ETLA ELINKEINOELÄMÄN TUTKIMUSLAITOS
THE RESEARCH INSTITUTE OF THE FINNISH ECONOMY
Lönnrotinkatu 4 B 00120 Helsinki Finland Tel. 609 900 Telefax 601753

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Kari Alho*

AN ASSESSMENT OF THE ECONOMIC CONSEQUENCES OF EC ENLARGEMENT: THE CASE OF FINLAND

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ABSTRACT: The aim of this paper is to evaluate the economic consequences related to Finland's joining the EC. The paper first summarizes the main findings and estimates reached in an earlier ETLA study, Alho-Kotilainen-Widgrén (1992). Then three areas where EC membership will have a major impact are evaluated in more depth. First, the sheltered sector operations are examined and the potential for a larger welfare gain if the current distortions in the goods and labour market can be alleviated through EC membership. In agriculture an analysis on the effects of reduced producer prices is carried out based on the unutilized scale economies prevailing currently in Finnish agriculture. As a final item, participation in the EMU is considered.

KEY WORDS: EC, Finland EFTA

SUMMARY

The aim of this paper is to analyse the economic consequences which membership in the EC would entail for the EFTA applicant countries. In particular, the effects on the Finnish economy are discussed and evaluated based on a recent study on this subject carried out at ETLA, Alho-Kotilainen-Widgrén (1992). The main finding of this study was that Finland stands up to reap a sizeable long-term welfare gain from EC membership. But in order to exploit this opportunity, a marked capacity and willingness to adjust is required as some changes are going to be of the inter-industry type. The long-run welfare gain was estimated to be on the order of 4 per cent in relation to GDP.

The paper was presented in May 1993 at the seminar "Expanding European Regionalism: The EC's New Members", organised by CEPR and the Yrjö Jahnsson Foundation and will be published in the book of the seminar proceedings, edited by Richard Baldwin, Pertti Haaparanta and Jaakko Kiander, Cambridge University Press 1994. The study is a part of ETLA's research programme on European integration which currently focuses mainly on the consequences of a Finnish membership in the EC:

In their economies, the EFTA countries have displayed both an outward orientation and domestic protectionism. In the small EFTA countries there is a great deal of social cohesion, centralised interest organisations and pressure groups covering the whole society, as well as reliance on collective consensus types of agreements between the government, trade unions, employers organisations and the farmers. Accordingly, we can characterise this kind of society as one of economy-wide rent sharing where centralised structures and also inefficiencies are accepted and preserved through extensive networks of bargaining and safeguarding of prevailing positions.

The possibilities to continue this kind of rent sharing arrangements were effectively weakened by the course of events in the 1980's as the world-wide wave of liberalisation of foreign capital flows and domestic credit markets integrated the EFTA countries with the world capital markets and the efficiency of the use of capital was strongly enhanced.

As a further stage of integration, membership in the EC will entail changes in external conditions of the economy, such as reduced foreign trade barriers, but the most marked change caused by membership is that new fields of the economy are going to be integrated into the international economy. The scope of the present EC-EFTA integration has been limited to free trade in manufacturing. Accordingly, agriculture, which the EFTA countries in general pursue quite extensively under fairly harsh climatic conditions, has remained outside the realm of the integration process, as have also been the service industries or the sheltered (nontradable) sector. Given the above non-competitive structures, an essential question is, to what degree would EC membership entail a shift from "a rent sharing equilibrium to a more competitive one", as EC membership could result in changes in the domestic economy by spurring increases in efficiency and in alleviating indirectly the burden of distortions caused by the existing monopolistic structures.

The paper gives a concise summary of the channels and estimates of the effects of EC membership on Finland reached in the ETLA study. Secondly, some analytical issues

related to the consequences of membership and the adjacent adjustment problems are discussed outside the scope of the ETLA study. The three most important areas, sheltered sector restructuring, participation in the EC agricultural policy and participation in the EMU, are evaluated in more detail.

The paper analyses Finnish agriculture in terms of unutilized scale economies. If a more efficient internal allocation of resources could be reached by transforming the industry into a bigger farming units simultaneously as Finland enters the Community, more sizeable welfare gains are to be expected than if the present farming situation is preserved. The paper finds that in the former case the agricultural output need not be reduced much - in fact, it can even expand - while on the other hand the release of the labour force is more pronounced.

The main impacts in new fields of the economy included in the integration process involve changes of the inter-industry type. Adjustment to them will not be easy and may create social problems as the EC membership is aimed to be a Pareto-type of welfare improvement for the society at large. A conflict between "EC winners" and "losers" can emerge, so that policy-making based on national homogeneity would be hard pressed to reconcile.

If the Nordic countries are going to preserve their own social model, this should be arranged in a costless way with respect to their participation in integration and, accordingly, the labour market should be transformed into a more competitive one. However, if the degree of labour mobility will not remain as small as it has been, a new pressure of adjustment arises.

The access of Finland and other EFTA countries to the EC would likely resolve the "influence deficit" of these countries in European - and their own - affairs prevailing under the European Economic Area (EEA). The final social assessment of the diverse goals of sovereignty and autonomous social management, on the one hand, and the gains from European-level cooperation, on the other, have not yet been settled in the EFTA countries and are finally to be resolved in referendums after the negotiation stage.

TIIVISTELMÄ

Tämä tutkimus esitettiin Yrjö Jahnssonin säätiön ja lontoolaisen CEPR-tutkimusinstituution (Center for Economic Policy Research) EY:n laajenemista koskeneessa seminaarissa, joka pidettiin Sannäsissa toukokuussa 1993. Seminaarissa esitetyt tutkimukset tullaan julkaisemaan vuonna 1994 Cambridge University Pressin kustantamana kirjana.

Tämä tutkimus on osa ETLAn integraatiotutkimuksen ohjelmaa, jossa pääpaino on Suomen EY-jäsenyyden vaikutusten selvittämisessä.

Tutkimuksen tavoitteena on suppeasti käsitellä EFTA-maiden, erityisesti Suomen mahdollisen EY-jäsenyyden seurauksia. Tässä tutkimus tukeutuu ETLAssa laadittuun EY-jäsenyyttä selvittäneeseen laajaan tutkimukseen Alho-Kotilainen-Widgren (1992). Tutkimus tiivistää mainitun tutkimuksen perustulokset ja sisältää myös syventäviä tarkasteluja ao. tutkimuksen ulkopuolella.

Näitä lisätarkasteluja on ensinnäkin keskustelu suljetun sektorin rakennemuutoksesta ja sen aiheuttamista hyödyistä Suomelle. Esille tuodaan mahdollisuus, että EY-jäsenyys tuo enemmän hyötyä silloin, jos otetaan huomioon mahdollisuus, että jäsenyys vähentää kansantaloudessa vallitsevien vinoutumien tehottomuuden kustannusta. Näitä ovat monopolisoituminen erityisesti suljetun sektorin toiminnoissa, maataloudessa ja työmarkkinoilla.

Jos ammattiyhdistysliikkeen monopolistinen käyttäytyminen on johtanut siihen, että maatalouden kalliita kotimaisia kustannuksia ja hintoja on työnnetty eteenpäin yritysten kustannuksiksi, tästä on aiheutunut tehottomuustappiota, joita EY jäsenyys voi lievittää. Näin tapahtuu sitä kautta, että maatalouden hintojen aletessa EY-jäsenyydessä ay-liike alentaa palkkavaatimuksiaan (niiden kasvunopeutta).

Edelleen tutkimus käsittelee maatalouden sopeutumista uudella tavalla. Kun EY-jäsenyys alentaa tuottajahintoja noin kolmanneksella nykyisestä, osa tiloista tulee kannattamattomiksi. Kuitenkin Suomen maataloudessa on nykyisin käyttämättä suurtuotannon etuja. Niitä hyödyntämällä voidaan tilojen yhdistämisin päästä tilanteeseen, jossa tuotanto ei alene olennaisesti, mutta maatalouden työvoima ja tilojen lukumäärä supistuu voimakkaasti. Näin ollen jos EY-jäsenyyteen astuttaessa kyetään samanaikaisesti hyödyntämään olemassaolevaa tehostamisen potentiaalia ja eliminoimaan tehottomuutta, seurauksena on varsin suuria hyvinvointihyötyjä koko taloudessa, mutta pienempi maatalouteen jäävä työvoima.

Lisäksi tarkastellaan suppeasti Suomen jäsenyyttä mahdollisessa EY:n talous- ja rahaliitossa (EMU) ja tähän liittyviä ongelmia. Jos ja kun valuuttakurssipolitiikka jää pois talouspolitiikan keinovalikoimasta, paine saavuttaa vastaava reaalipalkkojen jousto työmarkkinasopeutuksen keinoin kasvaa.

Expanding European Regionalism: The EC's New Members

Ed. by Richard Baldwin, Pertti Haaparanta and Jaakko Kiander

CEPR, Yrjö Jahnsson Foundation and Cambridge University Press

Kari Alho

ETLA, The Research Institute of the Finnish Economy

An Assessment of the Economic Consequences of EC Enlargement: The Case of Finland

1. Introduction

As exports to the EC make up 60 per cent of their total exports, the EFTA countries felt that the internal market programme of the EC launched in the mid-1980s could pose a severe threat to them in the form of trade diversion. This urged the EFTA countries to reach an agreement on the European Economic Area (EEA), put at last after many turns into effect late 1993. In effect, the EC internal markets are enlarged to encompass the EFTA countries as well, but with the exclusion of Switzerland. There is also a side payment of some 500 million ECUs to an EC cohesion fund and adoption by the EFTA countries of the Community legislation relevant to the internal markets.

During the EEA process, the end of the East-West confrontation in Europe sparked off a new political orientation in the EFTA countries, most of which have traditionally pursued neutrality in their foreign policies. Simultaneously, the EFTA countries started to feel that under the EEA they would only have a rather limited power to influence international cooperation and decision-making, which is all the more vital to them because of, i.a., the increased mobility of factors of production. The reduced risks in foreign policy and overcoming this "influence deficit" have been decisive factors behind the application for full membership in the EC by Austria, Sweden, Finland and

Norway.

In their economies, the EFTA countries have displayed both an outward orientation and domestic protectionism. In the small EFTA countries there is a great deal of social cohesion, centralized interest organizations and pressure groups covering the whole society, as well as reliance on collective consensus type of agreement between the government, trade unions, employers organizations and the farmers. Accordingly, we can characterize this kind of society as one of economy-wide rent sharing where centralized structures and also inefficiencies are accepted and preserved through extensive networks of bargaining and safeguarding of prevailing positions.

The unions, backed by the highest rates of organized labour in the world, have reaped a part of the company profits and tried to pass along the burden of the high agricultural prices by collective wage agreements. Farmers have been extended the same level of income as in corresponding occupations elsewhere in the economy, apart from the existing productivity gap, through means of price support schemes, coupled with import barriers, among the highest in the world. The employers have not been able to effectively resist the union pressures as high employment has prevailed until recent years. Company profitability has been preserved in recessions through accommodative governmental policies resolving the conflict between open sector growth possibilities and the wage rigidity by means of inflationary exchange rate policies.[1]

The possibilities to continue this kind of rent sharing arrangements were effectively weakened by the course of events in the 1980's as the worldwide wave of liberalization of foreign capital flows and domestic credit markets integrated the EFTA countries with the world capital markets and the efficiency of the use of capital was strongly enhanced. Internationalization of firms with marked outward investment, especially into the EC, took place to such an extent that it has formed a threat to the home economy's industrial base and capital accumulation. The mood of intermediate-run

non-accommodating stable currency and competition enhancing policies spread also here from abroad. As the labour force in EFTA countries is highly skilled, and at the same time the income differentials are normally smaller than in the EC countries, free mobility of the labour force, especially that of the highly educated specialists, poses a future threat for the EFTA countries. These factors have paved the way for a participation in arrangements requiring, as a counterpart to increased political influence, commitment to economic structures challenging also some of the established protected positions of the various interest groups.

As a further stage of integration, a membership in the EC will entail changes in external conditions of the economy, such as reduced foreign trade barriers, but the most marked change caused by a membership is that new fields of the economy are going to be integrated into the international economy. The scope of the present EC-EFTA integration has been limited to free trade in manufacturing. Accordingly, agriculture, which the EFTA countries in general pursue quite extensively under fairly harsh climatic conditions, has remained outside the realm of the integration process, as have also been the service industries or the sheltered (nontradable) sector. Given the above noncompetitive structures, an essential question is, to what degree would an EC membership entail a shift from "a rent sharing equilibrium to a more competitive one", as EC membership could result in changes in the domestic economy by enforcing increases in efficiency and in alleviating indirectly the burden of distortions caused by the existing monopolistic structures.

The aim in the following is to consider the likely economic effects which membership in the Community could cause for the EFTA countries, especially Finland. At ETLA an extensive study, Alho-Kotilainen-Widgrén (1992), has been completed on this issue. The main finding of this study was that there exists for Finland the potential for a sizable long-term welfare gain from EC membership. But in order to exploit this opportunity, a marked capacity and willingness to adjust is required as some changes are going to be of the inter-industry type. The long-run welfare gain

was estimated to be on the order of 4 per cent in relation to GDP.

The aim in the following is, first, to give a concise summary of the channels and estimates of the effects of an EC membership on Finland reached in the ETLA study. Secondly, some fundamental analytical issues related to the consequences of membership and the adjacent adjustment problems are discussed outside the scope of the ETLA study. In section 2 we briefly outline the most important areas where EC membership differs from participation in the EEA and present a summary of the long-term welfare gains as reached in the ETLA study. The three most important areas: sheltered sector restructuring, participation in the EC agricultural policy and participation in the EMU, are evaluated in more detail in sections 3 to 5. Section 6 presents the main conclusions.

2. Estimates of the impacts of EC membership on Finland

The starting point for analyzing the changes that a possible membership in the EC would imply for the EFTA countries is the EEA Agreement, which is then treated as the baseline scenario, see table 1.

Table 1. EC membership vs. the EEA, the major differences

Area	EEA	EC membership
Foreign trade	Free trade agreement with the EC and national trade policy towards 3rd countries	Customs union with the EC and common external trade policy
Mobility of factors	Free with minor exceptions to the EC rules (on secondary houses)	Free, with likely no exceptions
Agriculture	Not covered	Participation in CAP
Sheltered sector	Intensified competition through i.a. opening of public procurement, and indirect pressures through increased factor mobility	As in EEA, but magnified in sectors linked to agriculture and due to EMU
Macroeconomic policies	Not covered, freedom of exchange rate adjustments and likely interest rate differential	EMU, no exchange rate changes, no interest rate differential
Taxation	Not covered	Harmonization of indirect taxation
Budgetary items	Total payment of 130 million ECUs (over a 5 period) to an EC cohesion fund	A net payment of 400 mill. ECUs to the EC

As the EEA links the EFTA countries to the EC internal market programme, full membership is not going to imply major changes in foreign trade. There are, however, two important changes to be noted here. First, the EC is a customs union while the EEA is still merely a free trade agreement. The rules of origin thus still apply to the EFTA exports to the Community, but not any more as a member. Secondly, as members the EFTA countries would have to adopt the common external trade policy of the Community. This would imply that in some industries the imports of intermediate goods and some final consumer goods would face higher or lower barriers than today, although on average there would not be an appreciable difference in external tariffs. Accordingly, in the recent study completed at ETLA on the effects of an EC membership on the Finnish

economy, the overall net gains in foreign trade were evaluated to be quite minor, see table 2.

Of much more crucial importance is that the scope of integration is going to deepen and be - even dramatically - widened as a result of EC membership. The EFTA countries would have to adopt the common agricultural policy (CAP) of the EC, coupled with the reduction in the agricultural support implied by a possible GATT agreement. To give an idea about this adjustment pressure, in Finland the average agricultural prices are at present roughly 50 per cent higher than those in the EC. The gap was even wider earlier, and it has narrowed to this magnitude to a large extent as a consequence of the recent considerable weakening of the Finnish markka. An important issue is also the direct and indirect pressure to rationalize and increase competition elsewhere in the sheltered sector, such as in government services and the foodstuffs industry living partially under the umbrella of agricultural protection.

In the ETLA study the overall long-run welfare gain, i.e. rise in the long-run level of consumption, was mainly caused by three factors: restructuring in agriculture and other sheltered sectors, and participation in EMU, see table 2. In foreign trade the abolishment of the border formalities under full membership between EFTA and the EC and elimination of the rules of origin were estimated to lead to a rise in export earnings on the order of 1.5 per cent in relation to Finnish exports to the EC. The effects of reduced barriers in imports from the EC and the rising barriers towards third countries roughly offset each other. The accruing changes in foreign direct investment (FDI) is an important, but difficult, factor to estimate. The experiences of the EC countries after their joining the Community were evaluated and contrasted to the EFTA experiences. The average net outflow of some 5 billion FIM of FDI was estimated to decline by 1-2 billion on a per annum basis due to membership in the EC, because the incentive for the domestic firms to invest inside the EC borders would be eliminated and the attractiveness of Finland for foreign investors is likely to rise.

Table 2. Composition of long-run net welfare gain of EC membership for Finland

Area	Transmission channel	Long-run welfare gain, per cent in relation to GDP
Exports	Reduced barriers by 1.5 per cent in exports to the EC	0.25
Imports	Reduced barriers in imports from the EC, increased barriers in imports from 3rd countries	0.1 -0.1
Foreign direct investment	Improved net FDI balance by 1-2 billion FIM leading to a larger capital stock in the export sector	0.3
Agriculture	Reduction in production by 30 per cent, allocation gain and consumer gain	-0.3 1.75 0.2
The rest of the sheltered sector	Improved resource allocation, an intensified competition i.a. in foodstuff industry	1.0
EMU participation	Reduced foreign exchange transactions costs, reduced exchange uncertainty, and lower real long-run rates of interest (by 1.5 percentage points)	0.2 0.1 0.8
Participation in the EC budget	The EC budget expanded as of Edinburgh	-0.5
Harmonization of indirect taxes	Assumed to be compensated by increasing distortionary labour income taxation	-0.1
Benefits via induced endogenous capital formation	Applies to effects and sectors where marginal productivity of capital initially rises	0.5
Net gain		4.2

Source: Alho-Kotilainen-Widgrén (1992).

The changes in agriculture and in the restructuring of the sheltered sector require rationalization of the industries concerned, release of labour and therefore imply some painful adjustments. If such an adjustment were not to happen (see section 4), the gain from EC membership is clearly reduced, say to be on the order of one per cent of GDP only, and is comprised of the improvements in the external trading conditions and the gains related to EMU.

An interesting methodological question of also practical significance concerns what changes in the economy can really be ascribed to EC membership and what changes could also be achieved by pursuing national policies outside the Community. Some people argue that only the changes in the external constraints of the home economy, such as reduced trade barriers and the abolishment of rules of origin, should be taken into account. But, for instance, rationalization of agriculture is an area where also equivalent national measures could be taken, which is in principle a justifiable argument. Its validity can be called into question on reasonable grounds, however, since such changes would upset the equilibrium of national rent sharing, which is not very likely to occur without some external impetus like that created by joining the EC.

3. Integration gains in the sheltered sector

International price differentials constitute an acid test of integration. It is common knowledge that the Nordic countries have been expensive. The overall price level in Sweden, Norway and Denmark was persistently at least 20 per cent higher than in Germany in the 1970s and 1980s. Finland in the 1970s was a notable exception, with roughly the same price level as Germany, but it joined the other Nordic countries in the 1980s. Price differentials tend to indicate that there are achievable gains from further integration of the Nordic countries with the EC. The equalization of price and cost levels predicted by trade theory should also concern nontraded goods and services

used as inputs for the traded goods, if identical technology is used in all countries (see Burgess, 1990).[2]

In Alho (1993) an analysis is presented on the various reasons behind the large price differentials between the Nordic countries and the EC. The idea is to disaggregate the aggregate price level of domestic final expenditure on GDP of the PPP calculations by the OECD into the value added price of the open sector in the home market and that of the sheltered sector, the import price and the level of indirect taxation. The open sector is crudely defined to encompass manufacturing and the sheltered sector is represented by the rest of the economy.

The price equations on unit labour costs (capital cost being proxied by a constant and a time trend) are estimated producing estimates for the mark-up factors for both sectors in the economy. The mark-up factor, see table 3, seems to be higher in German exports than in the sheltered sector, while the situation is the reverse in Finland and Sweden. The mark-ups in the sheltered sector in Finland and Sweden are quite similar and higher than in Germany, which confirms the standard view of less aggressive competition in this sector in the Nordic countries. In exports, the Finnish mark-up is very low, while that for Sweden is quite high.[3]

Table 3. Mark-up estimates from the price equations for Finland, Sweden and Germany

Sector	Finland	Sweden	Germany
Exports	0.16	0.43	0.25
Open sector in home market	0.90	0.56	0.78
Sheltered sector	0.27	0.27	0.13

Source: Alho (1993).

The relative price differential in the import goods is estimated mainly from Leamer (1990), who has analysed tariffs and non-tariff barriers in 14 countries, including Finland and Germany, but not Sweden, and also using evidence provided by Horwitz (1988) and Alho (1990). This information shows that tariffs do not differ markedly between these countries, and their effect on the possible difference in import prices can only be marginal. Non-tariff barriers may, however, play a more substantial role. On the basis of these estimates, we assumed that import prices are 10 per cent higher in Finland than in Germany, while for Sweden this figure is 5 per cent.

Using this information on the relative import prices, we can solve for the relative price in the sheltered sector starting from the aggregate price ratio given by the PPP estimates for 1985, which is a suitable year for comparison, as it is not preceded by large changes in relative export prices and so the identification of the sectoral price differentials can be based on the assumption of equal competitiveness of exports in the countries of comparison (see Alho, 1993 for details). The implied price deviations for the sheltered sector are really quite significant: in Sweden sheltered sector prices were in 1985 25 per cent higher than in Germany, while in Finland they were as much as 40 per cent higher. The higher mark-ups in Finland and Sweden contribute roughly 10 percentage points to these higher sheltered sector prices. The relative wage level in the sheltered sector raises the price ratio by 5 per cent in Finland, and slightly also in Sweden. The results clearly suggest that the major factor behind the high Nordic price levels has been the high price level in the sheltered sector, due mainly to monopolistic competition and deficient productivity in this sector.

A proper measure for relative efficiency can be reached by constructing a Malmquist productivity index, see on this e.g. Berg et al. (1991). The idea is to study the efficiency of a unit, here the sheltered sector in Germany, and compare it to that in Finland and Sweden. To do so, such a scale factor is found that the German output is produced with the German factor proportions, but using Finnish or Swedish production technology. In order to carry out this comparison we have had to

Finnish or Swedish production technology. In order to carry out this comparison we have had to transform the comparison to the same currency, specify a production technology (CES) and use the above estimate on the sheltered sector price differential. The results suggest that the Finnish and Swedish efficiency was in 1985 a third lower than the German efficiency.

The deficiency in productivity in the Nordic sheltered sectors may be caused by many factors. Agriculture is clearly one such factor in the Finnish case, see below section 4. The large public sectors have not been obliged to keep track of their costs and raise their productivities. The region's small population sparsely distributed over a large area (supported by regional policies), the consequently limited use of scale economies in public and private service production, and an expensive distribution network have contributed to the situation. Accordingly, an important explanation for the different price levels could be that Nordic technology is different from that in the EC. As shown by Burgess (1990), under such conditions free trade in goods does not lead to an equalization of price levels.

What are the implications of this situation for further EFTA integration with the EC? Normally, integration should utimately lead to an equalization of the price levels. But if there are natural reasons behind, and an efficient adjustment to, the situation of a persistent price differential, this equalization can probably be achieved only in a limited degree. This is crucially linked to how the burden of the sheltered sector inefficiency is borne in the Nordic countries. In the present conditions of internationally freely mobile financial and real capital, in the long run the rental rate on capital is given to both sectors from abroad. Therefore, capital cannot bear the burden of the sheltered sector inefficiency. If labour is in a fixed supply in the economy and the labour market is competitive, the inefficiency is fully absorbed by the lowered real labour incomes. Therefore, an inefficiency - and a possible rationalization - of the sheltered sector does not have a multiplier effect on the open sector. If efficiency in the sheltered sector improves, this is cashed in on com-

pletely in the form of higher real labour incomes, and equivalently in aggregate real incomes as well.

The monopolistic features of the Nordic economies, referred to above, in the imperfectly competitive goods and labour markets, can make things look quite different. Normally, a union is taken to have two goals, employment and the real (consumption) wage rate. If the real wage is low, due to an inefficient sheltered sector or agricultural protection, a union substitutes the real wage for employment by pushing up the nominal wage rate. This means that the open sector bears part of the burden through reduced profits and also through a reduced output. So, if the sheltered sector efficiency rises, both the open sector firms and labour benefit from this. The extent to which this happens is an empirical issue.[4]

The effect of a rise in sheltered sector productivity on aggregate real incomes Q can be presented as follows,

$$\hat{Q} = \lambda_O \epsilon(Q_O, \frac{P_O}{W})(\hat{P}_O - \hat{W}) + \lambda_S \epsilon(Q_S, \frac{P_S}{W})(\hat{P}_S - \hat{W} + \hat{a}_S) + \lambda_S \hat{a}_S \ , \qquad (1)$$

where a_S is the index of productivity in the sheltered sector, Q_i (P_i) is the production (price) in sector i, the subscript O denotes the open and S the sheltered sector, and λ_i is the share of sector i in total production, W is the uniform wage rate, ϵ denotes an output supply elasticity, and a caret denotes the relative change. For simplicity, in (1) the intermediate goods are assumed away. If we combine this with the reaction of the monopolistic wage setting, depending positively on employment L and the price level,

$$\hat{W} = \mu \hat{L} + \nu \hat{P}_S \ , \ \mu>0, \ 0<\nu\leq 1, \qquad (2)$$

we can solve from the underemployment equilibrium in the labour market for the wage rate, which depends negatively on the sheltered sector productivity.[5] In the case of competitive goods and

labour markets and perfect mobility of capital, instead of (2), the wage rate is only tied to the given foreign (export) price P_O. This implies that in (1) the two first terms vanish, but under monopolistic labour markets these terms are positive, and so the output reaction from a rise in productivity a_S is bigger than under competitive labour market conditions. This implies that EC membership can cause an additional welfare effect if it leads to a reduction in the distortion caused by the existing monopolistic structures.

Qualitatively, EC membership is likely to lead to a development along the lines above. However, it is not a straightforward task to fix quantitatively which changes in sheltered sector operations are due to EC membership, because there is a number of potential but diverse channels contributing to these changes. Part of them take place already under the EEA, such as opening of the public procurements and financial services. Those more closely related to EC membership are harmonization of indirect taxation, effects caused by transparency of a common currency, intensified tax competition due to capital and labour mobility, the pressure created by the EMU convergence leading to cost reductions and efficiency gains in the public sector, and the effects of reduced protection and increased competition in the foodstuffs industry closely linked to agriculture. However, the possibility argued above, that part or even all of the burden of inefficiency can be borne in a "costless" way, raises an adequate warning in this respect of not rushing to excessive estimates of the gains.[6] We formed an estimate of a reduction in the sheltered sector prices by 1.5 per cent in relation to wages, which contributes to a rise in aggregate real income by one per cent of GDP. This estimate was partially based on an expert view that reduction in the acricultural protectionism will be followed by increased efficiency in the foodstuffs industry, reflected in reduced foodstuffs prices by almost as vigorously as the cheaper agricultural raw materials.

The potential welfare increase in the sheltered sector is clearly greater than that to be achieved through goods market integration. This was also concluded by Victor Norman as he stated, "There

is room to expect EFTA countries to reap significant but modest gains from integration of European markets in manufactures, and to reap quite substantial gains from international competition in markets for services. Moreover, international competition might be a prerequisite for domestic deregulation of key service industries." Norman (1991, 128).

If also labour becomes internationally mobile, this would impose a dilemma for the Nordic countries as then the burden of inefficiency could not any more be shifted on a domestic factor of production. The sheltered sector would have to be raised to the same level of productivity as that in the near-by EC countries, which would be likely to impose marked adjustment pressures on the economy and society.

4. Restructuring of agriculture

On a global scale, the CAP of the EC is a policy of extensive agricultural protection, which generates a significant cost in the form of trade diversion to the more efficient producers outside the Community and to the EC consumers (see e.g. Sapir 1992). At the same time, it is also considered to be a very complicated and bureaucratic system of controlling production in this field. So, the EFTA countries lose a potential welfare gain if they become members of the CAP, instead of adopting "fully free trade" in agriculture, as was argued in the CEPR (1992) report on the enlargement of the Community. But there is even a higher protection of agriculture in some EFTA countries, notably in Finland, Norway and Switzerland, and welfare gains can be reaped also from opening of acriculture to the EC markets.

EC membership would entail marked adjustment pressure in this sector and a loss of producer incomes for EFTA farmers. At the same time it can bring a substantial welfare gain to consumers,

see e.g. Anderson and Tyers (1994). The welfare gains from adoption of the CAP depend on whether the current use of resources in the economy is efficient or not, and whether there will be a shift of resources from agriculture to other sectors of the economy, or will the existing resources continue to be tied to farming by, for example, channelling income transfers which compensate the loss in producer incomes. Trade liberalization in the case where the resources are not internally efficiently allocated, i.e. at the current prices a higher national income could be produced, leads to a larger welfare gain if it can be combined with a more efficient internal allocation of resources. As we argue below, the current situation in Finland is likely to give a potential of this kind. If, in order to mitigate the adjustment process of agriculture, which is likely to result in at least temporary unemployment, the structural change will deliberately be slowed down by policies channelling direct income transfers to farmers, resources will remain in agriculture, the production structure remains inefficient and, in the extreme case, the overall welfare gain only consists of that caused by the cheaper food prices to consumers.

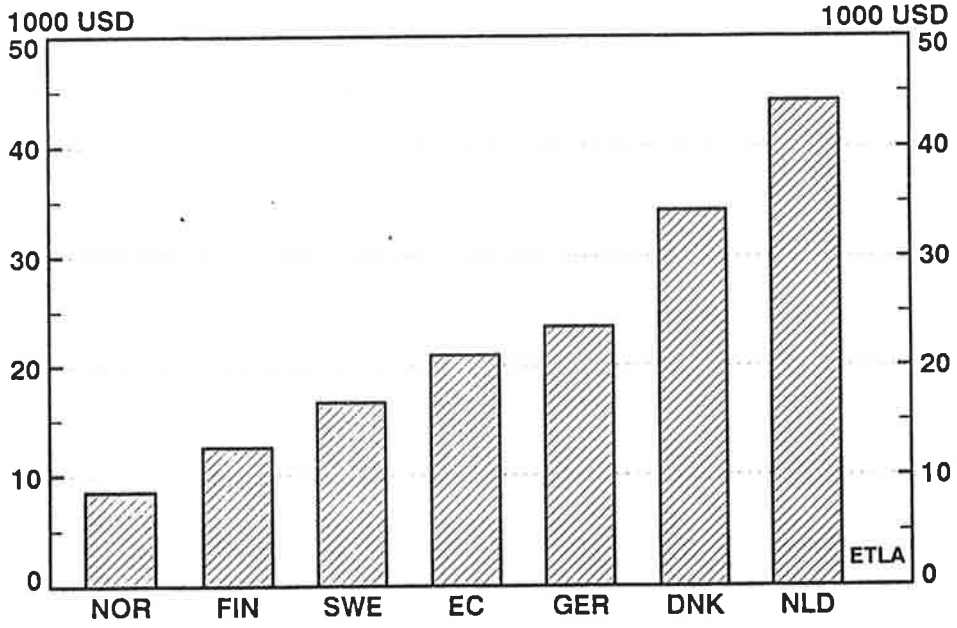
Let us attempt to get a firmer analytical hold of what can be expected from an adjustment of Finnish agriculture to the CAP. The current pre-EC agricultural policies followed in Finland could be described in the following way. There is a set of farms with fixed capital and labour endowments $\{K_i,L_i\}$, i = 1,...n, $Q_i = F_i(K_i,L_i)$ being the production on farm i. Let further P_A be the price of agricultural output and W the wage level and r the cost of capital in the economy. The goal of the present agricultural policies has been to guarantee the same income for farmers as in corresponding occupations elsewhere in the economy. So, P_A is set in such a way that for each farm,

$$\frac{P_A Q_i - rK_i}{L_i} \geq W . \qquad (3)$$

It is definitively evident that there are in agriculture significant scale economies, which are at present to a large extent underutilized in Finland. For example, the average crop-growing farm in Finland is only of the size of 18 hectars, while that in Sweden is roughly 50 hectars, in France 63,

the UK 127 hectars (Kola, Marttila, Niemi, 1991). Of the Finnish farms 69 per cent have an area less than 20 hectars and only 4 per cent are larger than 50 hectars (Kettunen 1992). Also measurements on costs and production as a function of the farm size clearly indicate the existing scale economies. As the climatic conditions for crop growing in Finland are inferior to those in the more southernly located EC areas with a longer annual growing season, a strive towards a larger farm size here would have been a natural reaction, but the situation is quite the contrary. This is, of course, due to historical and political reasons, and the existing extensive protection against agricultural imports.[7] Figure 1 gives evidence on the productivity gap, which is due to both the inefficient internal production structure and the inferior climatic conditions.

Figure 1. Average productivity of labour in agriculture in relation to the EC in 1990[1)]



1) The average productivity shown by the national accounts has been corrected by the relative producer prices. The producer price in country i in relation to that in the EC has been estimated as $(1-s_{EC}) / (1-s_i)$, where s is the net percentage producer subsidy equivalent measured by the OECD.

Increasing returns to scale in agriculture imply that there is a rising rent on the farm capital as the farm size grows. This is reflected in rising prices on agricultural capital (land) q_i on a unit of capital, determined by the present value of the rentals,

$$q_i = \frac{P_A Q_i - WL_i}{rK_i} \quad . \tag{4}$$

As the break-even point in (3) is at the level of the least efficient farm, the market values of the farms are persistently above unity in relation to the replacement price of capital.[8]

Transition to the CAP would cut the price of agriculture to a new level, which is roughly a third lower than the present, denoted by P_A^1. Now, for the least efficient farms the rental $P_A^1 Q_i$-WL_i turns negative. According to normal economic principles these farmers have to shut down. Let us assume that in such a case the market price of the farm is equal to its alternative use, e.g., as forest land or in housing, and denoted by c per unit of capital, c being less than unity.

For the most efficient farms the constraint (3) holds in the new situation as well (for them q is still above unity). As the farm capital is financed by both loans and net wealth, also those farms can continue for which the (secondary market value of) equity remains positive, i.e. for which the rental is sufficient to pay the interest charges. Let us denote by K* this limit of the minimum efficient scale for the farm size in the EC membership.

If the possibility to transform to a bigger farm size is simultaneously utilized as the current rent is eliminated, the outcome can be quite different from that above. Let us for simplicity imagine that all farms use the same labour input, which does not limit the validity of the argument. A merger of farm j with farm i can, due to scale economies, generate a positive net profit S_i although for both of them it is negative, and the new farm can continue production. Let simply farm i be fully

leveraged and farm j be an unprofitable one. The condition for a succesful merger is,

$$S_i = P_A^1 F(K_i+K_j,L_i) - WL_i \geq r(K_i+cK_j) \ . \qquad (5)$$

It can be seen that as $c < 1$, all mergers of i and j for which $K_i+K_j > K^*$ result in farms which can continue production. (In fact, this limit on the farm size through a merger is slightly less than K*, because c is less than unity). Imagine that all the N farms in the country are by size evenly distributed over the inverval $(0,K_{max})$. The maximum number of mergers of two farms leading to a positive surplus in (5), where they both are initially located in the range (0,K*), is $\frac{1}{2}N(K^*/K_{max})$. This is also the loss of jobs in agriculture. However, this rationalization through mergers would imply that none of the agricultural capital is lost from production, it is only used more efficiently, and agricultural output will on the contrary rise.[9] In agricultural reforms this kind of output reaction has indeed been observed, see Koester (1991), who also discusses the effects of agricultrural reforms reaching similar conclusions as here.

However, it may be difficult to reach this social optimum in reality. The capital markets may not be efficient enough to facilitate the mergers of unprofitable farms. Perhaps only the merger of unprofitable and profitable farms is possible in practice, in which case there would be a loss of agricultural capital and the corresponding output. Of course, also spatial considerations omitted here dictate that the number of mergers is less than suggested above, but not necessarily to a great extent if the farms are concentrated in large enough clusters.

So, there could be a need for public intervention to facilitate the restructuring of agriculture. This could take the form of financing the investments leading to a larger farm size and perhaps loan guarantees to those farmers expanding, and also training and assistance for those leaving the industry so that they can find new jobs. Of course, also the capital losses can be a severe problem and cause social unrest as when any rent created by public policies is eliminated.

If there is a drop in agricultural production, the social cost of this must now be evaluated at the EC prices rather than at the high domestic prices. In the ETLA study, we started from a prospect, used normally in Finland, that there is a loss of one third of the agricultural output, due to EC membership, calculated from the level of self-sufficiency. We further assumed that one quarter of the agricultural labour force can find a job in another indusry with the same productivity as is the average in the economy. This causes a welfare gain of more than one and half per cent of GDP. This should be added to the consumer gain through reduced prices, which appears to be of quite a small magnitude, on the order of 0.2 percentage points in relation to GDP, mostly due to the low price elasticity of demand for foodstuffs. If resources are tied to agriculture by channelling new income transfers, the burden for the rest of society remains. Thus, permanent income supporting systems should be applied with caution.

5. Participation in EMU

A main element of EC membership entails the participation in EMU, the formation of which still remains obscure. The EFTA applicants have nevertheless taken EMU at full face value and expect it to be realized. The question is often raised, intensified by the recent turmoil in the European exchange markets and the large devaluations of two of the Nordic currencies, whether participation in EMU is too tight a macroeconomic environment for Finland and the other EFTA countries as well.

The problems here are two-fold. First, in macroeconomic stabilization the Nordic countries weigh employment clearly more heavily than curbing inflation, as compared to the EC core. The efforts to get the non-inflationary stable currency policies of the late 1980's to be adopted in the society at large have more or less failed and even been condemned as wrong policies in a period of severe

recession. Thereby, living in EMU may prove to be painful. A major problem of policy-making and research is how will the economy's structures and adjustment change to find new ways of absorption of macroeconomic shocks, as these mechanisms are in reality endogenous and dependent on the exchange rate regime. An economist's answer to this issue could be that an irrevocably fixed exchange rate mechanism will lead to an equal real wage adjustment through means of nominal wage adjustment as is the current real wage flexibility through a combination of nominal wage inflexilibity and inflation (devaluations). At least, this should be a minimum goal with respect to the entrance into EMU.

For Finland, the special case of a clearly smaller share of intra-industry trade with the EC than is the normal case in Europe (see e.g. Baldwin 1992) is a factor which has caused worry related to asymmetric shocks. However, the actual asymmetries have not been so great for Finland as might be expected from the trade pattern. On the other hand, the recent extremely deep recession in the Finnish economy, caused by a number of simultaneous adverse demand and supply shocks, calls for caution in this respect.

The room for manouvering under floating or unilaterally pegged exchange rates should be contrasted with the cost of staying outside EMU. This would entail exacerbation of the credibility problems in policy-making, as there would not be a possibility to borrow credibility from abroad. Inflation control could easily be a problem, given the above-mentioned macroeconomic preferences. This would require devaluations from time to time and consequently, expectations of them could be a common situation. This would likely lead to a permanent differential in the real interest rates.

In the period 1987-92 after the liberalization of the credit markets, but admittedly in a phase of mounting imbalance in the economy, the average differential in the Finnish long-term interest rates vis-à-vis Germany was 4.5 percentage points, but narrowed in mid-1993 to 2 percentage points. In

the ETLA study we assumed that the gap in real long-term interest rates is one and half percentage points between the EEA and EMU. Elimination of this differential could imply an increased capital accumulation ranging from a very small estimate, implied by the empirical investment equations as a reaction to a reduction in the capital cost, to even a quarter if a Cobb-Douglas aggregative production function is used. We cautiously estimated the effect to a rise in the capital stock at some 5 per cent, leading to a long-term rise in the consumption potential of 0.8 per cent in relation to GDP. This gain would outweigh those to be reaped from elimination of transactions costs and exchange rate risks with respect to the EC currencies, see table 2.

6. Conclusions

The application for full membership in the EC by the EFTA countries is a deviation from their traditional policies of integration, which have been confined to free trade in manufactured goods, but have avoided commitment to supranational political or economic decision-making arrangements. The major reasons behind this traditional strategy were two-fold. First, most of the EFTA countries have pursued neutrality in their foreign policies, which formerly dictated an exclusion of a membership in the EC. Second, the countries have had a model for social and economic management that has differed from, and which they themselves have considered to be superior to, that of the big European countries. The most prominent example depicting this is the coinage of the term the Nordic or Swedish model. It is easy to understand that a natural corollary of, and a prerequisite for it, is that a high level of national sovereignty should be preserved in economic, social and political decision-making.

The access of Finland and other EFTA countries to the EC would likely resolve the "influence deficit" of these countries in European - and their own - affairs prevailing under the EEA. The final

social assessment of the diverse goals of sovereignty and autonomous social management, and the gains from European-level cooperation and commitment have not yet been settled in the EFTA countries and are finally to be resolved in referendums after the negotiation stage.

Some improvements in trading relations with the EC would occur, but these are likely to be quite small, and are shadowed by the risk of increased trade barriers vis-à-vis the third countries. The main impact of the economic changes would be felt in new fields of the economy included in the integration process. As these may involve changes of the inter-industry type, adjustment to them will not be easy and may create social problems as the EC membership is aimed to be a Pareto-type of welfare improvement for the society at large. A conflict between "EC winners" and "losers" can emerge, which a policy-making based on national homogeneity would be hard pressed to reconcile. This would deviate from the intra-industry nature of European integration (found by Balassa), with the implication of only little need for large structural changes, which has facilitated acceptance of integration and commitment to it by the politicians, see Sapir (1992) for an interesting discussion on this.

EC membership can mean a change in the equilibrium of vested interests of "economy-wide rent sharing" and lead to more competitive surroundings and, consequently, to reduced distortions linked to the existing structures of protectionism and monopolistic behaviour and even to a pressure towards a new kind of social model. However, one should refrain from drawing hasty conclusions in this respect. The EC is neither "a competitive heaven" and the EC countries are in most respects not much different from the EFTA countries and have similar problems - and strengths - in their societies.[10] If the Nordic countries are going to preserve their own model, this should be arranged in a costless way with respect to their participation in integration and, accordingly, the labour market should be transformed into a more competitive one. However, if the degree of labour mobility does not remain as small as it has been, a new pressure of adjustment arises.

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Notes

1. However, the conflict between labour and capital should not be taken as a dominant feature in the EFTA countries. The unions, often enjoying a strong political position, have also shown behaviour according to the Nordic model of inflation, emphasizing that the room for wage hikes is determined by the open sector price and productivity developments.

2. The recent devaluations and flotations in 1991-92 have changed this situation markedly - at least temporarily. At the moment, the price level in Finland is even lower than in Germany. After the Swedish krona was allowed to float in November

1992, the Swedish price level was at the end of 1992 roughly the same as in Germany. The current situation would thus on the surface imply a convergence to parity from the earlier disparity. However, the devaluations should be contrasted against the simultaneous reduction in the export market prices and the depression, which have been more severe for Finland and Sweden than for many other countries (see OECD 1993). Therefore, we should not make too far-reaching long-term evaluations based on the very recent experiences. If the excess supply in the export markets fades away and leads to a rise in prices and the economy recovers, a return towards a previous price situation may be likely.

3. In all countries, the open sector mark-ups are strikingly high in the home market. However, this has been estimated in a roundabout way, as there is no price index for the home market prices of open sector. Caution should be taken with respect to their reliability.

4. The estimates derived from the wage equations do not produce unambiguous answers. For Sweden Calmfors and Forslund (1991) estimate that 70 per cent of the wedge between the consumption and producer prices is reflected in the nominal wage.

5. From the pricing relations we get under monopolistic competition, with unchanged mark-up factor, the product wages to depend negatively on the wage rate. Inserting this into the labour demand functions and combining with (2), we can solve the wage rate to depend inversely on the productivity rise in the sheltered sector.

6. This dilemma is a token of a general problem in theoretical and empirical integration analysis, namely that quite big welfare gains can be achieved if a situation of uniform competitive pricing is reached in Europe, instead of the present oligopolistic pricing with market segementation. However, it is quite difficult to predict whether this kind of ultimate market integration will take place in Europe even after completion of the single market programme, because such an outcome is assumed, rather than shown, to be a consequence of the programme; as is done in the seminal paper by Smith and Venables (1988). A researcher seeking to give an estimate on the magnitude of integration gains faces the daunting task of taking a position on the gains related to a final equilibrium of complete integration, but without knowledge of the articulated steps leading to it, or he can omit them totally and only stick to the smaller gains related to elimination of trade barriers. In the estimate above, this kind of choice had to be made between full price and productivity parity and the situation remaining more or less unchanged as it has been in the past.

7. Of course, it can be questioned why the existing returns to scale in agriculture are not utilized as they would result in higher aggregate profits for the industry. There are a number of reasons which can support the prevailing situation as a pseudo-equilibrium and which prevent or at least slow down the process towards a more efficient structure of production. One of them is the very high prices on agricultural land (capital), coupled with the fact that, if a gain in efficiency were to take place, the policies would be likely to change endogenously to eliminate this gain by reducing the price P_A, as it would be difficult to accept the rent linked to agricultural production to increase even further.

8. This conforms with the situation in the late 1980's when the average price of fields in Finland was double that in southern Sweden, where the physical productivity of crop growing is at least 50 per cent higher than that on average in southern Finland. The high current surplus at that time and expectations of continuous agricultural price supports were discounted in the land prices.

9. As an illustration, let $Q_i = K_i^a$, $a > 1$. If the farm size is uniformly distributed over $(0,K_{max})$ and the farms in the range $(0,K^*)$ are merged with each other so that all the resulting farms are of the size K^*, the change in output is $dlogQ = (K^*/K_{max})^{a+1}(a-1)/2 > 0$. The resulting smallest reduction in agricultural employment is $dlogL = \frac{1}{2}(K^*/K_{max})$.

10. See Winters (1993) for a discussion on the success of the EC as a regional integration and the competitive aspects of it.

ELINKEINOELÄMÄN TUTKIMUSLAITOS (ETLA)
THE RESEARCH INSTITUTE OF THE FINNISH ECONOMY
LÖNNROTINKATU 4 B, SF-00120 HELSINKI

Puh./Tel. (90) 609 900 Telefax (90) 601 753
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