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Prospects of Finnish regional development under EMU and deepening integration

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**PROSPECTS OF FINNISH REGIONAL DEVELOPMENT
UNDER EMU AND DEEPENING INTEGRATION**

Abstract

Regional differences in Finland are remarkable in terms of structures, GDP, employment etc. The objective of the paper is to estimate the impacts of the EMU on the development of Finnish regions. Theoretical starting points are the theories of regional development and optimum currency area (OCA). The empirical part concentrates on an analysis of the EMU-sensitivity of Finnish provinces (NUTS 3 level). The paper tries to identify the features of different regions, also with an objective to find ways to promote their development.

The results show that the future of strongest provinces looks most promising. Their structures and overall economic situation make it possible to exploit the benefits of the EMU. Usually, their competitiveness is also better compared with the weaker regions. On the contrary, the pressures on the weakest regions may increase, and they may have to go through problems and changes. However, the future of regions is increasingly in their own hands, and by identifying their strengths they can promote their own development. At the same time, the role of regional policy also increases. At its best, the EMU can promote the development of all regions. However, if weak regions do not succeed in adjusting to the new environment, there is a risk of regionally imbalanced development.

PROSPECTS OF FINNISH REGIONAL DEVELOPMENT UNDER EMU AND DEEPENING INTEGRATION

1. Introduction

The objective of the European Economic and Monetary Union (EMU) is to promote growth and stability. An important and increasingly emphasised aspect of the EMU and integration is regional development. The EMU brings about economic benefits and potential costs, which will be unevenly distributed between regions. The development of different regions depends on the ability to respond to changes and adjust into the new environment.

According to Peschel (1992), an important aspect is to research, whether the prevailing trends of development strengthen or weaken as a result of deepening integration. A recent trend in Finnish regional development has been centralisation. Migration has accelerated, and population, as well as economic activity, seem to be concentrating in a few centres. Krugman (1993) argues that in the EMU, the regional specialisation and concentration in Europe further increases. On the other hand, Illeris (1993) emphasises the role of local activity and supports the mosaic model of regional development. From the viewpoint of convergence, a common result is that the levels of income in the EU-countries have slowly converged, but at the regional level development has not been so clear. (See e.g. Barro & Sala-i-Martin 1991, Armstrong & Vickerman 1995, ERECO 1997). However, the results of Finnish regional convergence indicate that convergence has slowly occurred. (See e.g. Okko 1995, Kangasharju 1996, Pekkala 1998).

To form an optimum currency area, the structures of regions should be similar and diversified enough to avoid asymmetric shocks. (See e.g. Gros & Thygesen 1992; Kenen 1969). If the regions are structurally different, the risk of these shocks is higher. If the EMU leads to deepening specialisation, the risk can further increase. (Krugman 1993). In the EMU the economic adjustment mechanisms are limited. The countries do not have independent monetary policy. In addition, fiscal policy is controlled by criteria, and its ability to promote regional development is restricted. In the new conditions, the role of labour market flexibility increases. However, labour mobility and wage flexibility have been low in Europe. (E.g. Fatás & Decressin 1995). Thus, the future of regions is not

without threats, and despite the benefits of the EMU, there is a risk of regionally imbalanced development.ⁱ

Regional differences in Finland are remarkable in terms of structures, GDP, employment etc. The paper estimates the impacts of the EMU on the development of Finnish regions. The theoretical starting points are the theories of regional economic development and the theories of optimum currency area (OCA). The empirical part of the paper concentrates on the analysis of the EMU-sensitivity of Finnish provinces (NUTS 3). The indicators are divided into three main categories: structural factors, regional economic differences and competitiveness. Structural factors include production structure, exports orientation, small and middle-sized enterprises (SMEs), as well as dependency on agriculture and the public sector. The chosen indicators of regional economic differences are GDP/capita and unemployment. Competitiveness is analysed by the levels of education and technology.

2. The concept of EMU-sensitivity

A factor defining the regional impacts of deepening integration is EMU-sensitivity, which is affected by a new competitive situation and a common currency.ⁱⁱ The impacts depend on the ability to respond to changes, and ability for short-term adjustment and long-term structural changes. Sensitivity does not necessarily mean threats, and it can also mean opportunities (See Hyvärinen & Okko 1997). In this paper, sensitivity is analysed by different complementary indicators, which are derived from the theories of regional development, integration and optimum currency area (OCA):

I. Structural factors

* Production and exports structure. A production structure similar to the other EMU-areas reduces the risk of asymmetric shocks. On the other hand, a diversified production structure reduces a region's dependency on few sectors, and decreases the negative effects of sector specific shocks on the overall regional economy. However, it must be pointed out that on the other hand specialisation can also be an important factor promoting development.

The similarity of production structures is analysed by the index:

$$I = \sum_i |S_i - S_i^*| \quad ; \quad 0 \leq I \leq 2.$$

Symbol S means the share of a sector in the regional value-added or exports. Symbol S_i means the region under observation, and S_i^* the region it is compared with. By adding together the differences in sectoral shares, one can calculate the index, which illustrates the overall difference of production structures. The lower the index value is, the more similar the structures are, and vice versa.

In turn, diversification of production is analysed by an index, which is calculated from the shares of eight biggest industrial sectors in the provinces. The index is weighted so that the share of the biggest sector is multiplied by 1, second biggest by 2 etc. This method stresses the weight of smaller sectors, and hence increases the index value of diversified regions.

* Exports orientation. Competition in the EMU will be hard. Still, the widening 'home markets' provide the regions with growing exports potential. Exports orientation is thus an important factor defining the regional possibilities to exploit the future EMU-benefits.

* Number of SMEs. The economic role of small and middle-sized enterprises (SMEs) is increasing. Their role has increased in promoting structural changes, employment and innovation, and they illustrate the development potential and dynamics of a region. Hence, the SMEs also play an important role in regional EMU-adjustment. Generally, prospects may be weak if a region is dominated by only one big enterprise (Peschel 1992; Steinle 1992).

* Agricultural production illustrates dependency on this sensitive production area, which is going through changes and declining in size.

* Size of the public sector illustrates the regional need for adjustment, when the budget restrictions of the EMU narrow the financing and employment possibilities of the sector.ⁱⁱⁱ

II Regional economic differences

* GDP/capita illustrates the general economic situation of a region. The benefits of the EMU can usually be best exploited by strong regions, while the potential negative effects threaten especially the weak regions.

* Unemployment rate is another important factor illustrating the economic situation of a region. High unemployment can also be a sign of structural problems.

III Competitiveness

Competitiveness is a key question of regional EMU-adjustment. In the EMU, competitiveness is increasingly based on absolute advantage. However, the concept of competitiveness is difficult to define or measure. In Finland, e.g. Mikkonen (1994) and Silander et al. (1997) have analysed regional competitiveness. Their result was that the most competitive and attractive of the provinces is Uusimaa, a southern province including the capital area.

Modern views of regional development emphasise endogenous growth and the role of human capital. (See e.g. Porter 1990). The concept of innovative milieu defines factors that affect the dynamic development potential in a region. (Camagni 1992; Camagni 1995). In Finland, Ritsilä (1997) has analysed different regions as innovative milieus. The results indicate that in terms of innovativeness and synergy, central and urban areas are generally in a better position than rural areas.

Here, regional competitiveness is analysed by two important indicators:

* Education. Level of education illustrates human capital and innovation possibilities of a region. Thus, education can be seen as an important base of regional development potential.

* Technology. The EMU will open particularly big opportunities for the regions of high technology. However, this does not mean that development can be based only on high-tech.

3. Results of EMU-sensitivity in the Finnish provinces

3.1. Similarity of production structures

Comparing the national production structure of Finland with other EU-countries, one can see that structural differences are remarkable. The structure of Finland is most similar with Sweden. However, it is very different to any of the EMU-countries. The exports structure of Finland is even more different to the Central European countries than the structure of value-

added. Hence, Finland differs considerably from the EU average, as well as the average of the 11 countries starting the EMU. Comparable index values for EU core countries are low, describing their structural similarity. In addition, from the comparison of the index values for the year 1985 and for the latest available year in the 1990s, one can see that the structures have not strongly converged, although the exports structure of Finland has become a bit more similar to some EMU-countries. (Table 1).^{iv}

Country / Country group	Value-added, Index value (latest)*	Exports, Index value (latest)*	Value-added, Index value 1985	Exports, Index value 1985
Finland	0.00	0.00	0.00	0.00
Sweden	0.36	0.48	0.41	0.57
Denmark	0.61	0.92	0.45	0.95
Germany	0.59	0.81	0.65	0.91
France	0.50	0.88	0.50	0.88
Belgium	0.59	0.85	0.61	1.03
Netherlands	0.57	0.92	0.61	1.05
Austria	0.58	0.67	0.51	0.68
Italy	0.60	0.87	0.50	0.82
United Kingdom	0.48	0.82	0.45	0.89
Spain	0.77	0.87	0.63	0.99
Portugal	0.82	1.01	0.70	0.85
Greece	0.79	1.21	0.69	1.26
Norway	0.43	0.80	0.33	0.81
USA	0.48	0.81	0.44	0.90
EU	0.48	0.76	0.46	0.77
EU-core countries**	0.53	0.78	0.55	0.83
11 EMU-countries***	0.51	0.78	0.50	0.93
11 countries+Sweden	0.50	0.76	0.49	0.93
11 countries+Sweden+UK	0.48	0.75	0.46	0.93

* 1993: Finland, Sweden, Germany, Italy and USA; 1992: Belgium, Austria, United Kingdom, Spain, Greece and Norway; 1991: Denmark, France, Netherlands; 1990: Portugal.

** Germany, France, Benelux-countries and Austria.

*** Finland, Germany, France, Italy, Belgium, Luxembourg, Netherlands, Austria, Ireland, Spain and Portugal. (Due to the non-availability of comparable statistical data Ireland is not included in the analysis).

Table 1: Structural similarity of value-added and exports between Finland and other countries/country groups, index values (Statistical source: OECD, 1996).

By calculating similar indices for the Finnish provinces, one can see that the production structure of most of them is, first of all, very different from the average of Finland (Table 2). However, in almost all of the cases, structural difference increases further when one compares the provincial structures with the EU-average. There are provinces, like Keski-Suomi and Etelä-Karjala, where the increase is particularly big, which can be explained by their dependency on the forest sector. The results verify that structurally Finland, or its provinces, do not belong to the EU-core group, which can increase the risk of asymmetric shocks. The common EMU-policies will not be designed for the special needs of Finnish regions, which emphasises the role of alternative adjustment mechanisms.

Province	a) value-added			b) exports		
	Finland	EU	Difference	Finland	EU	Difference
Uusimaa	0.63	0.61	0.02	0.69	0.70	-0.01
Varsinais-Suomi	0.71	0.63	0.08	1.11	1.18	-0.07
Satakunta	0.40	0.73	-0.33	0.70	1.26	-0.56
Häme	0.65	0.78	-0.13	0.88	1.24	-0.36
Pirkanmaa	0.43	0.82	-0.39	0.55	1.13	-0.58
Päijät-Häme	0.72	0.90	-0.18	0.97	1.25	-0.28
Kymenlaakso	0.90	1.28	-0.38	1.07	1.68	-0.61
Etelä-Karjala	0.98	1.44	-0.46	1.05	1.74	-0.69
Etelä-Savo	0.94	1.02	-0.08	1.33	1.40	-0.07
Pohjois-Savo	0.56	0.84	-0.28	0.82	1.46	-0.64
Pohjois-Karjala	0.67	1.00	-0.33	0.90	1.37	-0.47
Keski-Suomi	0.67	1.23	-0.56	0.79	1.53	-0.74
Etelä-Pohjanmaa	1.00	0.91	0.09	1.30	1.23	0.07
Vaasan rannikkoseutu	0.60	1.04	-0.44	0.67	1.28	-0.61
Keski-Pohjanmaa	1.06	0.92	0.14	1.63	1.34	0.29
Pohjois-Pohjanmaa	0.84	1.09	-0.25	0.80	1.38	-0.58
Kainuu	0.83	1.24	-0.41	1.02	1.64	-0.62
Lappi	1.01	1.47	-0.46	1.07	1.70	-0.63
Ahvenanmaa	1.24	1.22	0.02	1.45	1.48	-0.03

Table 2: Structural similarity of value-added and exports of Finnish provinces compared with the averages of Finland and the EU (Statistical sources: OECD, Statistics Finland)

3.2. Diversification of production

From the calculated index values of diversification (Figure 1), one can see that Uusimaa and Päijät-Häme are most diversified of Finnish provinces. On the other hand, the potential problems related to non-diversification can be biggest for the forest-sector-dominated provinces of Eastern and Northern Finland. Especially this is emphasised in the provinces of Etelä-Karjala and Kymenlaakso, where pulp and paper production form over 60% of industrial value-added and about 80% of exports. Also in Keski-Suomi and Kainuu the share of the sector is remarkably high. If specialisation deepens in the EMU, the regional shock sensitivity may further increase. Although the forest sector, as well as other strong exports sectors, is in normal conditions a positive growth factor, the creation and development of alternative economic activities is thus an important future challenge.

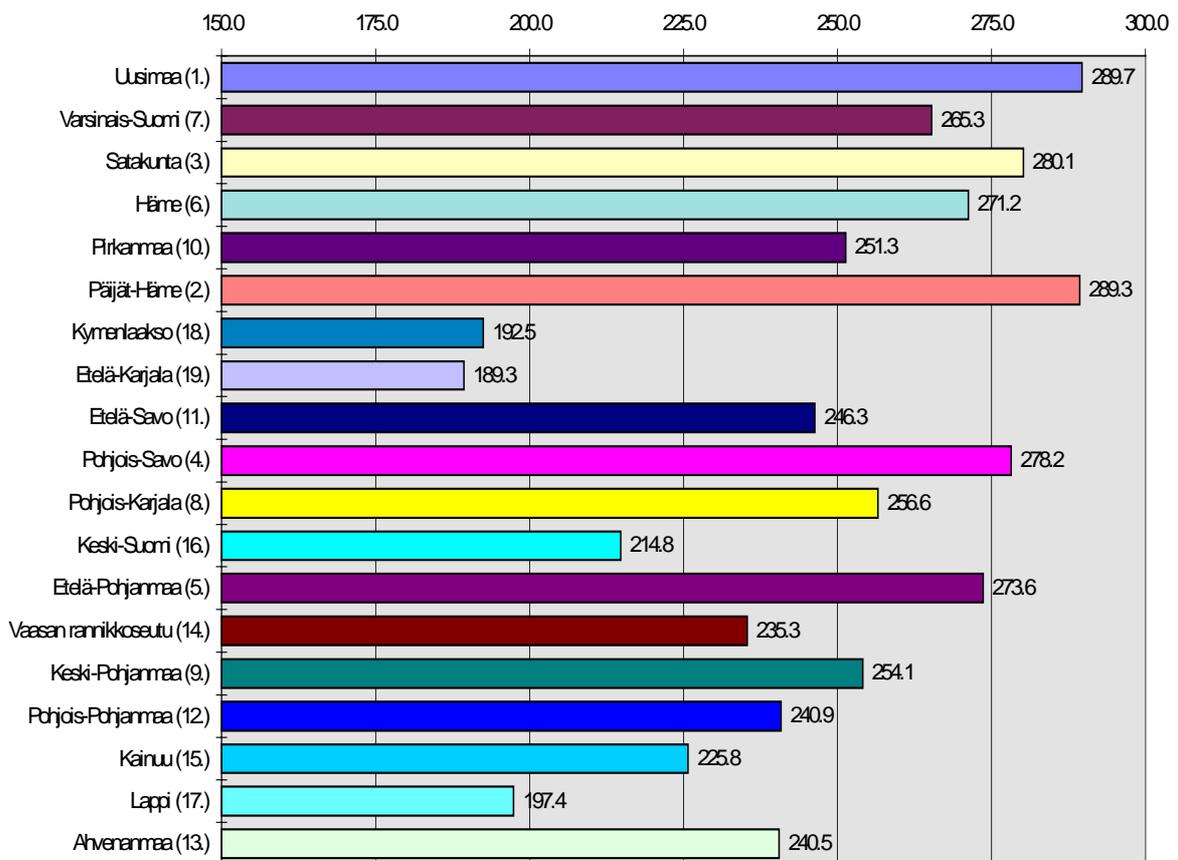


Figure 1: Index values describing the production diversification in Finnish provinces (Statistical source: Statistics Finland).

3.3. Exports orientation

The analysis of exports orientation indicates that there are remarkable differences between Finnish provinces. (Figure 2). The provinces that export the biggest share of their industrial production are Vaasan rannikkoseutu, Kainuu, Etelä-Karjala, Kymenlaakso, Lappi and Keski-Suomi. On the other hand, the provinces exporting the smallest share of their production are Etelä-Pohjanmaa, Ahvenanmaa, Häme, and Pohjois-Pohjanmaa. A typical feature of many domestic-oriented provinces is a relatively big food sector.

For many of the provinces, a potential problem is that their exports are sectorally very concentrated. A common view is that flexible, diversified and innovative economy can best safeguard exports-base in the changing markets. Still, specialisation on a traditional, perhaps even slowly growing sector can be beneficial, if a region has an absolute competitive advantage and controls a big or growing share of the markets. Besides, big changes in production structures always occur slowly, and hence the role of traditional sectors remain important at least in the short run.

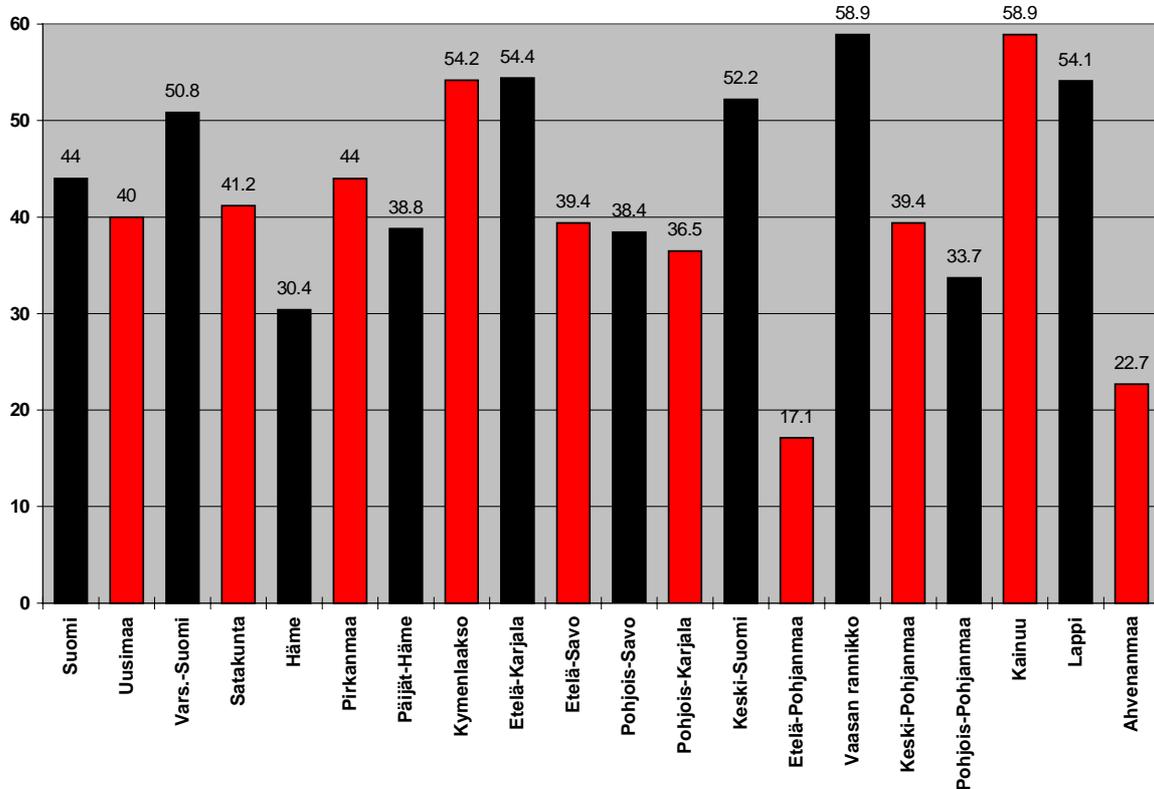


Figure 2: Share (%) of exports in the industrial production of Finnish provinces 1995
(Statistical source: Statistics Finland)

A further factor that affects the EMU-benefits is the geographical orientation of exports. More than 50% of total Finnish exports go to the EU-area. (Tullihallitus 1996). The exports are also concentrated within the EU: about 2/3 of Finland's EU-exports goes to three countries (Germany, Sweden and the United Kingdom). So, an important EMU-country Germany is also the most important trade partner of Finland. However, the shares of other EMU-countries are remarkably lower. As Sweden and the United Kingdom have decided to leave outside the EMU, a great share of Finland's EU-exports will thus go outside the common currency area also in the future. If the EMU becomes wider, and these countries decide to join in, the benefits of single currency for Finnish exporters become stronger.

3.4. Small and middle-sized enterprises (SMEs)

There are regional differences in the number of SMEs. In Finland, Ahvenanmaa and Etelä-Pohjanmaa are provinces, where the relative number and establishment rate of them is high. On the other hand, Kymenlaakso, Etelä-Karjala, Pohjois-Savo and Kainuu are provinces where the relative number of SMEs is rather low. (Kauppa- ja Teollisuusministeriö 1996).

The above numbers illustrate the number of SMEs in relation to the labour force. In absolute terms, the results become different, which can be explained by population differences. The number of SMEs is biggest in Uusimaa, Pirkanmaa and Varsinais-Suomi, although in relative terms they were not considered as the provinces of high SME-activity.

The SME-activity of the provinces also varies between sectors. The regions with most industrial enterprises are not necessarily the same as those with most service sector enterprises. Regional differences can also be big within provinces. Still, most of the enterprises in all provinces are in service sectors. Looking at the number of firms, the share of industrial enterprises is relatively low. However, in terms of employment their role is bigger, which increases the importance of their exports prospects in the EMU-markets.

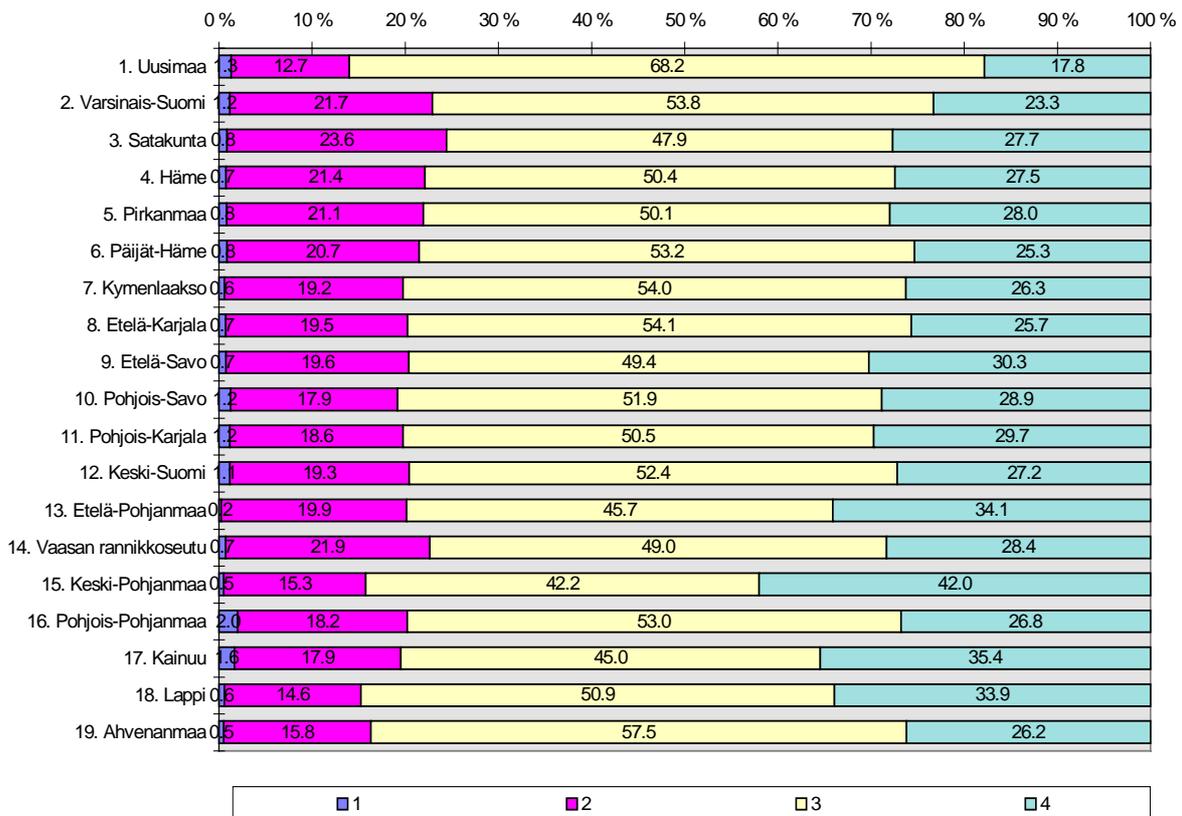
The operational environment of SMEs will change in the EMU. Often, the relative effects can also be bigger for them than for bigger enterprises. Within a common currency area exporting becomes easier, and at the same time competition increases also in traditional domestic sectors. The possible structural consequences of EMU include deepening specialisation, and on the other hand increasing intra-industry trade. In the EMU, the

relation between policy and the Finnish enterprises also changes, and the common policy will not be designed from the viewpoint of them. Competitiveness thus requires effectiveness, as well as flexibility to respond quickly to changes and potential shocks.

3.5 Competitiveness

The educational level of provinces can be measured by a special index, developed by Statistics Finland. It describes the average level of degrees in relation to population. Uusimaa is the strongest of provinces. In the year 1996, its index value is 325. It is followed by other prosperous provinces Pirkanmaa (293) and Varsinais-Suomi (292). In terms of the indicator, the weakest provinces are Etelä-Pohjanmaa (267) and Keski-Pohjanmaa (269). However, the differences between most provinces are not particularly big.

The share of top technology enterprises is relatively low in all Finnish provinces (Figure 4).



1=Top technology; 2=High middle-class technology; 3=Low middle-class technology; 4=Low technology

Figure 4: Shares of enterprises of different technology level in provinces 1995
(Statistical source: Statistics Finland).

The share of top technology enterprises is biggest in Pohjois-Pohjanmaa (2.0%), Kainuu (1.6%) and Uusimaa (1.3%). Looking at the top and high middle-class technology enterprises together, the share is biggest in Satakunta, followed by Varsinais-Suomi and Vaasan rannikkoseutu. Remarkably, in this comparison Uusimaa is the worst of provinces. However, the share of low technology enterprises is again lowest there. (Figure 4).

An important factor defining innovativeness and prosperity is research and development. At least in terms of expenditure, Uusimaa is high above the rest of the provinces. More than a half of Finland's research and development expenditure is used there. Uusimaa is again followed by Varsinais-Suomi, Pirkanmaa and Pohjois-Pohjanmaa, the shares of which are around 10%. Especially low the expenditure is in Ahvenanmaa, Keski- and Etelä-Pohjanmaa, Kainuu and Etelä-Savo. At least in the case of Ahvenanmaa this can be explained by small population. Otherwise, nevertheless, it seems that the provinces that are weak in many other respects, are also lagging behind in terms of research and development.

3.6. Summary of the EMU-sensitivity of provinces

Table 3 summarises the results by a plus/minus -analysis. A plus sign (+) means that, in terms of the factor under consideration, the province is in a relatively good position. On the other hand, a minus sign (-) means that the province is, in terms of the factor, relatively weak or in a threatful position. A neutral sign (0) means that the province is, compared with other Finnish provinces, in a relatively neutral or middle position.

The estimation of EMU-impacts is difficult. Therefore the analysis is not unproblematic. First problem is classification of factors. It is not self-clear, whether a certain value of an indicator would mean a plus sign (+), a minus sign (-), or a neutral sign (0). Here, the problem has been solved by positioning the nine (9) provinces with middle-values into the neutral (0) group. Thus, the five (5) strongest provinces get a plus sign (+) and the five (5) weakest a minus sign (-), unless the indicator values require something else.

Another problem is how to weight the different factors. The question has been solved by weighting all of them similarly. This is justified, as the reliable estimation of the actual weights is almost impossible, because the impacts of EMU depend on many unpredictable factors, like general economic development and the strength of regional business cycles.

Another problem is that in some cases the indicator values of the provinces can be very close to each other. So, if a province is in terms of several indicators just on the "right" or "wrong" side, it may give slightly too positive or negative picture of its future prospects.

Due to certain problems, the analysis is not completely exact. Still, it gives a picture of the probable direction of development. The summary table is also a simple and illustrative way to put together different factors that can affect the future prospects of provinces. Hopefully, it can raise new thoughts and be useful for the future regional development.

Uusimaa is the province with the best prospects, and it has the greatest possibilities to exploit the benefits of the EMU. The production and exports structures of the province are diversified and there is a lot of human capital and other factors supporting endogenous growth. High GDP and relatively low unemployment also provide the province with a good starting point for continuous development. All in all, it seems that the EMU can be most beneficial for the strongest Finnish provinces. ^v

On the other hand, the results show that Etelä-Savo, Kainuu, Etelä-Pohjanmaa, Keski-Pohjanmaa, Pohjois-Karjala and Etelä-Karjala are in the most threatful and risky position. In addition, there are other provinces, the prospects of which are shadowed by certain risks. The problems of weak provinces often include relatively high dependency on agriculture and public sector. Their GDP/capita is usually relatively low and unemployment relatively high. In many cases their production structure is also non-diversified. Although the EMU does not have great direct impacts on e.g. agriculture, the pressures on the sector will continue and possibly increase. Under the strict budgetary conditions of the EMU the growth of the public sector will also be slow or even negative, which decreases the employment and financing possibilities of the sector.

Table 3: Positive (+) and negative (-) factors affecting the EMU-sensitivity of Finnish provinces

FACTOR / PROVINCE	Um (1)	V-S (2)	Sk (3)	Hm (4)	Pm (5)	P-H (6)	Kl (7)	E-K (8)	E-S (9)	P-S (10)	P-K (11)	K-S (12)	E-P (13)	Vr (14)	K-P (15)	P-P (16)	Kn (17)	Lp (18)	Am (19)
<u>I Structural factors</u>																			
Similarity of production structures	+	+	+	+	+	0	-	-	0	0	0	-	0	0	0	0	-	-	0
Diversity of production structure	+	0	+	0	0	+	-	-	0	+	0	-	+	0	0	0	-	-	0
Exports orientation	0	0	0	-	0	0	+	+	0	0	0	0	-	+	0	-	+	+	-
SME –activity	0	0	0	0	+	0	-	-	0	-	0	0	+	+	+	0	-	0	+
Agriculture	+	0	0	0	+	+	+	0	-	0	-	0	-	-	-	0	0	0	0
Public sector	0	0	0	0	0	0	0	0	-	-	-	0	0	0	0	0	0	0	0
<u>II Economic differences</u>																			
GDP/capita	+	0	0	0	0	0	+	0	-	0	-	0	-	+	-	0	-	0	+
Unemployment	+	+	0	0	0	0	0	0	-	0	-	-	0	+	0	0	-	-	+
<u>III Competitiveness</u>																			
Education	+	+	-	0	+	0	0	-	-	0	0	+	-	0	-	+	-	0	0
Technology	0	+	+	0	+	0	0	0	-	0	0	0	-	+	-	+	-	0	0
<u>POSITIVE FACTORS (+)</u>	6	4	3	1	5	2	3	1	0	1	0	1	2	5	1	2	1	1	3
<u>NEGATIVE FACTORS (-)</u>	0	0	1	1	0	0	3	4	6	2	4	3	5	1	4	1	7	3	1

Provinces: (1) Uusimaa; (2) Varsinais-Suomi; (3) Satakunta; (4) Häme; (5) Pirkanmaa; (6) Päijät-Häme; (7) Kymenlaakso; (8) Etelä-Karjala; (9) Etelä-Savo; (10) Pohjois-Savo; (11) Pohjois-Karjala; (12) Keski-Suomi; (13) Etelä-Pohjanmaa; (14) Vaasan rannikkoseutu; (15) Keski-Pohjanmaa; (16) Pohjois-Pohjanmaa; (17) Kainuu; (18) Lappi; (19) Ahvenanmaa.

For each factor, the 5 most positive provinces have been given a plus sign (+), and the 5 most negative provinces a minus sign (-). Thus, for each factor, the 9 provinces in the middle have been given a neutral sign (0), unless the indicator values have required something else.

4. CONCLUSIONS

The above analyses have illustrated the future prospects of Finnish provinces from the viewpoint of EMU-sensitivity. Different factors describe the possibilities of the provinces to benefit from the EMU. On the other hand they describe the potential risks that the provinces may face.

The results indicate that there are differences between regions. As a result, their EMU-prospects and development paths may differ considerably. The strongest and most prosperous provinces will probably be in the best position also in the future. Their structures and overall economic situation enables them to best exploit the benefits of the EMU. Usually, it also seems that the potential risks of the EMU are bigger for the weak than for the strong regions. Generally, there are also considerable differences in competitiveness, and thus development potential, between the strongest and weakest provinces.

Despite different positions and prospects, the future of the provinces is not sealed. In the EMU, the risk is that the negative development trends of weak regions continue or become stronger. However, this is not necessary, and the role of regional activity is emphasised. The weak regions, as well as the strong ones, must tackle the new opportunities. On the other hand, they must efficiently try to improve their weakest points. Under the EMU-conditions, the identification of regional strengths and competitive factors becomes increasingly important. In addition, the role of regional policy is also emphasised. The development of policy mechanisms that help regional adjustment is thus an important question. In order to safeguard balanced development, effective measures are needed at the national and regional level, as well as at the EU-level. At its best the EMU can promote the development of all regions, but if the weak regions do not succeed in adjusting to the new environment, there is a growing risk of regionally imbalanced development.

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Endnotes:

ⁱ Tervo et al. (1994) estimated the probable regional impacts of Finland's EU-membership. Their main result was that in the EU the regional differences in Finland would probably increase. See also Tervo 1994.

ⁱⁱ Kajaste (1990) estimated the integration sensitivity of different sectors. The weak regions included districts of Mikkeli and Pohjois-Karjala, areas in Keski- and Etelä-Pohjanmaa, Pirkanmaa and Satakunta, as well as the peripheral area of Uusimaa. The results concentrate on the effects of the common market and common trade policies, and therefore they cannot be directly generalised into the EMU-conditions.

ⁱⁱⁱ In the growth and stability pact, the EMU countries have agreed that the Maastricht fiscal criteria become a permanent rule, and expansionary fiscal policy can lead to sanctions.

^{iv} Other similar analyses have come to the same conclusion. The Nordic countries are structurally most similar to Finland, whereas the big Central European economies are very different from Finland (E.g. Kotilainen, Alho & Erkkilä 1994; Ahonen & Pyyhtiä 1996).

^v It must be stressed that there are also great differences within provinces. A good example of this is Pohjois-Pohjanmaa. The overall situation of the province does not look particularly good. Still, Oulu-region is one of the most prosperous areas in Finland, and the future prospects of the area are very promising. This emphasises the mosaic model of regional development. (See Illeris 1993).