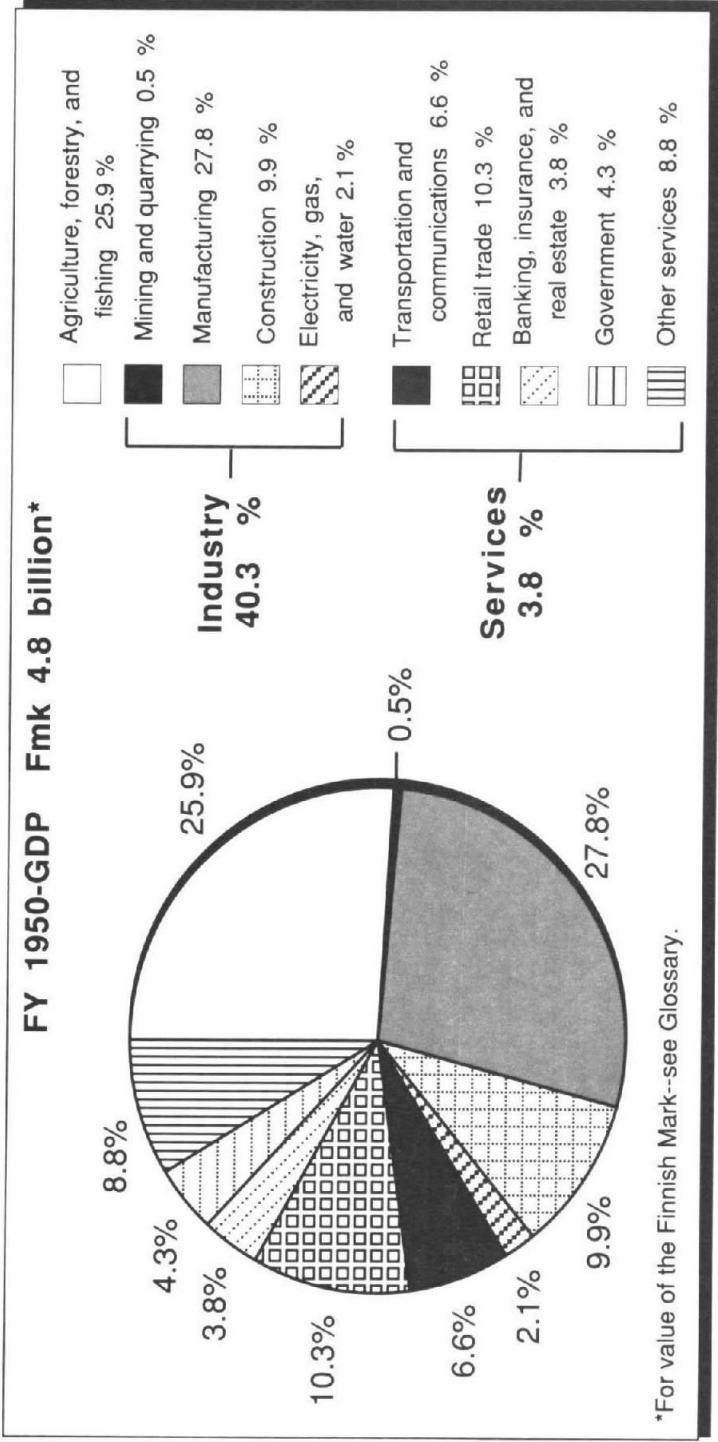


Figure 14. Structure of Gross Domestic Product (GDP), 1950

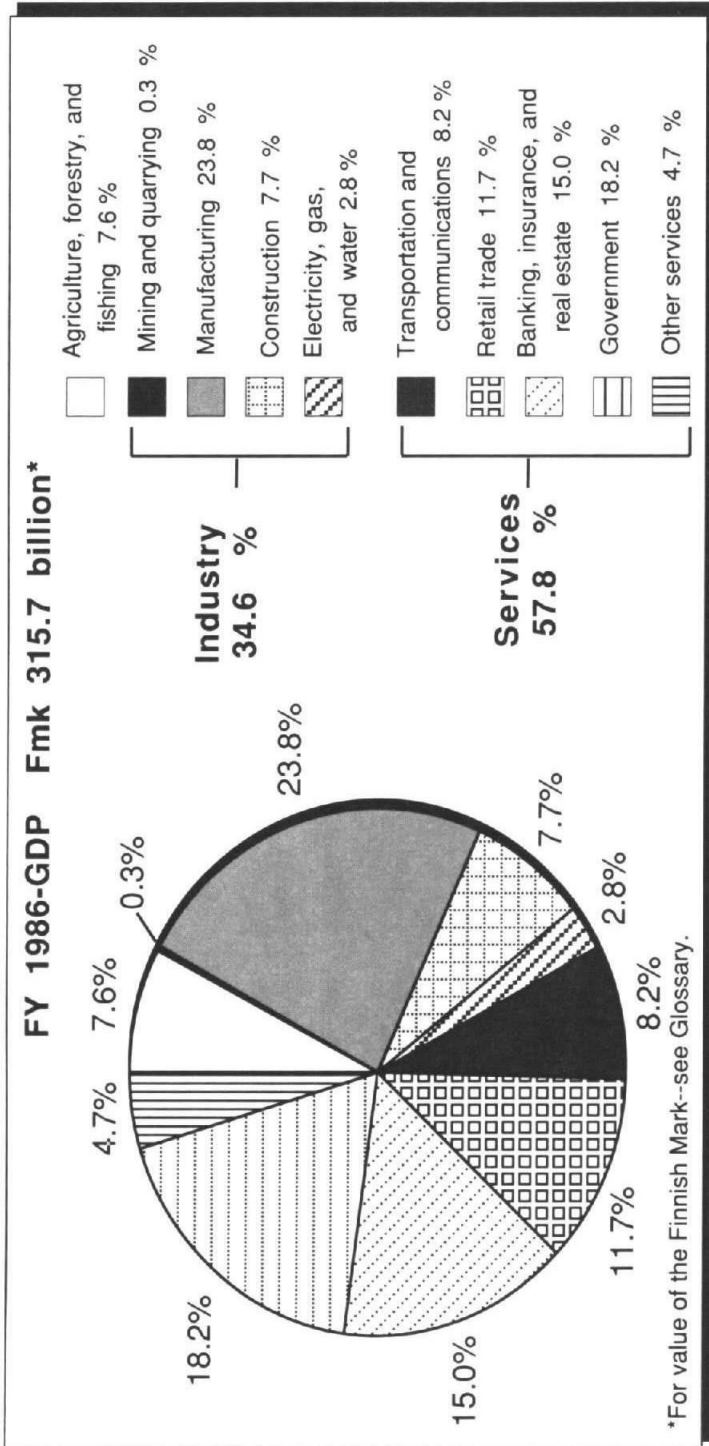


Figure 15. Structure of Gross Domestic Product (GDP), 1986

the forest industries, and two main commercial banks exercised wide-reaching influence over industrial development. Large state-owned firms provided most of the energy, basic metals, and chemicals. The country's farmers, workers, and employers had formed centralized associations that represented the vast majority of economic actors. Likewise, a handful of enterprises handled most trade with the Soviet Union. Some observers suggested that the trend toward internationalization might increase the influence of foreign firms and executives in Finnish enterprises, but this effect would make itself felt slowly. Thus, while Finland remained a land of family farms, a narrow elite ran the economy, facilitating decision making, but perhaps contributing to the average worker's sense of exclusion, which may have contributed to the country's endemic labor unrest.

## **Role of Government**

As in most European countries that were late in industrializing, the Finnish state played an important role in sponsoring economic development. Thus, in the interwar years, the government carried out crucial agricultural reforms and established pioneering industrial enterprises. During World War II, the government imposed comprehensive economic controls to support the defense effort, many of which remained in force during the reconstruction years. Starting in the 1950s, however, as economic growth overcame production bottlenecks and shortages of consumer goods, the government gradually relaxed the regulatory framework. Nevertheless, wartime intervention in the economy had left institutional legacies that influenced later economic policies.

The need to maintain export markets in Western Europe, itself engaged in a process of economic integration by the late 1950s, led the government to decide to liberalize trade in industrial products. Free trade, in turn, undermined the government's ability to isolate the domestic economy from world market conditions. Increasingly tied to the economies of the Nordic area and Western Europe, Finland was constrained to adopt policies similar to those in force elsewhere. Although the policy packages varied in response to domestic political developments and international market shifts, they all took into account Finland's position as a small, relatively open economy, in which fluctuations in raw material exports had a significant impact on the business cycle. By the late 1980s, when exports and imports each accounted for about one-quarter of GDP, export competitiveness had become the dominant policy concern.

Some analysts saw in Finnish economic management a liberal, noninterventionist variant of the economic policies of other Nordic

states. Thus, Finland, less prosperous than its Western neighbors, did not develop a comprehensive welfare state until the late 1960s, and it held benefits below the Scandinavian average (see *Growth of the Social Welfare System*, ch. 2). Like other Nordic states, Finland had institutionalized wage and benefit negotiations, but the Finnish system of industrial relations involved substantially more conflict than the systems in the Scandinavian states (see *Human Resources*, this ch.). Along the same lines, Finland protected domestic agriculture, but generally avoided bailing out declining industrial concerns, favoring measures to facilitate structural adjustment. Finnish politicians, some of whom saw Sweden as a model, claimed that their neighbor's mistakes had taught them to avoid excessive welfare programs and industrial subsidies that would slow adaptation to new market conditions. Foreign analysts noted, however, that special factors, such as Finland's relatively late industrial development and the role of Finland's trade with the Soviet Union, also helped to explain deviations from the general Nordic pattern. By the 1980s, as austerity policies spread throughout the region, aspects of Finnish policy seemed to lead rather than to follow Nordic developments.

Despite the *laissez-faire* slant of Finnish economic policy, direct state intervention strongly influenced operating conditions in many sectors. In agriculture, for example, years of government support and tariff protection had sustained a relatively large rural population that expected continued aid regardless of the need to cut farm surpluses (see *Agriculture*, this ch.). Similarly, the state had established enterprises in capital-intensive, high-risk sectors, including energy, minerals, basic processing, and manufacturing in which private investment had proven inadequate. By the mid-1980s, private capital markets were relatively well-developed, but the twenty state enterprises still accounted for some 21 percent of industrial production, and they included many of the country's leading firms, such as the Kemira Group in chemicals, Enzo-Gutzeit in wood processing, the Valmet Group in engineering and shipbuilding, and Valvillia in textiles. Yet industrial policy no longer depended on state ownership, and these enterprises functioned much as private companies. Indeed, starting in the early 1980s, the Ministry of Trade and Industry, which was responsible for state enterprises, began to demand that they earn profits. The state maintained monopolies in alcoholic beverages, energy (Neste and Imatran Voima), and minerals (the Outokumpu Group and Rautaruukki) for political reasons, but divestment in other sectors was a possibility. In 1988 the government decided to allow certain state enterprises to sell shares. The Valmet Group was the first state

firm to announce plans for a stock offering, and observers reported that Outokumpu, Kemira, and Neste were also candidates for partial privatization, depending on how well the Valmet stocks sold. The government planned to retain controlling interests in the companies for at least several years, but some politicians favored complete privatization.

Privatization and deregulation were ways to dismantle the relics of earlier economic policies and to release public resources for other purposes. In the late 1980s, government interest concentrated on speeding rationalization and restructuring, even at the cost of higher unemployment and greater industrial concentration. Industrial policy sought to foster a shift away from heavy engineering toward electronics and high-technology production. The state sharply increased expenditures for research and development, and it helped coordinate efforts among universities, private industry, and government research centers (see *Industrial Policy*, this ch.). The government and the Bank of Finland (BOF), Finland's central bank, gradually deregulated the financial sector in an effort to improve the efficiency of capital markets (see *Banking and Finance*, this ch.). Thus, although the state continued to control certain key sectors, such as agriculture, forestry, minerals, and energy, overall economic policy had shifted from sectoral intervention toward efforts to improve productivity and market efficiency.

### **Macroeconomic Policy**

During the 1960s and 1970s, government policy had pursued rapid economic growth and high investment in industry, often to the detriment of price stability. By the mid-1960s, the government, generally in concert with the BOF, which controlled monetary and exchange-rate policy, established a macroeconomic approach with fixed roles for monetary, fiscal, incomes, and exchange-rate policies. In general, monetary policy aimed at keeping interest rates low to favor domestic investment. The BOF imposed strict controls on capital exports, which made possible negative real interest rates, and rationed credit to the commercial banks, which controlled most investment. The perceived need to balance budgets, usually annually, handicapped fiscal policy. The government used incomes policy to influence wage settlements, often offering tax breaks in exchange for concessions from management and labor, but incomes policy was rarely coordinated with the general macroeconomic strategy. Exchange-rate policy was dedicated to safeguarding industrial competitiveness.

Although this policy package favored growth, high employment, and industrial development, the economy suffered from greater

inflation and instability than those of other OECD countries. Public spending remained under firm control, but low interest rates and tax cuts fueled domestic inflation. At roughly ten-year intervals, Finland experienced export-led booms followed by major devaluations and severe recessions. Fluctuations in world demand for Finnish exports were largely responsible for the cycles, but economic policies magnified them. Typically, a period of overheating in the economy, occasioned by an upswing in exports and by the relatively inelastic supply of exportable commodities, led to sharp increases in wages and prices in the export sector as well as to greater imports of investment goods. Faced with declining export competitiveness and a worsening external balance, the authorities responded with major currency devaluations (24 percent in 1967; 10 percent in 1977-78) and with tighter macroeconomic policies, which dampened domestic demand but restored competitiveness. Output recovered following each devaluation, only to decline as domestic inflation rocketed higher, further eroding competitiveness in external markets.

Although Finland managed to avoid restructuring traditional policies until several years after the 1973 oil crisis, an especially severe downturn in the second half of the 1970s, caused largely by recession in West European markets, inspired a new policy approach. Starting in 1977, with the adoption of a five-year stabilization program, the government began to give priority to fighting inflation and to overcoming the devaluation cycle, even at the cost of higher unemployment and slower growth in the short run.

The new macroeconomic framework involved changing the traditional assignments for each policy tool. Perhaps the most important innovation was a more active role for fiscal policy. Given the low level of Finnish state debt, policy makers stopped requiring that the budget balance each year, and they aimed instead for a balanced budget over the life of the business cycle. Fiscal policy became consciously countercyclical, and increased spending during the 1982-83 slowdown was followed by tax increases in the 1984-85 upswing. In addition, the authorities adjusted tax rates not only to moderate wage demands but also to affect investments and export competitiveness. The implementation of monetary policy shifted from offering negative interest rates in a protected capital market to using interest rates to dampen inflation and to influence the exchange rate. Monetary policy came to depend even more on market operations by the mid-1980s, as deregulation of financial markets eliminated the earlier system of capital rationing. The tighter monetary stance tended to reduce the volume of investment, but economists expected that the quality of investments would

improve. After 1977 the BOF attempted to peg the external value of the Finnish mark to a trade-weighted "basket" of foreign currencies. The new exchange-rate policy was meant to curtail both domestic and imported inflation. Indeed, in 1979 and 1980, the currency was allowed to appreciate for the first time in the post-war period in response to greater export demand. Policy makers hoped that the stable exchange rate would eliminate distortions caused by an undervalued or overvalued currency and would allow market conditions to determine investment decisions.

The new approach to managing the economy still depended on negotiated incomes settlements to restrain wage growth and to dampen inflation. The government continued to try to influence agreements between capital and labor by means of fiscal or other incentives. Implementing such sophisticated policies required extensive coordination and cooperation among government ministers belonging to different parties, the BOF, and leaders in agriculture, industry, and labor. Although differences among interest groups continued to exist and sometimes resulted in serious conflicts, the country enjoyed widespread consensus regarding the desirability of medium-term stabilization. It was this consensus—and the macroeconomic policies it made possible—that deserved much of the credit for Finland's relatively strong economic growth, low unemployment, and price stability.

### **Public Finance**

As of 1987, public-sector spending amounted to about 42 percent of GDP, below the OECD average. Austerity policies had limited real budget increases to about 1.5 percent per annum from 1980 to 1987, substantially less than the rapid growth in government spending during the 1960s and 1970s (see table 14, Appendix A). Total taxes amounted to about 36 percent of GDP in 1987, fluctuating by a few percentage points from year to year. Because of the gap between taxes and spending, government debt grew relatively rapidly during the 1980s, reaching almost 15 percent of GDP by 1987, but it was still low by OECD standards.

Each autumn the Ministry of Finance submitted to the Eduskunta, the country's parliament, the budget for the next fiscal year (which corresponded to the calendar year), accompanied by a survey of the economic situation. Early in the following spring, while the budget was being debated, the ministry published a revised version of the survey, which estimated the overall fiscal impact on aggregate demand, income, and money supply. After parliamentary approval of the annual budget, the government often responded to changing conditions by requesting supplementary appropriations,

sometimes significantly modifying the original budget.

Starting in the late 1970s, as it sought to maintain tight limits on the growth of the public sector, the government, in its fiscal policy considerations, began to analyze social security funds and local spending as parts of the overall budget. The central government regularly transferred large sums to local authorities, which accounted for about two-thirds of public-sector operations. Local administrations levied a flat tax, which had reached about 16 percent in 1986, on earned income. The central government influenced local expenditures by regulating transfers and by negotiating multiyear spending limits. Nevertheless, current local government expenditures, many of which were required by law, sometimes exceeded targets. The central government also attempted to manipulate social security taxes as an instrument of fiscal policy, a technique that Finland had pioneered. The government lowered employers' contributions for health, accident, and unemployment insurance by about 2 percent of the wage bill between 1977 and 1987 in an attempt to encourage job creation.

National taxes absorbed about 26 percent of GDP, and local taxes, roughly 16 percent, in the mid-1980s. In 1986 the government introduced reforms of business income taxes, including a reduced value-added tax on energy, designed to improve export competitiveness. In 1988 the legislature enacted a comprehensive tax reform meant to reduce marginal rates of taxation after eliminating many deductions. Policy makers expected that the 1988 reform would reduce tax-induced distortions in investment behavior and would make the tax system fairer.

Government spending had changed significantly during the post-war years. In the late 1940s and early 1950s, temporary expenditures associated with the war dominated the budget. From the early 1950s to the early 1970s, the fastest-growing sectors in the budget were education, social welfare transfers, and capital investments. By the late 1980s, current expenditures remained roughly the same as in the 1970s, but investments had fallen. In 1987, for example, debt service led expenditures (at about 17.2 percent of total outlays), followed closely by social security (17.1 percent) and education, science, and the arts (16 percent). Government operations and defense amounted to about 14.7 percent, and health, to 8 percent. Except for agriculture and forestry (which absorbed 8.3 percent) and transport (8 percent), subsidies for different branches of the economy took relatively small amounts: housing, 4.4 percent; industry, 3.4 percent; and labor, 2.5 percent.

Finland's state debt, at about 14 percent of GDP in 1987, was



low by international standards, as was the debt of local governments, which stood at roughly 3 percent. Nevertheless, during the 1980s the government tried to limit the growth of state debt to avoid increased interest expenditures. As of 1987, slightly more than half the state debt was in foreign currencies. When the state sought financing abroad, it avoided crowding out private borrowers in Finland's relatively shallow capital market, but foreign debt increased foreign-exchange risk. In 1986 and 1987, however, officials took advantage of their government's high credit rating to refinance much of the debt at lower interest rates. Although policy makers would have to manage the debt carefully, most analysts believed it was unlikely that Finland's state debt would seriously constrain government operations during the late 1980s and early 1990s.

## **Human Resources**

Finland's work force was the country's most valuable economic asset; managing it posed the greatest challenges to both business and government. Like most European countries, Finland suffered from unemployment, but employers reported difficulties in finding qualified workers. Although the country boasted a consensual approach to industrial relations, strikes often interrupted production. Likewise, Finland's workers enjoyed a high standard of living, but regular wage increases contributed to domestic inflation, worsened unemployment, and exacerbated balance-of-payments difficulties. Business often granted seemingly excessive wage increases, yet alienated workers through adamant opposition to increased democracy in the workplace. Government policies addressed labor problems with only limited success.

## **Employment**

In 1986 the civilian labor force numbered a little more than 2.5 million, of which about 5.4 percent were unemployed (see table 15, 1950-85, Appendix A). Less than 11 percent of the work force worked in agriculture and forestry (down from over 45 percent in 1950). Employment in industry and construction amounted to about 32 percent, while the service sector employed a little over 57 percent. Finland's employment structure resembled that of other European countries, except that agricultural employment was still higher than the West European average, and industrial employment had fallen more slowly in Finland after the 1973 oil crisis than it had elsewhere. Economists suggested that both phenomena reflected Finland's relatively late industrialization and that the country could expect further declines in the employment shares of agriculture and industry.

As in most European countries, general unemployment became a serious problem during the 1970s, rising from about 1.8 percent in 1974 to an average of about 5.7 percent between 1980 and 1986. Official statistics showed that unemployment had fallen to 5.5 percent for the first half of 1987, but this figure had resulted from redefining unemployed workers over 55 years of age as retired. The number of unemployed persons actually had barely changed between 1986 and 1987. Despite economic growth, during the early 1980s total demand for labor stagnated, but the working-age population increased by an average of 1.2 percent each year. Economists estimated that real GDP would need to rise by over 3 percent per year in the late 1980s and early 1990s just to keep up with the growing work force.

While unemployment was less severe in Finland than it was in most European countries, policy makers considered the job shortage to be the country's main economic problem. Young people suffered most from the rise in unemployment. In the late 1980s, the unemployment rate for people between the ages of fifteen and twenty-four was almost twice the overall average. The aging of the population would tend to reduce the youth unemployment rate in the 1990s, but observers predicted that the total population of working-age persons would continue to rise for at least a decade and that unemployment would be a serious problem.

Although many workers could not find jobs, some employers reported difficulties in finding skilled industrial workers; in particular, construction and service workers were hard to find in the booming Helsinki area. Although certain skills might be in short supply, the work force generally was competent and hardworking. Indeed, during the postwar years, the number of Finns with vocational training had increased fourfold, and the number of university graduates had increased fivefold (see Education, ch. 2). The graduates of Finland's management schools were well prepared to meet the challenges posed by an increasingly international business environment. Some managers argued that young Finns showed more initiative on the job than their parents.

The government tried to cope with unemployment, focusing on youth joblessness. Aside from expanding public employment, generally seen as a stopgap, state efforts included retraining programs for unemployed workers, advanced vocational training, travel and resettlement allowances, and subsidies for housing in areas with labor shortages. A particularly effective mechanism was the nationwide employment exchange, which brought together people seeking employment with potential employers. In the long run, however, such measures could only serve as palliatives. Analysts believed

that the state could best increase employment by following sound macroeconomic policies and by facilitating cooperation among the organizations representing labor and management.

### **Industrial Relations**

Although trade unionization had started somewhat later in Finland than it had throughout the rest of the continent, in the 1980s the country's workers and employers were the most highly organized in Western Europe. According to the Ministry of Labor, about 80 percent of the work force belonged to unions, although the rate varied significantly among industries. Employers' federations also represented most enterprises (see Interest Groups, ch. 4).

Conflict between labor and management was fierce during the interwar years because tensions resulting from the civil war had soured industrial relations. Labor-management collaboration improved in 1940 when the Central Organization of Finnish Trade Unions (Suomen Ammattiyhdistysten Keskusliitto—SAK) and the Confederation of Finnish Employers (Suomen Työnantajain Keskusliitto—STK) recognized each other and agreed to cooperate during the national emergency. Industrial relations languished immediately after World War II, however, in part because government regulations tied wages to the cost-of-living index. Despite a general strike in 1956, occasioned by conflicts of interest among farmers, workers, and management, a spirit of compromise gradually developed in the late 1950s and early 1960s.

Finland's industrial relations took an important turn for the better in 1968, when a system of centralized incomes agreements was instigated by the government, which hoped to curb inflation and improve competitiveness after a major currency devaluation. After that date, regular negotiations, involving the government, labor, and employers, led to central agreements on wages, benefits, work conditions, and social policy. Negotiations usually started in the fall and ended in March. Senior civil servants acted as mediators between labor and management. The government often offered concessions, such as tax reductions, longer vacations, or reduced employer social security contributions, in exchange for wage restraint or increased investment. The central agreement among the national federations was not binding on individual unions. In practice, however, the central agreement provided guidelines for contracts made between unions and employers or, if necessary, between workers and management at individual factories. Contracts affecting civil servants and professionals were usually negotiated after settlements in industry, as were settlements concerning prices paid for agricultural commodities and lumber. In this way, wages in

private enterprises exposed to international competition influenced the protected sectors of the economy.

Many observers feared renewed labor conflict during the 1980s as slower growth, stiff foreign competition, and austerity policies put pressures on the negotiation process. Strikes did occur, mostly during the spring negotiation season. In 1986, for example, unions representing salaried employees, technicians, and professional personnel accepted the central agreement, but SAK held out for shortened work hours. When the STK demanded greater flexibility in setting work schedules in exchange for the proposed reduction in work time, SAK responded with the first general strike since 1956. As a result, SAK gained a larger wage increase than the other federations and a provision that by 1990 would reduce the work week in industry to 37.5 hours. Moreover, a number of local unions refused to follow the central agreement, preferring to negotiate on their own.

In 1988 the government was unable to implement a national agreement, largely because of opposition from employers. Unions and employers reached agreements industry by industry, generally following the settlement reached in the paper industry. In this industry, blue-collar workers had achieved wage increases of about 4 percent for the first year of their two-year agreement, while white-collar workers had received higher raises; the parties had agreed to delay negotiations for the second year. Although its proposals had been rejected, the government still intervened in the negotiation process by introducing legislation on retraining programs, security against dismissal, and worker representation on company boards. The fact that important service branches, such as banking, insurance, and trade, had opted for multiyear agreements in which wage increases were to be negotiated a year at a time, further indicated that the centralized negotiation process was becoming fragmented. Despite these apparent setbacks, most Finns supported an incomes policy as a way to restrain wages, thereby protecting real earnings.

Despite widespread consensus on incomes policy, Finland continued to experience more strikes and lockouts than other Nordic states. In principle, Finnish legislation blocked strike actions during periods governed by incomes agreements. Moreover, according to the law regulating strikes, unions were required to give two weeks' notice to both employers and the state before initiating a strike, and the government could delay a strike and could require mediation. Despite these controls, illegal work stoppages occurred regularly, often involving small, but well-placed, groups of workers. In 1986, for example, air traffic controllers shut down the

Helsinki airport for two weeks. The number of strikes had declined, however, after 1984, when the central incomes agreement had included a ninefold increase in the fines for illegal strikes.

## **Agriculture, Forestry, and Fisheries**

The Finns traditionally earned their living from the produce of their soils and waters. Even though by the 1980s Finland had long been an industrial country, many Finns continued to see the hard-working farmer as an upright figure whose way of life should be preserved so the country would not lose contact with its rural roots. Agriculture, forestry, and fisheries had shrunk to less than 10 percent of GDP by the late 1980s, but these sectors remained crucial for the country's economic security. Although only 8 percent of its territory was arable, the country had been self-sufficient in basic foodstuffs since the 1960s—indeed, surpluses of dairy products and meat caused serious difficulties in the 1970s and the 1980s. Seventy-six percent of the country was covered by forests, which supplied the country's most important raw material—lumber. Agriculture and forestry had long been closely linked: most farms included forestland, and most farmers supplemented their earnings by selling lumber or by working in the forest industries during the winter. Although rivers and lakes covered about 9 percent of Finland, and the country had extensive coastal waters, fishing was not an important source of food or employment.

The Ministry of Agriculture and Forestry was responsible for policies dealing with agriculture, forestry, and fishing. Recognizing the close links among these sectors, the government considered that policies should offer integrated solutions to the problems of managing the country's resources.

### **Agriculture**

Finland's climate and soils make growing crops a particular challenge. The country lies between 60° and 70° north latitude—as far north as Alaska—and has severe winters and relatively short growing seasons that are sometimes interrupted by frosts. However, because the Gulf Stream and the North Atlantic Drift Current moderate the climate, Finland contains half of the world's arable land north of 60° north latitude. Although precipitation is fairly well distributed throughout the year, summer droughts pose occasional problems. In response to the climate, farmers have relied on quick-ripening and frost-resistant varieties of crops, and they have cultivated south-facing slopes as well as richer bottomlands to ensure production even in years with summer frosts. Most farmland had originally been either forest or swamp, and the soil



*Gathering hay on a small farm in Urjala in the province of Häme  
Courtesy Embassy of Finland, Washington*

had usually required treatment with lime and years of cultivation to neutralize excess acid and to develop fertility. Irrigation was generally not necessary, but drainage systems were often needed to remove excess water.

Until the late nineteenth century, Finland's isolation required that most farmers concentrate on producing grains to meet the country's basic food needs. In the fall, farmers planted rye; in the spring, southern and central farmers started oats, while northern farmers seeded barley. Farms also grew small quantities of potatoes, other root crops, and legumes. Nevertheless, the total area under cultivation was still small. Cattle grazed in the summer and consumed hay in the winter. Essentially self-sufficient, Finland engaged in very limited agricultural trade.

This traditional, almost autarkic, production pattern shifted sharply during the late nineteenth century, when inexpensive imported grain from Russia and the United States competed effectively with local grain. At the same time, rising domestic and foreign demand for dairy products and the availability of low-cost imported cattle feed made dairy and meat production much more profitable. These changes in market conditions induced Finland's farmers to switch from growing staple grains to producing meat and dairy products, setting a pattern that persisted into the late 1980s.

In response to the agricultural depression of the 1930s, the

government encouraged domestic production by imposing tariffs on agricultural imports. This policy enjoyed some success: the total area under cultivation increased, and farm incomes fell less sharply in Finland than in most other countries. Barriers to grain imports stimulated a return to mixed farming, and by 1938 Finland's farmers were able to meet roughly 90 percent of the domestic demand for grain.

The disruptions caused by the Winter War and the Continuation War caused further food shortages, especially when Finland ceded territory, including about one-tenth of its farmland, to the Soviet Union (see *The Winter War and The Continuation War*, ch. 1). The experiences of the depression and the war years persuaded the Finns to secure independent food supplies to prevent shortages in future conflicts.

After the war, the first challenge was to resettle displaced farmers. Most refugee farmers were given farms that included some buildings and land that had already been in production, but some had to make do with "cold farms," that is, land not in production that usually had to be cleared or drained before crops could be sown. The government sponsored large-scale clearing and draining operations that expanded the area suitable for farming. As a result of the resettlement and land-clearing programs, the area under cultivation expanded by about 450,000 hectares, reaching about 2.4 million hectares by the early 1960s. Finland thus came to farm more land than ever before, an unusual development in a country that was simultaneously experiencing rapid industrial growth.

During this period of expansion, farmers introduced modern production practices. The widespread use of modern inputs—chemical fertilizers and insecticides, agricultural machinery, and improved seed varieties—sharply improved crop yields. Yet the modernization process again made farm production dependent on supplies from abroad, this time on imports of petroleum and fertilizers. By 1984 domestic sources of energy covered only about 20 percent of farm needs, while in 1950 domestic sources had supplied 70 percent of them. In the aftermath of the oil price increases of the early 1970s, farmers began to return to local energy sources such as firewood. The existence of many farms that were too small to allow efficient use of tractors also limited mechanization. Another weak point was the existence of many fields with open drainage ditches needing regular maintenance; in the mid-1980s, experts estimated that half of the cropland needed improved drainage works. At that time, about 1 million hectares had underground drainage, and agricultural authorities planned to help install such works on another million hectares. Despite these shortcomings, Finland's

agriculture was efficient and productive—at least when compared with farming in other European countries.

### ***Farms and Farmers***

Finland's agriculture was based on privately owned family farms. This was especially the case after 1922, when the republic, anxious to reduce rural discontent, implemented the first of a series of land reforms that redistributed land to tenants and to landless farm workers (see *The Establishment of Finnish Democracy*, ch. 1; *Domestic Developments and Foreign Politics, 1948–66*, ch. 1). After World War II, the government resettled some 40,000 farm families displaced from areas occupied by the Soviet Union. The postwar resettlement program also transferred land to farms considered too small for efficient operations, many of which had been set up in the interwar period.

As a result of the resettlement program, Finland was one of the few industrialized countries in which the number of farms increased after 1945; by 1950 there were about 260,000 farms. The number of farms started to decline in the 1960s, however, falling to about 200,000 by 1981. The decrease in the number of farms caused an increase in average farm size, but large farms still remained rare. Thus, in the mid-1980s, about 60 percent of farms covered less than ten hectares, 25 percent included between ten and twenty hectares, and only 15 percent occupied more than twenty hectares. At that time, both large and small farms were disappearing, leaving an increasing number of farms that were between ten and twenty hectares. Observers predicted that this trend was likely to continue.

In the late 1980s, the average farm comprised twelve hectares of arable land and thirty-five hectares of forest. The relative proportions of field holdings to forest holdings varied from region to region; in the south, farmers tended to own more arable land but less forest, while in the north, the reverse was true. Farm families formed the basic production unit. Family members provided about 95 percent of farm labor; wage earners supplied the remainder. Most farms specialized in one or two activities, such as hog production, dairy farming, or grain cultivation. Although in the early postwar years most farms produced some milk, by the early 1980s only one out of three farms did so, and about half of all farms had no farm animals. This tendency toward specialization increased the efficiency of Finland's relatively small production units.

Farm incomes lagged behind those of the total population. For example, according to a 1984 study, the average income of full-time farmers totaled only 70 percent of that of industrial workers. Nevertheless, income disparities between agriculture and other



sectors were probably less severe than these figures indicate because many farm families supplemented their incomes with earnings from forestry and other occupations. In the mid-1980s, only 62 percent of farmers' incomes came from agriculture, while another 26 percent was derived from wages and 12 percent was earned from forestry.

Farmers had a strong tradition of practical and political cooperation. In the late 1980s, some 90 percent of Finnish farmers belonged to agricultural unions, which were divided between those for Finnish speakers and those for Swedish speakers. More than 330,000 union members belonged to 430 Finnish-language locals or to 80 Swedish-language locals. Founded in 1917, the Confederation of Agricultural Producers (Maataloustuottajain Keskusliitto—MTK) served as an umbrella organization for agricultural unions, and it represented farmers in agricultural price negotiations with the government and with other producer groups.

In addition to joining unions that helped influence farm policy, farmers had established cooperative associations that provided farm supplies, shared marketing expenses, and arranged farm financing. The umbrella organization of farm cooperatives was the Pellervo Society, which had more than a million members. Each branch of agriculture organized its own cooperatives to handle sales of farm products and purchases of supplies. Cooperative banks provided about half of all money used to finance farming, and cooperative insurance associations handled farm and crop insurance.

### ***Agricultural Policy***

Finland's agricultural policy has long been inspired by more than purely economic considerations. The need to maintain secure food sources caused the Finns to subsidize uncompetitive grain production rather than to allow further specialization in dairy and meat operations. Social concerns drove policies designed to maintain family farms and to give farmers incomes and working conditions more equal to those of other workers. The desire to maintain settlements in the sparsely populated northern provinces led to heavy subsidies for farmers in those regions. Other goals included stabilizing retail food prices and increasing farm size and efficiency.

In the late 1980s, agricultural policy made involved trade-offs among these partially contradictory objectives. For national security reasons, the government gave priority to ensuring self-sufficiency in basic foodstuffs. But self-sufficiency, like other farm-policy goals, resulted in costly agricultural surpluses that had to be dumped on international markets. Structural reforms, designed to increase farm size, could improve efficiency, strengthen family

farms, and increase farm incomes, but they were difficult to implement.

By the early 1960s, the first goal—self-sufficiency—had been achieved. By the late 1970s, however, surplus production had become a pressing problem. According to government estimates made in the early 1980s, crop productivity would increase by about 1.5 percent per year, and productivity in animal husbandry would increase by about 0.5 percent per year. Because Finland's consumption of agricultural products was stagnant, crop and animal surpluses would therefore continue to grow—unless agricultural prices were reduced.

In the late 1970s, the government stepped up programs designed to encourage farmers to shift production from products in surplus, such as eggs, milk, and meat, to products that replaced imports, such as wheat, sugar, and vegetables. Starting in the mid-1980s, worldwide agricultural surpluses depressed prices and made agricultural exports especially expensive. In response, the government redoubled its efforts to control output and to encourage reforestation of surplus farmland. This policy had begun to make a significant impact by 1987.

Agricultural policy centered on target prices set by the Ministry of Agriculture and Forestry each spring and fall, after negotiations with the MTK. Administered under the periodic farm income acts, which defined general rules for setting farm prices, the negotiations included two phases. In the first phase, farmers received compensation for increases in input costs according to a formula laid out in the applicable Farm Income Act. In the second phase, the negotiations addressed how much farm labor would be paid. In general, farm pay settlements reflected nonagricultural wage agreements, and they were based on estimated hourly wages in agriculture (see Human Resources, this ch.). For example, in the spring of 1986 farmers received no compensation for input costs, which had been stable (largely as a result of falling world energy prices), but they did achieve a 6.1 percent increase in income, much higher than the 2.4 percent agreed to in the 1986 framework agreement for other workers. Observers considered the settlement to have been generous, but perhaps justified, because agriculture remained a low-wage sector.

Once the negotiation process had determined overall farm income, the Ministry of Agriculture and Forestry fixed target prices for individual crops. In response to overproduction problems, the ministry reduced prices for surplus products and required that farmers pay part of the costs of subsidizing exports. Programs to reduce

surpluses by lowering target prices achieved only limited results, however, because increases in productivity often outweighed declines in target prices. The ministry established a dual-price system for milk and eggs, which made production beyond output quotas unprofitable, and implemented a number of voluntary production controls, including contracts to increase fallow land or to limit production of milk, beef, pork, and eggs. In the summer of 1987, the government prohibited clearing fields, introduced measures to encourage reforestation, and began considering heavier taxes on the agricultural earnings of part-time farmers as well as increased pensions for farmers who agreed to retire early.

Subsidies for agricultural consumption were partially effective in increasing demand for surplus products. Health concerns, however, apparently limited consumers' willingness to eat more dairy and meat products. Surplus-reduction measures were having some effect by the late 1980s, but in 1987 farm surpluses remained a serious problem.

Structural reforms also received considerable attention. To slow the growth of large, "industrial" farms, the government required licenses for farms that exceeded certain production levels, hoping that limiting the size of farms would both reduce surpluses and help maintain family farms. The Agricultural Development Fund provided low-interest loans and subsidies for investments in farm infrastructure; most of the loans from this fund went to farmers in northern Finland. Small farmers who wanted to enlarge their farms could also receive low-interest credits. In an effort to keep new farmers from falling into debt, the government also allowed farmers under the age of thirty-five to apply for state grants when they established a farm. Moreover, the state tried to make farming more attractive to young people by providing outside helpers to take over farm operations temporarily. This arrangement facilitated maternity leaves and even annual vacations.

Farmer training programs, crop research, and extension services helped farmers to improve agricultural practices. Local schools provided agricultural training for youths who could later attend specialized schools; university students could major in agriculture. The Ministry of Agriculture and Forestry and the universities undertook research projects that emphasized the development of frost-resistant crop varieties. The ministry also administered extension services that gave technical advice and communicated research findings to farmers. These training and research programs deserved much of the credit for the progress that farmers had achieved during the postwar period.

### ***Farm Production Patterns***

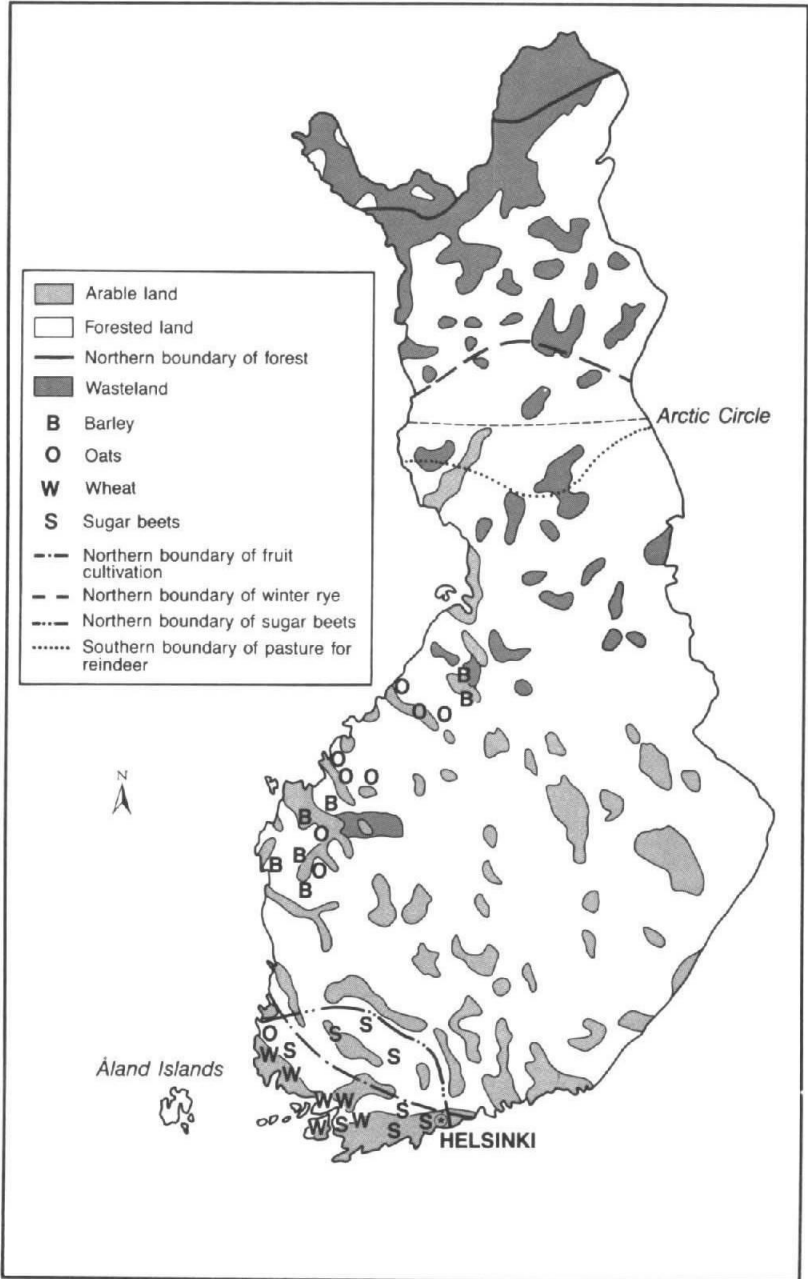
During most of the twentieth century, Finnish farmers have favored raising animals over growing plants for human consumption. These preferences resulted in part from the country's climate and soils, which were more suitable for the production of feed for animals than for the production of crops for human consumption. The small size of many farms also encouraged the emphasis on milk, eggs, and meat; only on a large farm could a family earn sufficient income from less labor-intensive field crops. Thus, in the late 1980s, about 40 percent of farm income came from milk; 30 percent, from meat; 9 percent, from grain; 5 percent, from eggs; and 16 percent, from other products (see table 16, Appendix A).

Regional ecological variations influenced the distribution of agricultural production (see fig. 16). In the southern and western parts of the country, where the climate is more favorable and soils are richer, farmers generally produced grain, poultry, and pigs, while in the north and the east they specialized in hardier root crops and in dairying. It was in the north, too, that the country's 200,000 reindeer, one-third of which were owned by Lapps, were raised.

In the late 1980s, cattle operations remained the mainstay of farming, but Finland's farmers also raised pigs, poultry, and other animals. Most pigs were raised on relatively large, specialized farms. Poultry production increased after the mid-1960s to accommodate an increased demand for meat. A more recent development, a response to the oversupply of traditional animal products, was a shift to fur farming. By the mid-1980s, about 6,000 farms, especially those in Vaasa Province along the coast of the Gulf of Bothnia, were producing a substantial share of the world's mink and fox furs (see fig. 1). The Finns exported most furs, but some were used domestically in luxury clothing.

About 85 percent of Finland's arable land supplied feed for farm animals. Farmers dedicated more than 30 percent of their land to hay, silage crops, and pasture (see table 17, Appendix A). Grains, the most important field crop, took up slightly more than half the country's arable land. The most widely planted grain crops—barley and oats—were used primarily to feed livestock. Rutabagas and mangels, particularly hardy root crops, also served as animal feed.

Despite the emphasis on producing feed for livestock, the Finns made substantial efforts to ensure supplies of basic human foodstuffs. By the 1980s, the annual wheat and rye crops, used for making bread, met domestic demand in years with normal harvests. Potatoes produced high yields even in the north, and the potato crop was usually large enough for domestic needs. Domestic



Source: Based on information from Federal Republic of Germany, Statistisches, Bundesamt, *Länderbericht Finnland 1986*, Wiesbaden, 1986, 9

*Figure 16. Agriculture and Forestry, 1985*

sugar beets provided about half of the sugar consumed in the country. Some farmers, especially those with small holdings near large cities, specialized in growing vegetables; they managed to raise as much as 80 percent of the vegetables consumed in Finland.

## **Forestry**

Forests played a key role in the country's economy, making it one of the world's leading wood producers and providing raw materials at competitive prices for the crucial wood-processing industries. As in agriculture, the government had long played a leading role in forestry, regulating tree cutting, sponsoring technical improvements, and establishing long-term plans to ensure that the country's forests would continue to supply the wood-processing industries.

Finland's wet climate and rocky soils are ideal for forests. Tree stands do well throughout the country, except in some areas north of the Arctic Circle. In 1980 the forested area totaled about 19.8 million hectares, providing 4 hectares of forest per capita—far above the European average of about 0.5 hectares. The proportion of forest land varied considerably from region to region. In the central lake plateau and in the eastern and northern provinces, forests covered up to 80 percent of the land area, but in areas with better conditions for agriculture, especially in the southwest, forests accounted for only 50 to 60 percent of the territory. The main commercial tree species—pine, spruce, and birch—supplied raw material to the sawmill, pulp, and paper industries. The forests also produced sizable aspen and elder crops.

The heavy winter snows and the network of waterways were used to move logs to the mills (see fig. 8). Loggers were able to drag cut trees over the winter snow to the roads or water bodies. In the southwest, the sledding season lasted about 100 days per year; the season was even longer to the north and the east. The country's network of lakes and rivers facilitated log floating, a cheap and rapid means of transport. Each spring, crews floated the logs downstream to collection points; tugs towed log bundles down rivers and across lakes to processing centers. The waterway system covered much of the country, and by the 1980s Finland had extended roadways and railroads to areas not served by waterways, effectively opening up all of the country's forest reserves to commercial use.

Forestry and farming were closely linked. During the twentieth century, government land redistribution programs had made forest ownership widespread, allotting forestland to most farms (see Agriculture, this ch.; *The Establishment of Finnish Democracy*, ch. 1; *Domestic Developments and Foreign Politics, 1948–66*,

ch. 1). In the 1980s, private farmers controlled 35 percent of the country's forests; other persons held 27 percent; the government, 24 percent; private corporations, 9 percent; and municipalities and other public bodies, 5 percent. The forestlands owned by farmers and by other people—some 350,000 plots—were the best, producing 75 to 80 percent of the wood consumed by industry; the state owned much of the poorer land, especially that in the north.

The ties between forestry and farming were mutually beneficial. Farmers supplemented their incomes with earnings from selling their wood, caring for forests, or logging; forestry made many otherwise marginal farms viable. At the same time, farming communities maintained roads and other infrastructure in rural areas, and they provided workers for forest operations. Indeed, without the farming communities in sparsely populated areas, it would have been much more difficult to continue intensive logging operations and reforestation in many prime forest areas.

Finland's government monitored and influenced all aspects of forestry. The Ministry of Agriculture and Forestry was responsible for preparing and implementing forestry legislation. Subordinate to the ministry, the National Board of Forestry supervised private forests and managed state-owned forests. The national board also maintained liaison with the two central forestry boards, which in turn controlled a total of nineteen district forestry boards. The central and the district boards were self-governing bodies comprising representatives of the forest owners, wood-processing industries, and forestry workers. The boards supervised forest operations, often working in cooperation with the local forest management associations, which were entirely controlled and financed by forest owners.

The ministry carried out forest inventories and drew up silvicultural plans. According to surveys, between 1945 and the late 1970s foresters had cut trees faster than the forests could regenerate them. Nevertheless, between the early 1950s and 1981, Finland was able to boost the total area of its forests by some 2.7 million hectares and to increase forest stands under 40 years of age by some 3.2 million hectares. Beginning in 1965, the country instituted plans that called for expanding forest cultivation, draining peatland and waterlogged areas, and replacing slow-growing trees with faster-growing varieties. By the mid-1980s, the Finns had drained 5.5 million hectares, fertilized 2.8 million hectares, and cultivated 3.6 million hectares. Thinning increased the share of trees that would produce suitable lumber, while improved tree varieties increased productivity by as much as 30 percent.

Comprehensive silvicultural programs had made it possible for the Finns simultaneously to increase forest output and to add to

*Transporting logs from  
forest to factory*  
*Courtesy Embassy of Finland,  
Washington*



the amount and value of the growing stock. By the mid-1980s, Finland's forests produced nearly 70 million cubic meters of new wood each year, considerably more than was being cut. During the postwar period, the annual cut increased by about 120 percent to about 50 million cubic meters. Wood burning fell to one-fifth the level of the immediate postwar years, freeing up wood supplies for the wood-processing industries, which consumed between 40 million and 45 million cubic meters per year. Indeed, industry demand was so great that Finland needed to import 5 million to 6 million cubic meters of wood each year.

To maintain the country's comparative advantage in forest products, Finnish authorities moved to raise lumber output toward the country's ecological limits. In 1984 the government published the Forest 2000 plan, drawn up by the Ministry of Agriculture and Forestry. The plan aimed at increasing forest harvests by about 3 percent per year, while conserving forestland for recreation and other uses. It also called for enlarging the average size of private forest holdings, increasing the area used for forests, and extending forest cultivation and thinning. If successful, the plan would make it possible to raise wood deliveries by roughly one-third by the end of the twentieth century. Finnish officials believed that such growth was necessary if Finland was to maintain its share in world markets for wood and paper products (see Wood-Processing Industries, this ch.).



## **Fisheries**

Unlike other Nordic countries, in the late 1980s Finland had few fishermen, and the fishing industry was small. Finland's coastal waters offered poor fishing grounds because of their low salt content (caused by the heavy flow from the country's many rivers). Rivers and lakes were often relatively unproductive because stream runoff often contained insufficient nutrients. In addition, those inland waterways that did support exploitable fish populations were often located too far from market centers to make commercial fishing profitable. Log-floating operations and hydroelectric installations disrupted some fishing grounds, and the paper industry polluted others.

The poverty of Finland's waters explained why, despite considerable government aid, relatively few Finns were fishermen. In 1985, for example, only 2,200 fishermen worked full-time, while another 5,000 worked part-time; they used a fleet of about 530 boats. That same year, the fish catch totaled some 111,000 tons, of which roughly two-thirds were salt-water fish, and one-third were fresh-water fish. Baltic herring was the most valuable catch, followed by salmon. A share of the catch came from Soviet and Swedish waters, to which Finland had gained access under bilateral agreements.

Unable to meet domestic demand, Finland had to import about 300,000 tons of fish each year, including large amounts of fish offal that was used as feed on fur farms. Demand for fish was thus relatively strong, but observers believed that, given the country's poor fisheries, it was likely that the small fishing industry would become even smaller.

## **Energy and Mineral Resources**

Finland lacked petroleum, gas, and coal reserves, but it had significant mineral deposits. As in many industrial countries, low-cost imported petroleum fueled economic growth from the end of World War II until the 1973 oil crisis. Finland's forest industries, which were heavy energy users, had developed in the context of low energy prices. Even the achievement of agricultural self-sufficiency owed much to energy imports, in the form of either fuel for tractors or chemical fertilizers. From the 1970s, Finland's economy had to adjust to high energy costs. Finnish policy makers therefore had to ensure that the country used its other resources, including its mineral deposits, as efficiently as possible.

## **Energy**

Even before the 1973 oil crisis, energy was a major concern, and



*Pyhäkoski hydroelectric power plant, one of the largest of its kind in Finland, located about twenty-five kilometers east of Oulu  
Courtesy Embassy of Finland, Washington*

Finland had started energy-saving programs meant to cut dependence on imports and to maintain export competitiveness. Nevertheless, the country had one of the world's highest per capita rates of energy consumption. The cold climate required that the Finns expend about a quarter of their energy supply for space heating, while the relatively long distances separating Finland's settlements required heavy fuel use for transportation. The importance of energy-intensive processing industries, including not only the lumber, pulp, and paper sectors but also the minerals and basic metals sectors, further expanded the country's energy needs. In the late 1980s, Finland consumed about 30 million tons of oil equivalent per year, distributed among solid fuels (15 percent), liquid fuels (40 percent), and electricity (45 percent), which put annual per capita consumption at 0.6 tons of oil equivalent—about 50 percent higher than per capita consumption in the United States.

Domestic sources could cover only about 30 percent of total energy demand, and imported energy supplied the remainder. In 1986 the government estimated that, even assuming continued efforts at conservation, energy demand would grow by at least 1 percent per year during the 1990s and that demand for electricity would grow even faster. By the late 1980s, policy makers faced important choices in their efforts to maintain secure supplies of electricity

and other forms of energy. Four major goals governed policy decisions: increasing the use of domestic energy sources, providing for possible import shortages, expanding electricity production, and improving conservation programs.

The state played a strong role in energy management. The government used state-owned energy enterprises and price controls to influence both production and consumption. The state owned the most important energy supply enterprises, including Imatran Voima, the largest electricity producer, which managed the national electricity distribution grid; Kemijoki, a hydropower concern; Neste, which controlled the import, refining, and distribution of petroleum and natural gas; and Vapo, a producer and distributor of peat and other domestic fuels. Another major policy tool was the control of energy prices, either directly or by means of taxes and tariffs.

Finland's main domestic energy sources were hydroelectric power, peat, and wood. By the late 1980s, the country's large hydroelectric potential had been thoroughly tapped, except possibly for the rivers protected by environmental legislation. Nevertheless, hydroelectric production could still be increased by renovating existing installations and by building additional plants at secondary sites. Encouraged by investment subsidies and by the results of state-funded research, Finland had begun systematic exploitation of its peat reserves. Peatlands covered more than one-third of Finland's surface area, but in the mid-1980s only about 5 percent of this area was being used. The government hoped to more than double peat output by the year 2000. Wood was widely used for heating in rural areas, especially after the oil price increases of the 1970s; it was even more important for the forest industries, which used waste wood to supply about 60 percent of their energy needs.

Despite increased use of domestic energy sources, the economy depended on imports of petroleum, coal, natural gas, uranium, and electricity. Observers expected that this dependence would get worse in the 1990s and beyond as consumption increased. Moreover, the fall in world petroleum prices, starting in the early and mid-1980s, had made oil imports more competitive and thus might delay investments in domestic energy sources.

The Soviet Union was traditionally Finland's main energy supplier, providing petroleum, natural gas, electricity, uranium, and even nuclear fuel reprocessing services. Energy products played an important role in Finnish-Soviet trade, accounting for about 80 percent of Soviet exports to Finland. The decline in world petroleum prices in the 1980s meant that Finland had to increase

the volume of petroleum imports from the Soviet Union in order to maintain the level of sales to the Soviet market. To respond to the resulting oversupply of crude petroleum, Neste began refining oil for export (see Regional Economic Integration, this ch.). Finland's imports of Soviet natural gas transited a pipeline to the southeastern part of the country, with branches leading to the Helsinki and the Tampere areas. In the late 1980s, Finland participated in discussions regarding the construction of a Nordic gas pipeline network that was designed primarily to transport Soviet gas to other Nordic countries but that might also carry Norwegian gas to Finland.

The Finns reduced their dependence on Soviet energy by patronizing other suppliers. For example, during the late 1980s, the Finns began importing coal not only from Poland and the Soviet Union but also from the United States, Colombia, and Australia. Coal imports had declined in the late 1970s as a result of rapid increases in the generation of electricity from nuclear plants, but they rose again by the mid-1980s to some 5 million tons per year. Finland also purchased electricity from Sweden, and the Finns were interested in finding other sources for electricity imports.

To reduce further their vulnerability to cutoffs of foreign energy supplies, the Finns also undertook an energy stockpiling program. Informed observers believed that the country maintained stocks sufficient to supply it for six months, which compared favorably with stockpiles held by other industrial countries.

Experts predicted that Finland would face an electricity shortage by the mid-1990s, unless additional generating capacity came into operation by then. Electricity consumption had grown faster than energy use as a whole during the 1980s, largely because more and more households had switched to electric heating. In the late 1980s, most observers expected that demand would rise by 2 to 3 percent per year until the year 2000. Finland's growing needs for electric power spurred attempts to increase domestic generating capacity, which in early 1986 had reached 10,700 megawatts. In the late 1980s, hydroelectric plants supplied approximately 30 percent of total electric power. Finland produced about 41 percent of its electricity at four nuclear power plants built between 1977 and 1980: two Swedish-made, 660-megawatt, boiling-water reactors on the island of Olkiluoto; and two Soviet-made, 440-megawatt, pressurized-water reactors at Loviisa. Conventional thermal plants accounted for another 22 percent of electricity production, and imports from neighbors covered the remaining 6 percent.

In early 1986, the Ministry of Trade and Industry prepared a plan for the 1990s that called for increasing installed electrical

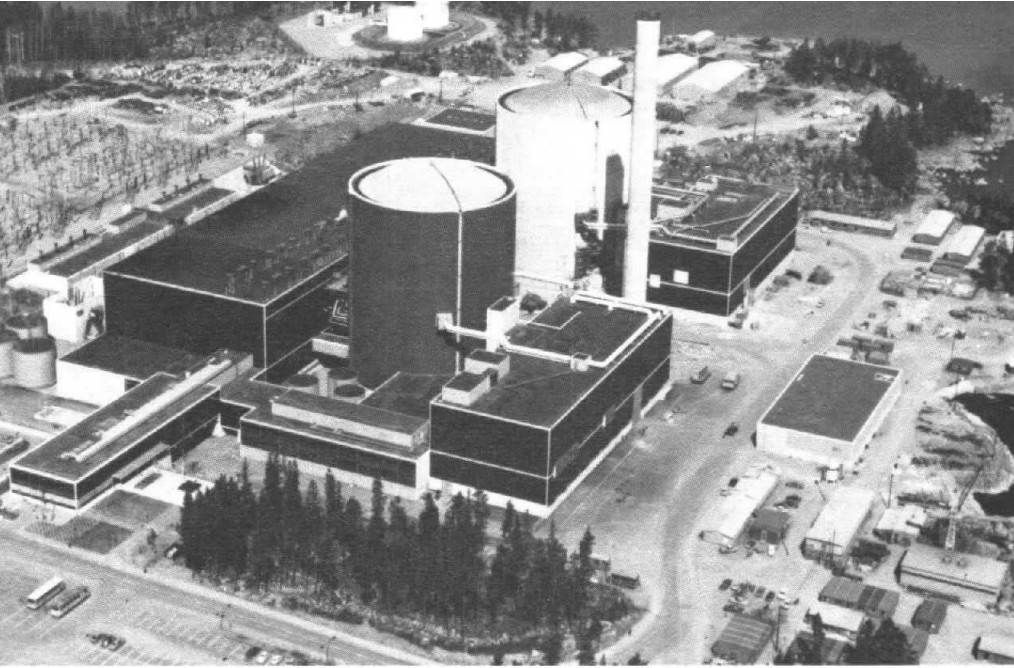
capacity by about 2,700 megawatts by the year 2000. About 1,200 megawatts of the new capacity was to come from small plants scattered around the country. Another 1,500 megawatts would have to come from large plants—peat-fired, coal-fired, and nuclear. According to the plan, Finland could either import another 500 megawatts from the Soviet Union or further expand nuclear capacity.

In the spring of 1986, the Eduskunta almost approved the plan, including the construction of a fifth nuclear plant. Public reaction to the nuclear disaster at Chernobyl in the Soviet Union froze consideration of nuclear power, however, and induced a complete review of energy policy. Public pressure caused the government to replace the proposed plant with coal-fired plants. Despite this setback to the nuclear industry, informed observers believed it probable that Finland would increase its nuclear capacity in the 1990s, once public opposition had died down.

Since the 1970s, the government has made considerable efforts to spur energy conservation. Domestic energy prices have been maintained at realistic levels—gasoline prices were among the highest in all European countries—encouraging the public to conserve. The government raised energy efficiency standards for home construction and renovation, cutting energy use for heating by 30 to 40 percent over a decade. Finland pioneered the development of district heating, which used otherwise-wasted energy from power plants. Observers predicted that this efficient source of domestic heat would supply half the country's homes by the year 2000. Environmentalists believed that further energy savings could be achieved that would reduce the need for building more power plants, but mainstream opinion supported continued increases in energy production to support economic growth. Yet no matter how much Finland conserved, the country would still need to import large amounts of energy and would face difficult trade-offs between the benefits and the risks and costs of various energy options.

## **Minerals**

Finland contained only limited mineral deposits, and it continued to be only a modest producer of minerals. The country's most important deposits were located at Outokumpu in eastern Finland (see fig. 17). Discovered in 1910, the Outokumpu area contained commercially exploitable deposits of copper, iron, sulfur, zinc, cobalt, nickel, gold, and silver. In 1953 prospectors discovered a major source of iron ore at Otanmäki in central Finland. Other sites yielded nonmetallic minerals, including pyrites and apatite (a low-grade phosphoric ore used for fertilizer production), and



*Nuclear power plant at Loviisa (Lovisa) on the southern coast, about seventy-five kilometers east of Helsinki  
Courtesy Embassy of Finland, Washington*

stone for building. The mineral industry employed more than 60,000 people, but only 500 of them were in mining and quarrying; the others worked in mineral processing.

The government intervened directly in the mineral sector. Under Finnish law, the Ministry of Trade and Industry controlled prospecting and mining rights. The ministry's Geological Survey dominated prospecting, and it had made most major mineral discoveries. The ministry controlled most production through joint-stock companies, in which the state owned most or all of the shares, but in which the management ran the companies much like private firms. The industry comprised two large, state-controlled companies, the Outokumpu Group and Rautaruukki, and a number of smaller, generally private companies. The Outokumpu Group, by far the largest producer, operated the Outokumpu mines, as well as others producing cadmium, chromite, ferrochrome, mercury, pyrite, and zinc. The company also invested in foreign mines and produced mining equipment. Rautaruukki controlled the Otanmäki iron mine, other mines producing cobalt, quartz, and vanadium, and Finland's largest steel plant.

By the mid-1980s, Finland had exploited most of its limited mineral deposits and had to work hard to supply its processing industries. The Geological Survey had undertaken an extensive

exploration program to find new resources. Finnish firms had purchased interests in mineral operations in other Scandinavian countries, and they had participated in joint ventures with Soviet enterprises to exploit the rich mineral deposits on the Kola Peninsula. The leading companies had also developed vertically integrated structures, investing in all stages of metal production from the design and production of mining equipment to metal processing. The Outokumpu Group, for example, was one of the few firms in the world that controlled all aspects of the production of stainless steel. Industry leaders hoped that, as mining output fell during the later years of the twentieth century, overseas investments and vertical integration would make it possible to maintain employment despite the exhaustion of domestic mineral resources.

## **Industry**

Although industrial development began later in Finland than it did in many other European countries, by the 1950s manufacturing and processing had replaced agriculture and forestry as the leading sectors of the economy. By the late 1970s, the service sector had surpassed industry in total production and employment, but industry remained the main export earner, allowing the country to pay for needed imports of energy and raw materials. Labor efficiency was greater in industry than it was in the economy as a whole—the one-third of the work force employed in industry produced about 40 percent of GDP—and it continued to grow at a higher rate here than it did in other sectors. In turn, industrial wages tended to be higher and to rise faster than the national average, making industrial jobs attractive. Thus, although some observers categorized Finland as a postindustrial society, the Finns strove to maintain industrial competitiveness, which they saw as the foundation for their high standard of living. By the early 1980s, however, as a result of the oil crises of the 1970s and the increased competition in world markets for manufactured goods, Finnish industry faced serious challenges. Many observers argued that to maintain industrial exports, the Finns would have to shift from heavy industry to high-technology products.

The geographical distribution of industry had been strongly influenced by the relative shortage of raw materials (other than lumber) and by the small size of the domestic market. The wood-processing industries had grown up on rivers near the coast of the Gulf of Bothnia and the Gulf of Finland, in locations that offered sources of both lumber and hydroelectric power as well as access to foreign markets. As many raw materials were imported and most industrial production was exported, other industries had grown

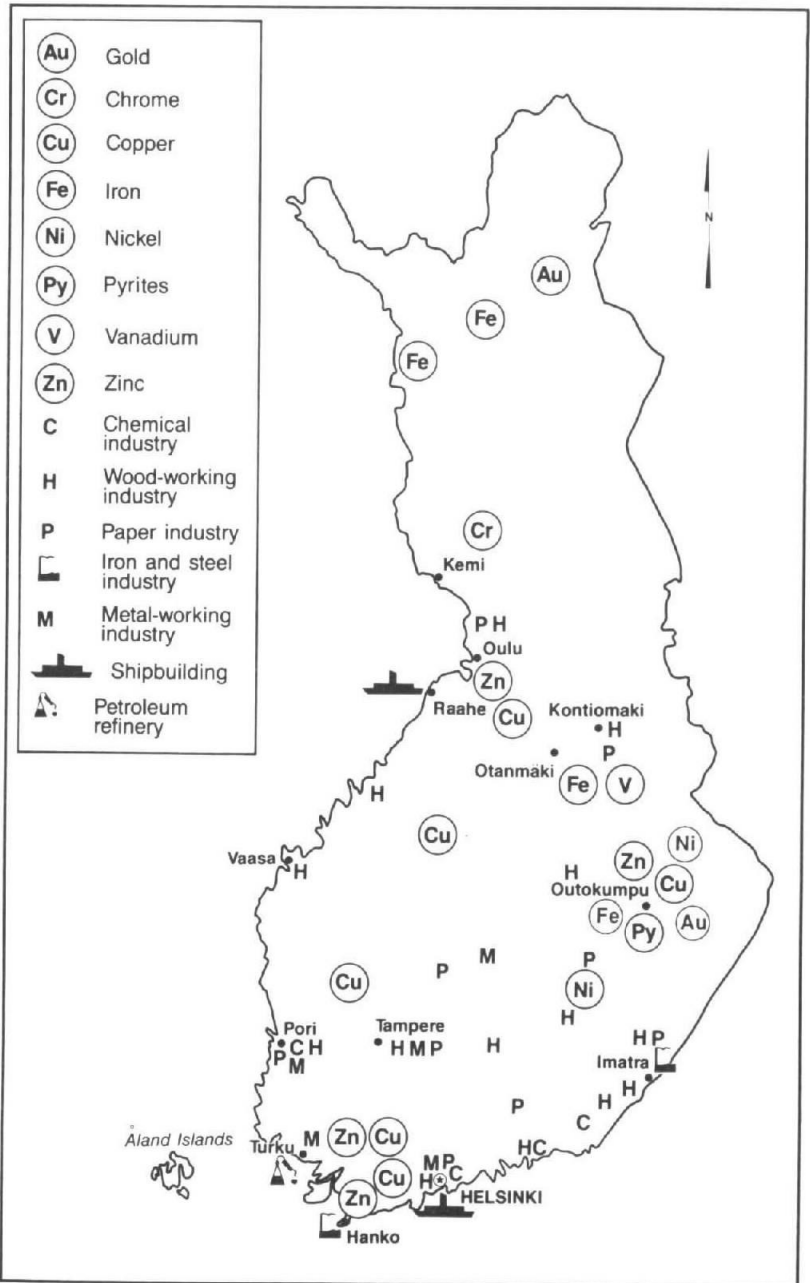
up in the four southern provinces, especially near Finland's main harbors along the southern coast. Although the government had implemented policies that favored development in the north during the postwar period, in the late 1980s more than 70 percent of industrial jobs were still located in the south. In the long run, the development of high-technology industries, less dependent on transportation and energy supplies, might facilitate efforts to decentralize industry, but such development would be gradual.

Once dominated by the forest industries, Finnish industry underwent rapid structural change after World War II. A boom in metalworking began in the immediate postwar years in response to the need to ship capital goods, including machine tools, ships, rolling stock, and chemicals, to the Soviet Union (see *The Effects of the War*, ch. 1). By the mid-1950s, heavy industry had taken over the leading role traditionally held by wood products. Beginning in 1957, Finland began to liberalize its trade policies, forcing domestic industry to compete in world markets and bringing new industries to the fore, especially metalworking and engineering, but also petroleum refining, chemicals, plastics, and high-technology goods (see table 18, Appendix A).

Guided by domestic and foreign tastes and by fierce international competition, industrial firms had developed a wide range of products and had maintained quality standards that were often higher than those typical of industry in the United States. Aware of the relatively small size of their industry, industrial leaders and government officials aimed successfully for technological leadership in narrowly defined subsectors in which Finland enjoyed comparative advantages. Since the 1950s, Finnish firms have been able to dominate world markets for products such as icebreakers, wood-processing and paper-processing machinery, and environmental protection equipment. Buyers of such products were often less sensitive to price increases than they were to technical innovations, quality, and durability. At the same time, Finland had avoided some of the structural weaknesses, such as excessive investments in declining product lines, that plagued the other Nordic economies.

Finland's industrial structure traditionally was polarized between large and small firms. In the early 1980s, the vast majority of Finland's 15,000 industrial firms each employed fewer than 100 people. These small firms accounted for only about one-fifth of the industrial work force and for slightly more than one-fifth of the value of industrial output. The approximately 130 firms that employed more than 500 people apiece commanded about 60 percent of the labor force and produced about two-thirds of industrial output. During the mid-1980s and the late 1980s, a wave of





Source: Based on information from Federal Republic of Germany, Statistisches Bundesamt, *Länderbericht Finnland, 1986*, Wiesbaden, 1986, 9.

*Figure 17. Minerals and Industries, 1985*

mergers further reduced the market share of small firms. Although industry was thus quite concentrated, the flexibility and innovativeness of small firms had often proven crucial, and observers believed that small firms would continue to serve important entrepreneurial functions.

Despite many notable successes, industry faced new difficulties in the 1970s and the 1980s, in addition to increases in world energy prices. By the late 1970s, industrial firms faced tougher foreign competition and had to scramble to maintain their shares of export markets. To ensure competitiveness, industry needed to renovate existing plants and to increase sharply investments in high-technology product lines that could supplement traditional specialties.

Industrial capital formation was a major priority. Although Finland's relatively recent industrial development meant that many industrial facilities were still relatively new and efficient, the drive to develop high-technology production required massive investments. Industrial firms carried a debt load that averaged about 80 percent of total assets, making further investment difficult. In the late 1980s, however, a number of developments promised to improve industrial financing. Helsinki's financial markets were becoming more innovative, and informed observers expected that the state would cut taxes on corporate profits, would eliminate taxes on industrial energy consumption, and would increase tax credits offered for research and development expenditures (see *Banking and Finance*, this ch.). Despite these positive developments, however, industry needed to attract more resources from abroad if it were to remain competitive in world markets.

Finland's industry had long depended on world markets, but until the 1980s direct foreign investment in Finland had played only a minor role. The country hosted significantly fewer foreign firms than its Nordic neighbors, partly as a result of limitations on foreign ownership of Finnish assets. Such regulations had been relaxed after 1980, but foreign firms still controlled only about 5 percent of industrial capacity. Finnish firms likewise began to invest abroad in the 1970s. Thus, whereas in 1970 only 5 Finnish firms had invested in the United States, by 1987 about 250 had done so. By the late 1980s, internationalization had begun to supplant the traditional strategy of specialization, as more and more firms entered joint ventures with foreign partners and built plants in countries to which they exported. The trend toward internationalization offered the prospect that Finland would be able to attract additional capital and up-to-date technologies.