

THE RURAL ECONOMIES IN THE EU-ACCESSION COUNTRIES: DO EU AGRICULTURAL AND STRUCTURAL POLICIES NEED TO BE ADJUSTED?

Klaus Frohberg, Steffen Abele

INTRODUCTION

During transition from socialist planned to market economies in Central and Eastern Europe, all sectors had to adjust to a new economic and institutional environment. This also holds for the agricultural sector. Its output in the EU-accession countries (ACs) declined sharply over the first five years of the transition period and is now slowly recovering.

The fate of rural areas is closely linked with the destiny of agriculture, as they were and still are in most ACs affected by agricultural production, be it in large enterprises or numerous small holdings. The transition process has left many people who formerly worked in agriculture unemployed. Moreover, the social structure of rural areas that collective farms provided has been broken up. The decay of rural areas was the consequence, resulting in migration of the younger and skilled people into urban centres, the shortfall of a new and the deterioration of an existing infrastructure, subsistence agriculture and barter systems in many ACs (Abele et al. 2001).

RURAL ECONOMIES IN CENTRAL AND EASTERN EUROPEAN COUNTRIES (ACs)

The Economic Situation in Rural Areas of ACs

Rural areas weigh heavily in the ACs if judged by the share they reach in total area and population (see Table 1). Rural area is approximated by agricultural land. Since land used for forestry is not included, the percentages indicating rural area will be even understated. This is especially the case in countries

Table 1. The Significance of Rural Areas in ACs

Country	Total area in km ²	Agricultural land ¹⁾	Share of population living in rural areas (%)
Bulgaria	110,910	81.4	43.6
Czech Republic	78,866	54.3	75.9
Estonia	45,227	31.0	30.0
Hungary	93,030	67.0	73.5
Latvia	64,582	39.0	31.0
Lithuania	65,300	54.0	31.8
Poland	312,680	59.0	38.1
Romania	238,391	89.0	45.1
Slovak Republic	49,035	50.0	30.0
Slovenia	20,256	43.0	57.3

¹⁾ In % of total, for Bulgaria: Share of rural areas in % of total

Source: FAO Statistical Database and European Commission, DG 6 (2000)

where forestry holds a large share, as in Estonia and Slovenia.

To gain a deeper insight into the economic problems of rural areas, some key information on employment, income, sectoral structure and regional location is provided in Table 2. Looking at unemployment, income and regional location, one finds evidence in support of the classical point of view that economic integration – indicated by market access, infrastructure and the exchange of goods, factors and services – and economic wealth are mutually dependent, as it can be observed that the more integrated the regions the better their economic performance. For almost every country it can be said that those regions which border the EU have the highest income and the lowest unemployment. This implies that access to foreign markets with a high purchasing power, be it through land or by sea (which is the case for the Baltic countries and Romania, where the coastal areas are in the best economic situation) increases economic wealth (European Commission 2000a). This suggests that improving market access by fostering infrastructure should have a high priority in the policy portfolio. The regions of Poland adjacent to East Germany do not show this effect. This might be due to the fact that East Germany's economic distress could not be alleviated due to re-unification and cannot offer the huge purchasing power or employment opportunities that would be

Table 2. Structural Data of Rural Areas in ACs

Country ¹⁾	Popula- tion density in 1998	Share of agricultural labour force in 1999	GDP per capita relative to EU	Unem- ployment rate in 1999	Partic- ipation rate	Location indica- tor ²⁾
	Persons per km ²	%	%	%	%	
Estonia, III	33.3	8.8	37.2	11.7	62.0	
<i>Pohja Eesti</i>	123.5	2.8	n.a.	9.1	n.a.	u,m
<i>Kesk Eesti</i>	16.1	25.1	n.a.	10.3	n.a.	r
<i>Kirde Eesti</i>	39.7	8.0	n.a.	12.3	n.a.	m
<i>Lääne Eesti</i>	16.5	17.4	n.a.	5.8	n.a.	m,r
<i>Louna Eesti</i>	28.2	10.5	n.a.	9.8	n.a.	e
Latvia, II	37.9	17.2	27.7	13.7	59.5	
Lithuania, II	56.7	21.4	31.0	10.2	65.0	
Poland, II	123.7	18.1	36.1	12.3	57.5	
<i>Dolnoslaskie</i>	149.5	9.6	36.0	13.8	56.1	u
<i>Kujawsko-Pomorskie</i>	116.9	20.0	33.2	15.2	56.2	r
<i>Lubelskie</i>	89.2	35.6	26.1	12.6	58.9	e
<i>Lubuskie</i>	73.1	7.1	32.9	15.3	51.9	w
<i>Lodzkie</i>	146.2	23.0	31.9	12.7	59.4	u
<i>Malopolskie</i>	212.4	21.2	32.8	9.7	59.9	6
<i>Mazowieckie</i>	142.3	18.8	52.7	9.2	61.6	u
<i>Opolskie</i>	115.8	10.1	31.8	12.1	54.7	r
<i>Podkarpackie</i>	118.4	27.1	27.4	16.1	56.8	e
<i>Podlaskie</i>	60.6	34.0	27.5	11.4	58.8	e
<i>Pomorskie</i>	119.5	9.2	35.6	13.0	57.3	m,u
<i>Slaskie</i>	397.1	3.6	40.3	9.7	54.8	u
<i>Swietokrzyskie</i>	113.6	35.3	27.8	15.6	57.6	r
<i>Warminsko-Mazurskie</i>	60.5	14.7	27.7	21.3	51.7	e,r
<i>Wielkopolskie</i>	112.4	18.9	38.1	9.8	59.5	u
<i>Zachodniopomorskie</i>	75.6	11.4	35.2	14.9	53.8	w,u
Czech Republic, II	130.4	5.1	60.3	8.5	65.6	
<i>Prague</i>	2,396.8	0.3	114.7	3.2	73.1	u
<i>Central Bohemia</i>	100.8	5.6	46.9	6.7	67.1	u
<i>Southern Bohemia</i>	61.7	8.3	57.4	6.4	67.6	w
<i>Western Bohemia</i>	78.8	5.5	52.9	12.6	61.7	w
<i>Northern Bohemia</i>	151.4	3.7	52.7	7.3	66.3	w
<i>Eastern Bohemia</i>	109.7	8.1	53.4	8.8	65.4	r
<i>Southern Moravia</i>	136.4	6.5	51.5	9.7	64.4	w
<i>Northern Moravia</i>	177.4	4.3	56.6	13.7	59.9	e
Slovak Republic, II	109.9	8.1	48.6	16.4	60.8	
<i>Bratislavsky Kraj</i>	99.4	3.4	99.4	5.9	71.9	u,w
<i>Zapadne Slovensko</i>	44.3	9.1	44.3	15.1	61.5	u
<i>Stredne Slovensko</i>	42.1	8.7	42.1	17.6	60.9	r
<i>Vychodne Slovensko</i>	39.2	8.9	39.2	21.9	55.0	e
Hungary, II	108.5	6.8	49.0	6.9	55.4	
<i>Central Hungary</i>	412.9	2.0	72.4	5.2	59.6	u
<i>Central Trans-Danubia</i>	98.7	7.0	48.0	6.0	58.5	r
<i>Western Trans-Danubia</i>	88.3	7.1	54.1	4.4	63.0	w
<i>Southern Trans-Danubia</i>	69.2	10.0	37.8	8.2	52.7	r
<i>Northern Hungary</i>	95.0	5.4	33.3	11.4	48.1	r
<i>Northern Great Plain</i>	86.2	9.2	33.1	10.1	48.6	e
<i>Southern Great Plain</i>	73.7	15.1	37.4	5.7	54.7	r

Country ¹⁾	Population density in 1998	Share of agricultural labour force in 1999	GDP per capita relative to EU	Unemployment rate in 1999	Participation rate	Location indicator ²⁾
	Persons per km ²	%	%	%	%	
Slovenia, III	97.6	11.5	68.8	7.3	62.5	
<i>Pomurska</i>	93.7	27.6	n.a.	10.1	n.a.	e
<i>Podravska</i>	147.1	11.2	n.a.	12.8	n.a.	u
<i>Koroska</i>	71.0	15.8	n.a.	6.3	n.a.	w
<i>Savinjska</i>	107.0	15.1	n.a.	9.2	n.a.	u
<i>Zasavska</i>	176.5	3.5	n.a.	10.0	n.a.	u
<i>Spodnje-posavska</i>	77.2	19.0	n.a.	8.4	n.a.	r
<i>Dolenjska</i>	63.7	16.7	n.a.	4.7	n.a.	r
<i>Osrednjeslovenska</i>	145.3	6.3	n.a.	6.1	n.a.	e
<i>Gorenjska</i>	91.4	8.1	n.a.	5.9	n.a.	u
<i>Notranjsko-kraska</i>	34.5	9.5	n.a.	8.6	n.a.	w
<i>Goriska</i>	51.5	10.8	n.a.	5.0	n.a.	r
<i>Obalno-kraska</i>	98.2	6.4	n.a.	5.9	n.a.	w
Romania, II	94.4	44.0	28.2	6.2	65.0	w,m
<i>Nord-Est</i>	103.8	57.7	21.6	7.1	67.9	r
<i>Sud-Est</i>	82.5	43.9	28.4	7.3	60.8	m
<i>Sud</i>	101.6	50.7	25.3	6.3	67.5	r
<i>Sud-Vest</i>	83.0	58.6	26.5	5.4	70.6	r
<i>Vest</i>	63.6	39.5	32.4	6.6	63.9	r
<i>Nord-Vest</i>	83.6	41.6	26.0	5.6	64.0	r
<i>Centru</i>	77.6	33.2	31.8	7.1	61.8	u
<i>Bucuresti</i>	1,243.3	6.5	40.3	3.4	62.0	u
Bulgaria, I	74.3	24.4	22.3	17.0	54.1	
<i>Sofia Stolitsa</i>	955.9	2.7	23.1	9.9	n.a.	u
<i>Severna Balgarija</i>	66.0	30.8	22.2	20.7	n.a.	r
<i>Yuzhna Balgarija</i>	63.1	25.4	22.3	16.5	n.a.	w
EU-15	117.4	4.5	100.0	9.4	62.8	
Germany	229.8	2.9	107.7	8.9	65.4	
Greece	79.9	17.8	66.0	11.7	56.9	

¹⁾ Figures in Roman after the country refer to NUTS-level of subsequent regions, for Estonia and Slovenia: NUTS III data for 1st quarter of 1999

²⁾ Region classification: **u** = urban or peri-urban, **r** = remote, **e** = eastern border region, **w** = western border (EU-border) region, **m** = maritime region

Source: European Commission (2000b); European Commission (2001b)

necessary to substantially foster economic growth in the Polish border regions.

Another important factor for economic wealth is the proximity to urban centres. This holds especially now for Poland where regions around cities like *Warsaw*, *Katowice*, *Krakov* or *Szczecin* (which is a particular region, as it is urban, close to the western border, and maritime) are those with the highest income. The same holds for the Budapest region in Hungary or that of

Bratislava in the Slovak Republic where the highest incomes in the ACs (at NUTS II level) are found.

On the other hand, regions with a low population density often, though not always, suffer from insufficient income. Good examples are the Baltic countries and the Balkan Region, i.e. Romania and Bulgaria (European Commission 2000a). However, the causal relationship between population density and income is not as strict as might be expected. Of course, high income, e.g. in urban centres, attracts more people. On the other hand, it seems that regions with a low population density attract less private and public investment interest, so that low income in regions with low population densities could indicate a vicious circle.

Agriculture is of specific significance for most of the rural areas in ACs. Thus it is interesting to look at the relations of income, employment and the share of agriculture in the regional economies. In all ACs agriculture employs relatively more of the total labour force than is the case in the EU-15 where it reaches an average of 4.5 %. By and large, the correlation between agricultural employment share and income in rural areas is negative. An exception is Slovenia, where a high share in agricultural employment is accompanied by high income because government support of agriculture is, relatively speaking, very high – exceeding even that of the EU-15. On the other hand, some regions in Hungary are also an exception since they show low income in spite of a small employment share in agriculture. Neither can be a unique pattern identified between employment by agriculture and the share of people without work. There are regions where a small part of the work force without jobs and high agricultural shares are found (e.g. in Romania, Hungary or the Czech Republic), and industrialised regions with high unemployment rates (like the Northeast of the Czech Republic). This implies that the economic performance of agriculture – as that of other sectors – strongly depends on its productivity, which is also influenced by natural conditions and its institutional environment. The only countries where agriculture strongly dominates in terms of employment and, at the same time, low income and high unemployment rates can be observed

are Poland (which is known for its fragmented farm structure) and Bulgaria.

Human capital is a decisive factor of development. Amount and scope of skills determine the flexibility of workers to move from one sector to another if necessary. Thus it can be said that the higher the endowment with human capital, the smoother and quicker can structural adjustment via re-allocation of labour be achieved.

Table 2.3 shows the endowment of the regions with human capital. As can be seen from this table, about two thirds of the population between 25 to 59 years of age have a medium level of education, the rest is shared evenly between low and high levels. There is relatively little variation across the ACs, neither between countries nor across regions within countries. However, the situation differs from that in the EU-15 where education is more evenly distributed between all three levels. Moreover, there seems to be evidence that the type of education offered in transition countries differs from that in the EU-15. Technical and natural science gained high priority in the ACs, while subjects like economics, marketing and management were neglected or not taught at all. This might make the development towards a post-industrialised economy with a dominant tertiary sector more difficult due to lack of appropriate skills.

A sector for which structural adjustment with respect to labour force is particularly important is the agricultural sector in CEEC, where the sharp adjustment of terms of trade since the beginning of transition has induced an entire re-allocation of factors. Of these factors, labour is the most sensitive one, as off-farm income opportunities are scarce, especially in rural areas. Table 4 depicts education level of the population in the agricultural sector or rural areas (as databases differ across countries) for selected ACs. The majority of these people received a medium or low level education. Though the figures in this table are not strictly compatible with those in Table 3, some conclusion might nevertheless be drawn. Education levels of the total population aged between 25 and 59 years are relatively evenly distributed across all regions within a country including rural areas. According to Table 4, the farming population received

Table 3. Education Level of Persons Aged between 25 and 59

Country, NUTS level of subsequent regions	Education level of persons aged 25-59 in 1999 ¹⁾ (in % of age class)		
	Low	Medium	High
Estonia, III	12	58	30
Latvia, II	13	68	18
Lithuania, II	n.a.	n.a.	n.a.
Poland, II	19	70	11
<i>Dolnoslaskie</i>	18	70	12
<i>Kujawsko-Pomorskie</i>	21	70	9
<i>Lubelskie</i>	22	67	11
<i>Lubuskie</i>	17	75	9
<i>Lodzkie</i>	24	66	10
<i>Malopolskie</i>	16	69	15
<i>Mazowieckie</i>	18	68	14
<i>Opolskie</i>	21	72	7
<i>Podkarpackie</i>	18	71	12
<i>Podlaskie</i>	26	63	12
<i>Pomorskie</i>	17	71	12
<i>Slaskie</i>	14	75	10
<i>Swietokrzyskie</i>	21	69	11
<i>Warminsko-Mazurskie</i>	24	67	9
<i>Wielkopolskie</i>	18	72	11
<i>Zachodniopomorskie</i>	22	69	9
Czech Republic, II	13	76	11
<i>Prague</i>	6	70	24
<i>Central Bohemia</i>	13	78	9
<i>Southern Bohemia</i>	12	78	11
<i>Western Bohemia</i>	18	74	8
<i>Northern Bohemia</i>	13	78	9
<i>Eastern Bohemia</i>	12	76	12
<i>Southern Moravia</i>	13	78	9
<i>Northern Moravia</i>	14	77	9
Slovak Republic, II	10	79	11
Hungary, II	24	61	15
<i>Central Hungary</i>	17	60	22
<i>Central Trans-Danubia</i>	23	64	14
<i>Western Trans-Danubia</i>	23	65	13
<i>Southern Trans-Danubia</i>	27	63	10
<i>Northern Hungary</i>	28	60	12
<i>Northern Great Plain</i>	30	58	12
<i>Southern Great Plain</i>	29	60	11
Slovenia, III	24	60	16
Romania, II	29	62	9
<i>Nord-Est</i>	33	60	7
<i>Sud-Est</i>	30	60	10
<i>Sud</i>	33	60	7
<i>Sud-Vest</i>	28	65	7
<i>Vest</i>	30	61	9
<i>Nord-Vest</i>	28	64	9
<i>Centru</i>	26	67	7
<i>Bucuresti</i>	17	63	19
Bulgaria, I	n.a.	n.a.	n.a.
EU-15	36	43	21
Germany	18	58	24
Greece	49	33	18

n.a.: not available ¹⁾ 1998 data according to Slovak Republic (2000)

Source: European Communities (2001b)

Table 4. Education in the Agricultural Sector and Rural Areas for Selected ACs

Country/Level	Percentage of agricultural/rural (urban values in brackets)		
	Low	Medium	High
Poland	54 (31)	44 (59)	2 (10)
Latvia ¹⁾	37 (13)	59 (68)	4 (18)
Slovak Republic ¹⁾	25 (10)	70 (79)	5 (11)
Czech Republic ¹⁾	52 (13)	35 (76)	13 (11)
Romania ²⁾	75 (29)	24 (62)	1 (9)

¹⁾ Comparison of agricultural and overall education (in brackets)

²⁾ Comparison Rural/overall values

Source: Polish Ministry of Agriculture and Rural Development (2000); Latvian Ministry of Agriculture (2000); European Commission (2001); Republic of Romania (2000); European Commission (2001b); Slovak Republic (2000); Czech Republic, Ministry of Regional Development and Ministry of Agriculture (2000) and European Commission (2001b)

less higher and more lower education. Thus, there seems to be a problem with education (human capital) at sectoral level rather than in rural regions.

Competitiveness of Agriculture in ACs

Agriculture played an important role in buffering economic hardships which people faced in many of the ACs during the initial years of transition. This holds especially for Romania and Bulgaria, where people have ever since been relying on subsistence farming and informal rural social security systems like families and kinship. It further suggests that there was already a great need for stronger rural development in ACs in the early years of transition. This has not improved since then.

Though agriculture is the dominant sector in rural areas, to rely solely on it for strengthening these regions would certainly be ill advised. Agriculture is not expected to reach growth rates required for employing further the work force it currently offers jobs, not to speak of absorbing additional labour. Neither in the remaining pre-accession years nor after joining the EU will the conditions be as favourable as that. The competitiveness of agriculture in the ACs with that in the EU-15 is rather good, but

food processing is an important factor limiting its expansion. Only Slovenia has entered a path of development of gross agricultural output which shows an upward trend. For all other countries, the value of production is basically constant. Other evidence is shown by the negative balance of trade in agricultural goods and food commodities that all ACs, with the exception of Hungary, Bulgaria and – just recently – Romania, have with the EU-15. Analysis of these trade data reveals that the deficit is mainly in the processed items.

On the other hand, there are still a number of additional factors that hamper agriculture's competitiveness in the ACs. To these belong the macro-economic environment which is often not stable enough to be conducive for sustained growth of the agricultural sector. And especially, monetary policies which led to an appreciation of the real exchange rate in almost all ACs against their counterparts in the EU-15 also caused these negative trade balances. In addition, sluggish income growth of consumers often put pressure on domestic prices for agricultural goods because of small changes in the overall demand for food.

Other impediments to competitiveness are inappropriate institutions which often still lack the necessary adjustment to market and democratic conditions as well as the monitoring and enforcement necessary to make them function. A rather long list can be provided in this respect. It encompasses institutions at all levels: political, market and enterprise level. The need for improving the education system has been already referred to above. Regulations fostering the exchange of goods and services (market functioning) is another problem where progress is still required. For example, land markets are not yet well developed in many of the ACs. But they are very important for the adjustment in farm structure required for strengthening competitiveness.

As Table 5 reveals, the majority of farms in most of the ACs is of small size. The exceptions are Slovakia and the Czech Republic (not shown in this table). Though acreage farmed is not the best indicator of competitiveness, it is expected that small farms have to grow in the future for economic survival. Ex-

Table 5. Farm Size in Selected ACs

		Unit	Farm size, ha					
Estonia 1999	Farms	1000	below 5	5-20	20-50	50-100	over 100	total
		%	1.04	3.66	2.52	0.85	0.87	8.95
	Land	1000 ha	12	41	28	10	10	100
		%	2.29	43.15	78.26	57.92	491.19	672.81
			0	6	12	9	73	100
Latvia 1999	Farms	1000	below 5	5-20	20-50	50-100	over 100	total
		%	37.59	55.92	24.19	5.50	1.67	124.86
	Land	1000 ha	30	45	19	4	1	100
		%	100	628	729	369	429	2254
			4	28	32	16	19	100
Lithuania 1998	Farms	1000	below 5	5-20	20-50	50-100	over 100	total
		%	355	128	45	9		537
	Land	1000 ha	66	24	8	2	0	100
		%	988	1274	568	485		3315
			30	38	17	15	0	100
Poland 1998	Farms	1000	1-2	2-5	5-10	10-15	over 100	total
		%	439	691	503	206	169	2008
	Land	1000 ha	22	34	25	10	8	100
		%	630	2263	3575	2499	4969	13937
			5	16	26	18	36	100
Hungary 2000	Farms	1000	below 1	10	10-50	50-100	over 100	total
		%	956	3	2	1	5	967
	Land	1000 ha	98.89	0.31	0.22	0.09	0.49	100
		%	259	1050	1372	508	3260	6448
			4.02	16.28	21.28	7.87	50.55	100
Slovakia¹⁾ 1999	Farms	1000	< 1001	1001-1500	1501-2000	2001-2500	over 2500	total
		%	610	0	451	105	218	1384
	Land	1000 ha	44	0	33	8	16	100
		%	297	0	607	219	767	1890
			16	0	32	12	41	100
Romania	Farms	1000	below 5	5-20	20-50	50-100	over 100	total
		%	3234	713	0	0	1	3947
	Land	1000 ha	82	18	0	0	0	100
		%	3993	5190	1	2	1340	10525
			38	49	0	0	13	100
Bulgaria	Farms	1000	below 0.5	0.5-1.0	1.0-5	5-10	over 10	total
		%	1347	255	286	29	6	1924
	Land	1000 ha	70	13	15	1	0	100
		%						6203
							0	

¹⁾ Only co-operatives and other large scale-enterprises are reported.

Source: National Statistics

Table 6. Agricultural Work Force in the ACs over the Period 1995 to 1999 (in thousand) and Its Change (in %)

Land	1995	1996	1997	1998	1999	Changes from 1995 to 1999 (in %)
Estonia	56	52	45	44	44	-22
Latvia	201	195	172	164	154	-23
Lithuania	390	399	363	355	335	-14
Poland	3,260	3,480	3,370	3,282	2,985	-8
Czech Republic	312	301	276	264	238	-24
Slovakia	201	191	183	160	157	-22
Hungary	295	302	288	279	270	-8
Slovenia	92	89	108	109	93	1
Romania	3,187	3,249	3,320	3,384	3,349	5
Bulgaria	770	768	769	796	817	6
ACs	8,764	9,027	8,893	8,835	8,441	-4

Source: National Statistics

panding the land area cultivated is one option to achieve this. Without properly functioning land markets this may become very difficult.

Looking at changes in farm structure over time, it can be observed that average size increases slowly after declining substantially when transition was initialised. This growth takes place mainly in smaller farms. The large enterprises with hired labour are still shrinking in size (and, in some countries, also in number). This shows that these firms have reached a size where it makes sense to become smaller because of diseconomies of scale. The increase in costs due to lower scale efficiency is offset by the savings occurring due to fewer transactions.

The small structure of farms is also reflected by the relatively large labour force employed in agriculture. Only the Czech Republic, Slovenia, Estonia, Hungary and Slovakia reached a level of 5 to 7 % which is closer to the EU average. The remaining countries are far above. In 1999, Romania had a share of 35 %, Bulgaria 25 % and Poland 18 %. In terms of persons engaged in agriculture with economic activities, Poland and Romania together reach 6.3 million and the remaining ACs 2.1 million (see Table 6). In the EU-15, about 7 million persons are employed in agriculture, which roughly cultivates double the

amount of land and achieves an output volume of about 4 times higher than do farmers in the ACs. The data about work force are not precisely comparable since they only show the number of persons regardless of the amount of work put into agriculture. Nevertheless, this comparison shows that, rather than keeping its current labour force or even employing more persons, agriculture will shed labour.

Many of those people will seek employment in rural areas. Hence, rural development will have to focus on creating new jobs in other sectors of the rural economy. The question is what kind and how much of governmental assistance is required to achieve this.

STRUCTURAL POLICIES AND PRE-ACCESSION AID FOR THE ACs

Aims and Requirements of Structural and Regional Policy

1. Theoretical Considerations

A set of structural policy instruments exist which are implemented with the aim of influencing the sectoral structure of the economy. Their ultimate purpose is to induce economic growth for levelling off any sectoral or regional disparity. Another effect of these policies can be to stabilise the economy by preserving rather than changing the economic structure. Those policies which are designed to bring about structural change remove bottlenecks and impediments to factor mobility. Other instruments such as unemployment benefits can be used more directly for reducing social divergence. Structural policies, as a consequence, address both efficiency and equity aspects of regional economies. They can, moreover, feature as regional and sectoral policies, which are often closely associated (Peters 1996). Thus, we refer to regional policies as a subset of structural policies in general.

As a consequence of their broad scope, regional policies are intensively discussed amongst the advocates of different economic theories. Whereas those of the neo-classics argue that under the conditions of perfect markets and factor mobility, regional divergences are balanced by the means of market prices,

others justify regional policies for different reasons: the polarisation theory deals with institutional frictions on markets, like monopolies, that lead to divergence and polarisation. It thus rationalises regional policies by the argument of improving allocative efficiency. The public good theory assumes market failure for the case of public goods like, e.g. infrastructure, and stresses the need that these goods be provided by the public and aims at improving the allocation of public resources. More recent theories like the new foreign trade and the new growth theory assume path dependencies. According to these theories, phenomena like regional differences in capital accumulation and economies of scale are explainable as is the growth which goes with them. As these developments are dependent on the initial state of the respective region, and therefore path-dependent, regional policy measures are justified with arguments of equity (Krieger-Boden 1995).

2. Efficiency of Regional Policies: Subsidiarity and Participation

Efficiency requires the optimal allocation of scarce resources in the production and distribution of goods and services. This holds not only for private goods and services but also for public goods. When considering regional policies as public goods, we have to take into consideration the problems related to them. Free riding and the problems arising from it in revealing the demand for public goods are well-known difficulties of regional policy making. They arise in designing appropriate regional policies because of differences found across regions with regard to both preferences for public goods and costs for providing them. Graphs 1 and 2 depict the inefficiencies created and the related welfare losses when policies are indiscriminately applied to regions with different economic conditions (Urfei 1999).

Both graphs show a central policy authority having the power to determine the quantity of the public good to be produced which is consumed in both regions. With increasing quantity marginal utility declines while constant marginal costs prevail for supplying the public good. In Graph 1 it is assumed that the marginal utility as it is estimated by the central agency, MU_0 , differs

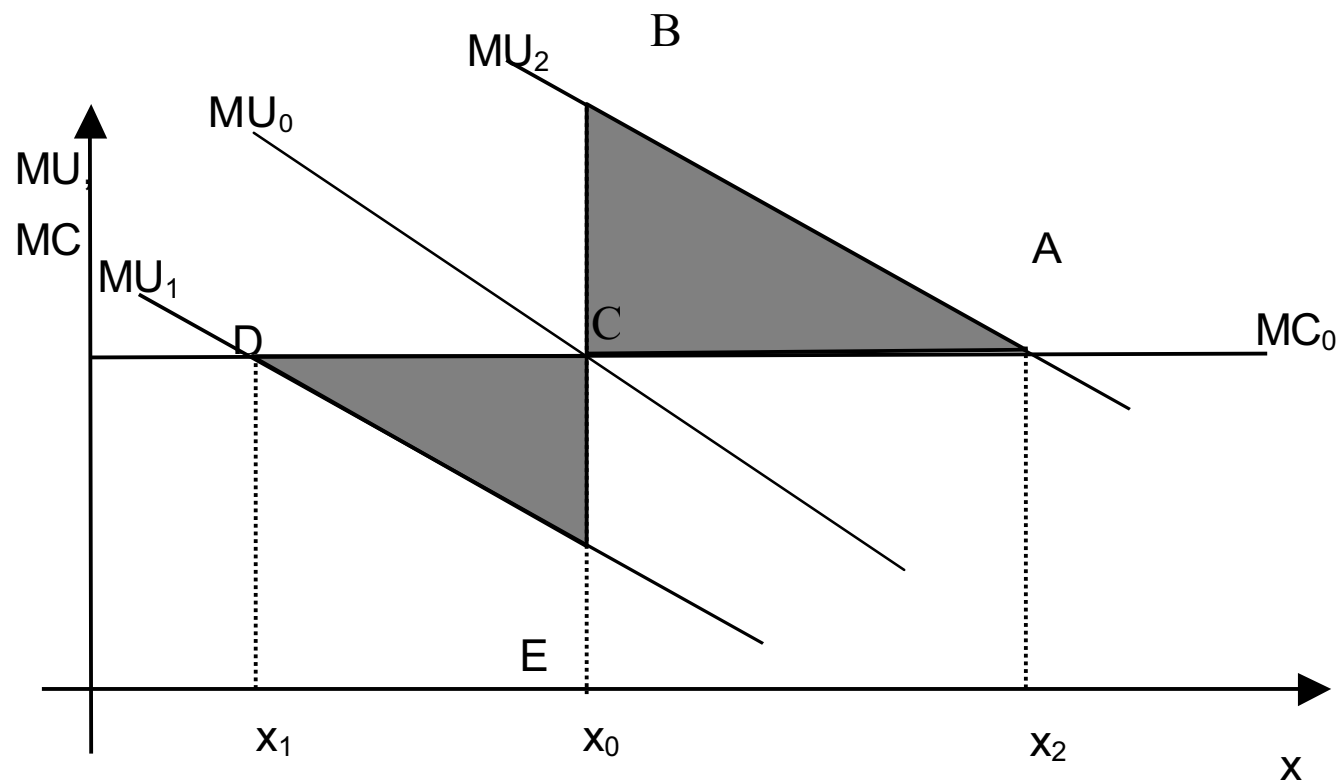
from those found in the two regions, MU_1 and MU_2 . With regard to marginal costs, it is supposed that they are in both regions identical. With the one of the central authority, MC_0 in Graph 2 the assumptions are reversed. The marginal cost curves of the regions, MC_1 and MC_2 , are not the same as that of the central authority while the marginal utility curves are identical for the two regions. The authority sets the quantity of the public good at x_0 where marginal costs, MC_0 , equal marginal utility, MU_0 . In both cases, the decision leads to welfare losses. If the two regions were allowed to decide for themselves, they would produce and consume an amount at which their marginal costs would equal their marginal utilities.

In Graph 1, region 1 having marginal utility function MU_1 loses the area DCE because at x_0 its marginal utility is below marginal costs. For region 1 the optimal amount of the public good is x_1 . Region 2 could gain in welfare according to the triangle ABC if it were allowed to supply and consume the amount x_2 of the public good. At this point its marginal utility equals marginal costs.

In Graph 2 the opposite situation is depicted. The central policy authority is assumed to have marginal costs, MC_0 , which differ from those prevailing in the two regions for which it decides on the provision of the public good. On the other hand, marginal utility, MU_0 , does not differ by assumption between the two regions. The optimal amount of the public good produced according to the decision by the central policy authority causes inefficiencies and welfare losses in the two regions because they would put out and consume different quantities. For region 1 volume x_1 and for region 2 volume x_2 would be optimal. The central authority's decision consequently induces welfare losses of the triangles ABC and CDE to region 1 and region 2, respectively.

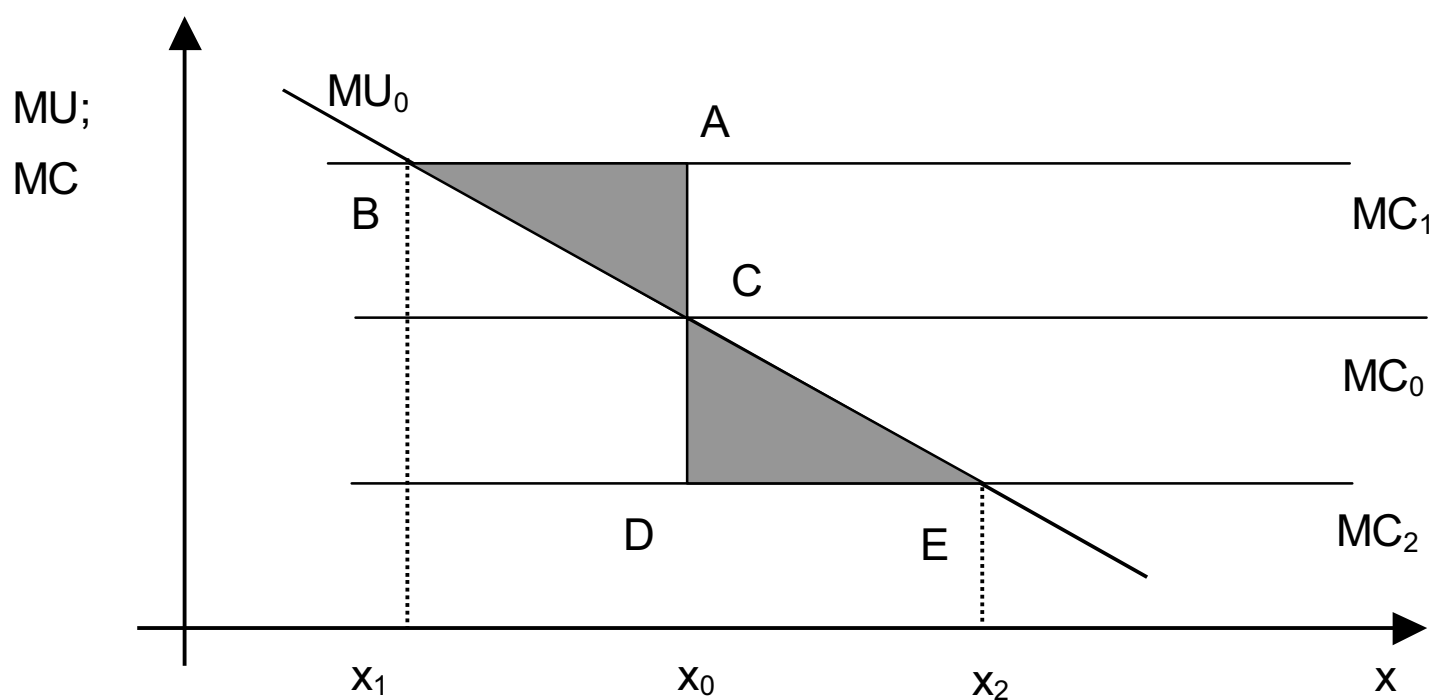
The situation shown in these graphs can be avoided by two principles. The principle of participation helps to properly reveal the demand for public goods. This means that regional interest groups are integrated in the decision-making process for the respective regions' policies. To avoid an inappropriate assessment of marginal costs, the principle of subsidiarity is

Graph 1. Efficiency Losses by Centrally Provided Public Goods and Regionally Diverging Preferences



Source: Adapted from Frey, Kirchgaessner (1994)

Graph 2. Efficiency Losses through Central Provision of Public Goods in the Case of Interregionally Diverging Marginal Costs of Provision



Source: Taken from Urfei (1999: Fig. 3)

applied which, applied to regional decision making, says that local communities are self-responsible for their activities as long as they are able to be so. Both principles are stressed in the EU structural and regional policies (European Communities 1999). Moreover, methods for the analysis of rural areas have to be applied taking into account the high variability both of regional characteristics and of regional demand for policies and services (Abele and Kanacs 2000).

Originally coined by the Catholic Church as its social doctrine, subsidiarity nowadays plays quite a prominent role in the policy debate within and outside the EU. With regard to the Community, it applies when the focus is on whether the EU, the member states or their regions shall be responsible for policy design and implementation. It can be applied between any of them. The underlying premise is that problems of information and preference revelation exist and differences in regional and local preferences among voters can be found. Under these conditions, authorities at an administrative level above the geographical units for which the decision is to be made are usually not able to make an optimal choice with regard to the supply of a public good.

3. Setting an Analysis Framework for Regional Policies

The preceding two sections lead to the requirements for efficient regional policies as stated by Fiege and Abele (2001).

(1) No subsidising for stabilisation purposes: none of the above-mentioned theories considers this as feasible. Much less problematic is the provision of public goods, although also for these the above-mentioned requirements of efficiency hold. (2) Policies have to be justified by the characteristics of the regions: policies aiming at equity have to be induced by proved path dependency, policies aiming at allocative efficiency have to prove market failure, be it for the case of public goods or the case of market frictions like monopolies. (3) Policies have to be planned and implemented in a participatory way, guided by the principle of subsidiarity, decentralised and with respect to specific regional characteristics. (4) Policies have to foster organisations that are capable of participating in regional development measures.

The Significance of Structural Policies in the EU until 2006

Structural policies in the European Union follow the above-mentioned requirements and criteria for efficiency mainly in the field of participation, sustainability and subsidiarity. Care is to be taken that investments supported by the EU do not crowd out regional and local investments by the principle of additionality: EU funds must not replace local investments. Nonetheless, structural policies by the EU are often criticised for their subsidy character.

In the recent planning period from 2000-2006, structural policies have undergone a drastic adjustment compared to the previous ones implemented from 1994 to 1999. Objectives have been reduced from seven to three, and the eligible population has been cut from more than 50 to about 40 percent of the European Union. But the share of structural policy funds in the EU budget is increasing, so that structural policies have now become the “second pillar” of the EU policies besides the CAP, which has in the recent years slowly but steadily lost in significance. This might be due to the declining acceptance by the EU population, but also to the conflicts that arise between the WTO regulations and the CAP.

At present, structural policies in the EU aim at three types of objective regions. Objective 1 regions are characterised by a per capita income of less than 75 percent of the EU-average. In this type of region, about 70 percent of the funds are allocated. Objective 2 is designed for regions with the need for socio-economic restructuring, and objective 3 is dedicated to the improvement of human capital and social cohesion without aiming at specifically defined regions.

Besides the “objectives,” there are the so-called community initiatives like URBAN, INTERREG and others.

For financing these measures, several funds have been set up: the European Regional Development Fund, the European Social Fund and the Financial Instrument for Fisheries Guidance. The European Agricultural Guarantee and Guidance Fund also provides financial means for supporting structural policies in the field of agriculture and rural development. Such measures which are not used in objective 1 areas are financed out of

the guarantee section and those in objective 1 intervention regions by the guidance section.

In addition to these funds, there is the cohesion fund that finances measures in the field of infrastructure improvement and environmental protection. It was originally designed to foster adjustment for some EU member states for joining the monetary union of the EU. From this fund, countries with a per capita income of less than 90 percent of the Union are benefiting. These countries are at present the Republic of Ireland, Spain, Portugal and Greece. Additional funds are left to the so-called community measures, of which LEADER and its successors LEADER II and LEADER + are especially designed for rural areas.

It should be stated that all the programmes mentioned above are subject to continuous improvement. As already mentioned, they have been cut and focused from the period 1994-1999, and they are now under strict evaluation processes, that comprise *ex ante*, mid-term and *ex post* evaluations. This is most probably due to the planned sharp adjustment in 2006, when the enlargement process makes such adjustments necessary.

Instruments for Pre-Accession

1. General Remarks

The structural policy instruments for pre-accession are designed to help the CEE-accession countries in their adaptation of the standards and regulations, especially the *acquis communautaire*. These programmes should also help in getting familiar with the structural policies of the EU, to adjust administration with respect to the above-mentioned principles of participation, decentralisation, subsidiarity and additionality. In total, there are three programmes, which will be discussed hereafter: ISPA, PHARE and SAPARD.

It might be of special interest here that only one of the three programmes, SAPARD, follows *a priori* the principle of decentralisation. This means that SAPARD is planned, implemented and managed – in both technical and financial terms – by national and regional authorities, whereas the other two programmes are guided centrally by the European Union.

Table 7.**Funding Range for ISPA Projects per Country (in %)**

Bulgaria	8.0 - 12.0	Latvia	3.5 - 5.5
Czech Republic	5.5 - 8.0	Poland	30.0 - 37.0
Estonia	2.0 - 3.5	Romania	20.0 - 26.0
Hungary	7.0 - 10.0	Slovakia	3.5 - 5.5
Lithuania	4.0 - 6.0	Slovenia	1.0 - 2.0

Source: European Commission (2000a)

2. ISPA

ISPA is the acronym for Instrument for Structural Policies for Pre-Accession. Endowed with funds of more than 100 million Euro per year, it aims at providing infrastructure and environmental measures for the accession countries. ISPA projects have to match with local projects (additionality) and assure sustainability, especially in the field of infrastructure, and technical projects, as such projects should guarantee maintenance of the future. Another important point of the ISPA funding is the fact that the amount of possible funds for each country is given as a percentage range for each country that can be fully exploited only in competition with other countries.

3. PHARE

PHARE is a programme which has two specific features. The first feature is that it specifically aims at institution building, which means the setting-up of administrative and legislative institutions which will help in adopting the *acquis communautaire*. Secondly, it is an instrument that is not only provided for the ACs but also for countries of former Yugoslavia and the Balkan, namely the Republic of Macedonia, Bosnia and Herzegovina and Albania.

4. SAPARD

SAPARD stands for “Special Accession Programme for Agriculture and Rural Development”. Its main priorities are to help each country implement *the acquis communautaire* and to solve problems related to developing a sustainable agricultural sector and rural areas. From these priorities, the following objectives are derived:

- Alignment to the agricultural *acquis communautaire*
- Implementing veterinary, phytosanitary and marketing requirements
- Upgrading food processing standards
- Restructuring the agri-food sector to improve competitiveness
- Implementing coherent structural and rural development policies
- Decentralised programming, management and implementation

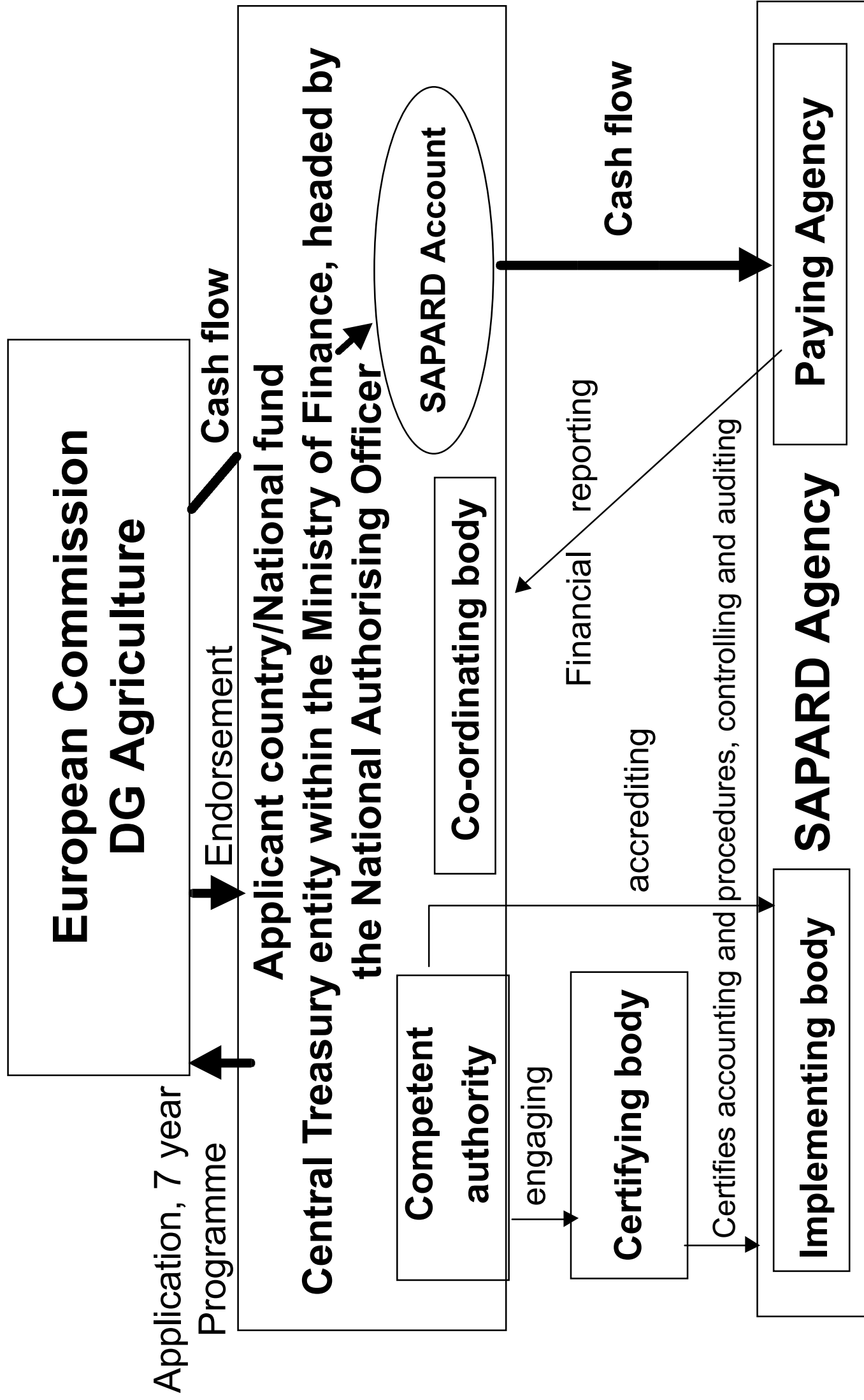
The last point is of major importance, as SAPARD is the only programme that is planned, implemented and carried out mainly under the responsibility of the respective ACs' administration. Graphs 3 and 4 show the institutional framework that is required from SAPARD-countries with respect to both the project activities and the financial rules.

It has to be pointed out that, by December 2001, only five of the ACs, Bulgaria, Estonia, Latvia, Lithuania and Slovenia, had set up the above-mentioned institutional framework; all the other countries are still in the process of doing so (European Commission, DG AGRI 2001). It has to be mentioned further, that the institutional framework for decentralised structural policy making is not developed homogeneously across the ACs. Sykora (1999) points out that the only AC with a decentralised regional planning scheme is Poland, while countries like Hungary, the Czech Republic and the Slovak Republic are still struggling for efficient decentralised regional structures.

In the light of the subsidiarity principle discussed above, it is important that administrative units and independent democratic decision-making bodies are established at sub-national levels. These institutional arrangements are a prerequisite for reaching participation at those levels where people know best what is important for their region.

SAPARD will provide 520 million Euro per year during the period from 2000 to 2006. According to Council regulation No. 1268/1999, these funds should be allocated toward the following measures:

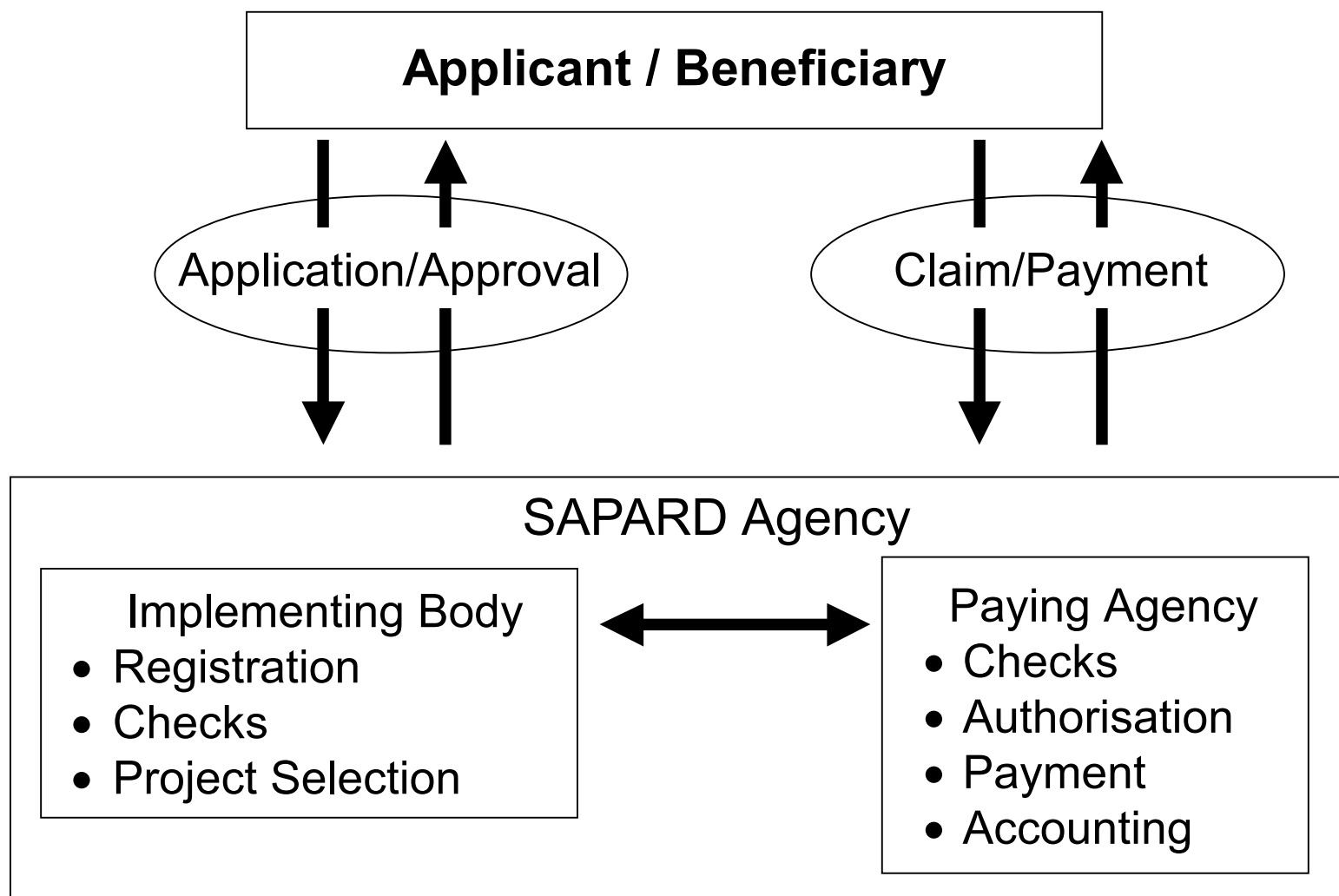
Graph 3. Institutional Framework and Project Procedure of SAPARD



Source: European Commission, DG 6 (1999)

Graph 4.

Programme and Project Implementation of SAPARD



- Investment in agricultural holdings
- Improvements to methods for processing and marketing agriculture and fishery products
- Veterinary and plant health controls, food quality and consumer protection
- Promotion of production methods that protect the environment and conserve rural heritage
- Diversifying economic activities and developing alternative sources of income
- Farm relief services and farm management services
- Setting up producer groups
- Village renewal and conservation of rural heritage
- Land improvement and consolidation
- Updating land registers
- Vocational training
- Improvement of infrastructure in rural areas

The distribution of the financial means provided by SAPARD to various policy measures is shown in Table 8. As can be

Table 8. Share of SAPARD Funds Allocated to Various Policies

Measures	Unit	Bulgaria	Czech Rep.	Estonia	Hungary	Latvia	Lithuania	Poland	Romania	Slovakia	Slovenia	All ACs
1 Investment in agricultural holdings	%	31	16	43	28	23	47	18	15	28	35	22
2 Processing & marketing of agriculture and fishery products	%	24	25 ¹⁾	18	21	26	21	38	17	26	40	26
3 Structures for quality, veterinary controls, foodstuffs and cons.	%								3			1
4 Environmentally friendly agricultural practices	%	2	3	1	4	5	1	1	3	4		2
5 Diversification of activities, providing alternative income	%	6	16	18	15	24	8	12	10	11	14	11
6 Setting up producer groups	%	1			7				2	5		1
7 Renovation of villages, protection of rural heritage	%	8	11	4	9							2
8 Land improvement and reparcelling	%		20			2				10		1
9 Vocational training	%	4	2		2	4	2	2	5	2		3
10 Rural infrastructures	%	6	5	12	12	12	16	28	28	4	10	21
11 Water resources management	%	5							3			1
12 Forestry, afforestation, investment, processing/marketing	%	8		1		3	4	1	10	8		5
13 Technical Assistance	%	4	1	2	1	2	2	1	5	3	1	3
Total of funds	%	100	100	100	100	100	100	100	100	100	100	100
Percent of total SAPARD Funds	Mio €	363.8	154.0	84.7	265.6	152.5	208.2	1177.4	1051.4	127.7	44.2	3629.6
	%	10	4	2	7	4	6	32	29	4	1	100

¹ Includes 13,774,931 € of the programme “Improving structures for quality control, for the quality of foodstuffs and for consumer protection to be applied in processing units.”

Source: European Commission (2001a)

seen from this table, the distribution is surprisingly even across the countries. The larger share goes to the downstream sector with 26 percent of all funds over all ACs. A further large piece of the cake goes to agricultural holdings themselves, about 22 percent of the SAPARD funds. But the weight of these two major posts shifts across countries: While e.g. Bulgaria, Estonia, Hungary and Lithuania and the Slovak Republic give a major part of their SAPARD funds to farm investments, the Czech Republic, Latvia, Poland, Romania and Slovenia invest more money in the downstream sector. Rural infrastructure also experiences different attention with regard to financial support. It is highly appreciated in Poland and Romania but holds a rather low share in countries like Slovakia or the Czech Republic. Minor shares are allocated to measures like quality control, organisation building and vocational training, which has to be seen critically, as the prevailing small-scale farming would suggest strengthening organisations and the above-mentioned poor human capital in rural areas might imply that something should be done about that.

It should be stressed again, the ACs were responsible for both selecting priorities among the policy set which gets supported with SAPARD funds and setting priorities. The EU Commission only approved the proposals made by authorities from the ACs. From this point of view it is surprising that not more means are set aside for enhancing human capital and fostering other so-called ‘soft factors’ of regional development.

Soft factors aim at improving the conditions for the economic agents in which they can make their decisions which – as is hoped – will lead to economic growth. Providing information about possibilities and options, strengthening and adjusting institutions, especially those which increase factor mobility and the functioning of markets would certainly be an alternative to rural policies aiming at investment. This is due to the fact that investment that is economic due to government support and not due to market conditions bares the risk of policy failure, while the improvement of institutions fosters market-oriented decision making.

Structural Policies beyond 2006: Competition, Conflicts and Cohesion

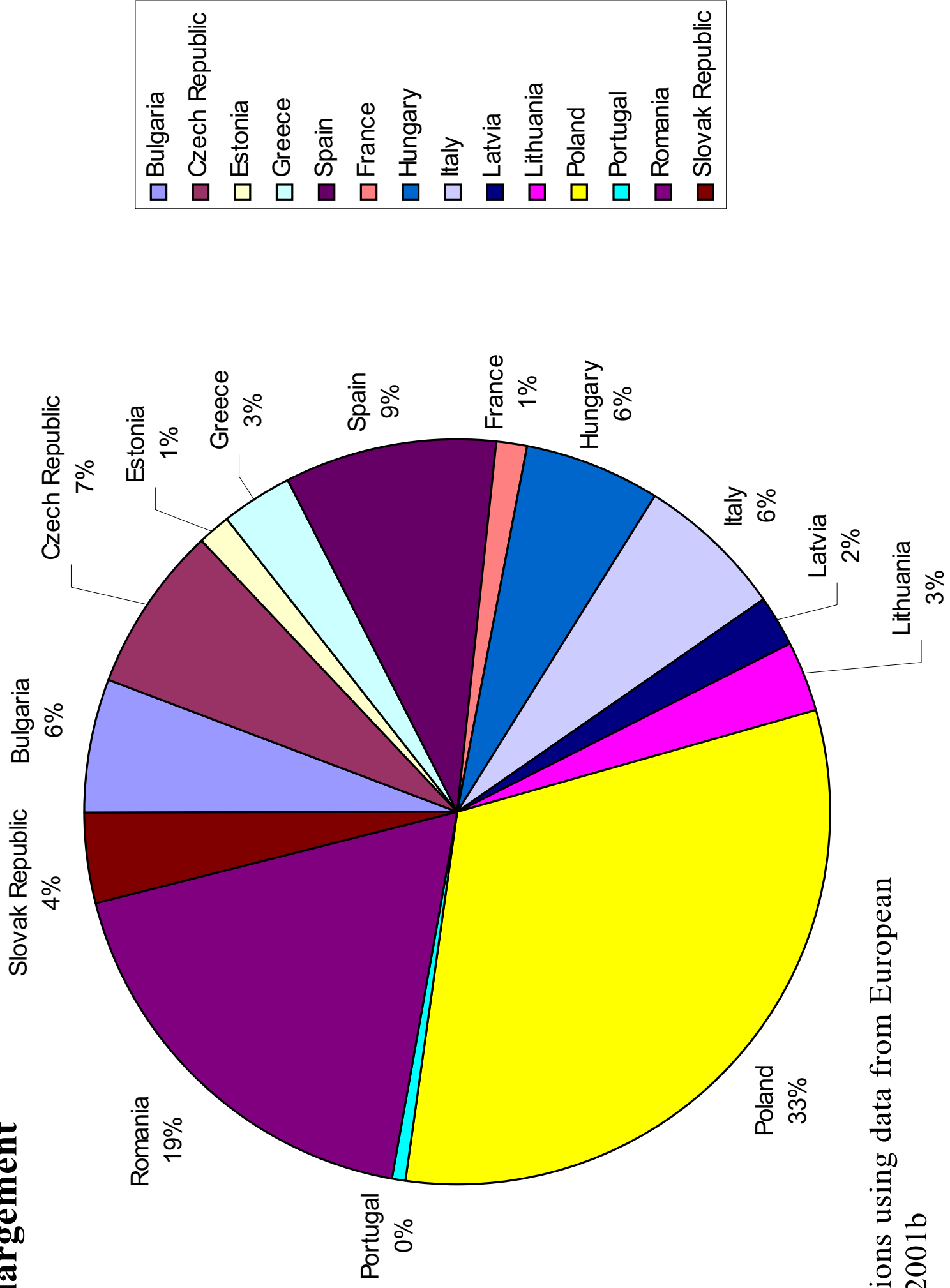
Whereas the budget and structural policies for the next six years until 2006 are fixed, the EU-enlargement, possibly taking place in 2004 for the first countries, will bring about major changes for both present and new members. The previous enlargements took place in a way that the then acceding countries adopted all regulations and were granted different transition periods for some regulations. Discussions are ongoing with respect to what kind of adjustments are necessary for tailoring the regulations to the needs of the ACs (for more discussion on this point, see Koester, 1998).

One main topic is the CAP, where debate is on direct payments and quota. Another point of interest is the re-orientation of the structural funds mentioned above. The question is whether there exists the need for a regional objective. Alternatively it is asked, would it be more advisable to focus on special problems in certain areas? In this context, the objective 1 regulations are intensively discussed. Keeping the 75 % of EU average income as the cutting edge for delineating eligible zones would make the entire area of all ACs into objective 1 regions – with the exception of some metropolitan areas like Prague. If one applies the current average support a person living in such regions receives, which is 220 Euro, and the 4 % of GDP as the upper limit, then a drastic shift of the financial resources from the old to the new members would take place.

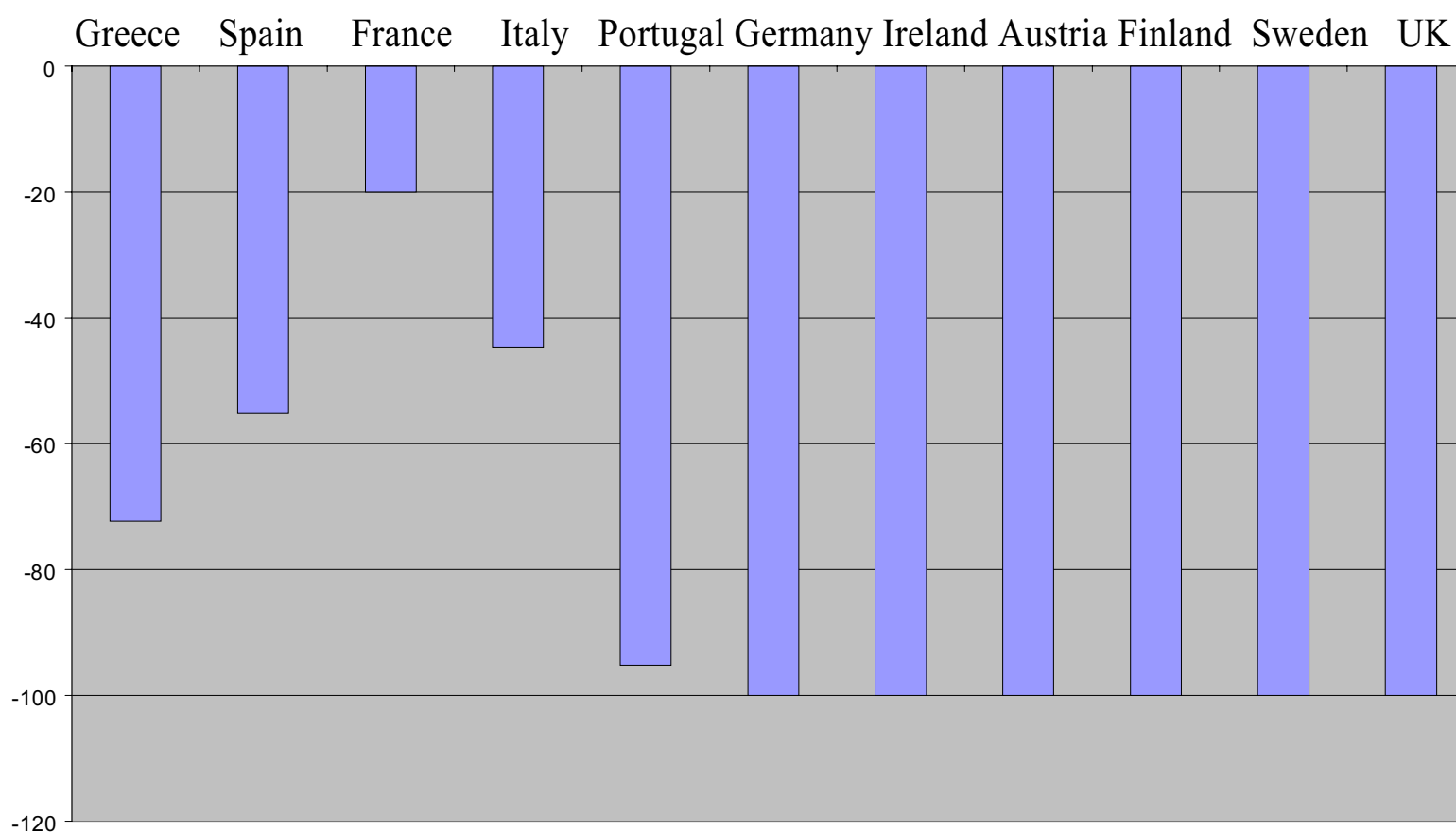
According to this rule only a small fraction of structural support would go to France, Greece, Italy, Portugal and Spain. Altogether these countries would receive about 20 % (Graph 5).¹ The remainder would go to the new members with 33 % to Poland and 19 % to Romania. The other new members would get the rest, i.e. 28 %. Of course, these percentages should not be misinterpreted. By and large, they reflect the population of

¹ The calculations in the graphs below are based on the income data of 1998, under the assumption that the 2000-2006 average amount of 220 Euro per head is paid for every country. For some countries, the 4 % limit of the EU council regulation 1260/1999 holds

Graph 5: Who Gets Which Piece of the Cake? Share of Objective 1 Funds for Each Eligible Country After EU-Enlargement



Source: Own calculations using data from European Commission 2001b

Graph 6. Change of Objective 1 Funds for the EU-members after Enlargement¹

¹ Only countries with present Objective 1 regions

Source: Own calculations according to European Commission (2001b)

the new members. However, this observation could already be made in the SAPARD case, where Poland and Romania are also getting most of the funds, about thirty percent each.

Mainly south-western EU Member States but also parts of Germany, Sweden and Finland would no longer receive any funds for objective 1. Graph 6 shows the percentages these countries would have to give up. It also depicts the losers of enlargement when speaking in terms of objective 1 funds. Surprisingly, those countries who are otherwise expected to benefit most from enlargement – the northern and north-eastern present member states like Austria, Germany, the UK, and the Scandinavians – lose all their funds; Portugal and Greece the most, and Spain, France as well as Italy would have only a small share. This might raise questions about the decision-making and voting process, but analysing such issues would possibly be too much for the framework of this paper.

CONCLUSIONS

If chosen and implemented appropriately, structural policies can lead to substantial reductions in regional disparities. The living standard in the acceding countries is quite a lot lower than in the EU. In addition, most of the ACs have also a rather large regional divergence according to this indicator and others. Hence, it is important to support regional growth in these countries already prior to their joining the EU. Since their regional economies are dominated by agriculture policies, improving this sector and the food-processing industry can help in alleviating such differences. SAPARD aims at this objective.

In combination with the empirical evidence on the agricultural sector and rural areas in ACs, the SAPARD programme can be assessed. According to the neo-classical economic theory, providing public goods would be most appropriate, and the new economic growth theory that assumes path dependencies also favours the provision of public goods and the improvement of institutions. Besides that, institutions for policy making should be set up in such a way that efficient participatory and regionally differentiated policies are possible.

A closer look at SAPARD depicts the various shortcomings the programme is already facing. Most of the money is dedicated to investments, be it in agricultural holdings or in the downstream sector. Such investments can be appropriate, i.e. economically efficient or not; the problem is that policy-induced investments bare the risk of policy failure and are suspected as being hidden subsidies to a large extent. According to the relatively considerable share SAPARD holds in the overall budget, improvement of rural infrastructure is getting quite some attention. But this does not hold for every country, as some invest only a small amount in infrastructure.

Improving product quality at farms and the processing industry is also aimed at in the allocation of public funds. However, too little is spent in controlling quality as only Romania will make an appropriate investment. Another point is that institution building is also largely neglected. For producer groups, only one percent of the overall SAPARD budget is foreseen,

although the discussion above has shown that the majority of small farmers in ACs would probably benefit from such activities, as they could help them in exploiting economies of scale and gain better positions on markets. Also quite critically assessed is the lack of funds for melioration and land consolidation as such activities would also improve the functioning of land markets and thus push the indispensable re-allocation of land.

Finally, the regulations for implementing SAPARD are quite difficult to be fulfilled by the ACs. Until summer 2001, more than one and a half years after the start of the programme, only two of the ten ACs could get their SAPARD institutions accredited by the EU Commission. This has two implications: First, it is obvious that the countries have to face financial and efficiency losses when starting late. Second, as there will be a mid-term review in 2003, starting late could seduce policy makers to favour quick and dirty solutions rather than sustainable projects.

All in all, the structural policies in ACs need to be subjected to vast adjustment, both in terms of focuses and in terms of institutionalising until they are liable to achieve their ambitious goals.

REFERENCES

- Abele, S., Biesold, H. and K. Reinsberg (2001): Soziale Netzwerke: Hemmnis oder treibende Kraft im ländlichen Raum?, in IAMO 2001, Halle (Saale): Institut für Agrarentwicklung, pp. 33-37.
- Abele, S., Kancs, A. (2000): The Implementation of EU-Structural Policies in the Accession Countries: Implications for Agricultural Research, in Bundesministerium fuer Ernaehrung, Landwirtschaft und Forsten (ed.): *Rural 21 Conference Proceedings - Volume 2: Country Reports*, pp. 14-21.
- Czech Republic, Ministry of Regional Development and Ministry of Agriculture (2000): SAPARD Operational Programme.
- European Commission (2000a): Information slides on structural policies (various editions).
- European Commission (2000b): Labour market review, various editions.
- European Commission (2001a): SAPARD annual report 2000.

- European Commission (2001b): 2nd Cohesion Report.
- European Commission, DG 06 (1999): SAPARD information material.
- European Commission, DG AGRI (2000): Press releases IP/00/1343, IP/00/1211, IP/00/1009, IP/01/692
- European Communities (1999): Council Regulation (EC) No. 1260/1999.
- Fiege, U. and Abele, S. (2001): The Role of Agriculture in Selected Rural Development Policies across Europe: Empirical Evidence from Hungary and Poland. Paper presented at the 73rd Seminar of the European Association of Agricultural Economists from 28 to 30 June 2001 in Ancona, Italy.
- Food and Agricultural Organisation (2000): Statistical Database. www.fao.org
- Frey, B.S. and Kirchgaessner, G. (1994): *Demokratische Wirtschaftspolitik*, Franz Vahlen, Publisher, Fig. 3.4, p. 61.
- Koester (1998): Anpassungsbedarf der EU-Agrarpolitik als Folge der Osterweiterung, in Zollnhöfer (ed.): *Perspektiven der Osterweiterung und Reformbedarf der Europäischen Union. Berlin (Duncker und Humblot)*, pp. 121-142.
- Krieger-Boden, C. (1995): Neue Argumente für Regionalpolitik? Zur Fundierung der Regionalpolitik in älteren und neueren regionalökonomischen Theorien, in *Die Weltwirtschaft*, 2/1995, pp. 193-215.
- Latvian Ministry of Agriculture (2000): SAPARD Operational Programme.
- Peters, H.R. (1996): Sektorale Strukturpolitik, München (Oldenbourg).
- Polish Ministry of Agriculture and Rural Development (2000): SAPARD operational programme for Poland.
- Republic of Romania (2000): SAPARD Operational Programme.
- Slovak Republic (2000): SAPARD Operational Programme.
- Sykora, L. (1999): Local and Regional Planning and Policy in East Central European Transitional Countries, in Hampl et al., *Geography of Societal Transformation in the Czech Republic*, Prague: Charles University, Department of Social Geography and Regional Development, pp. 153-179.
- Urfei, G. (1999): *Agrarumweltpolitik nach den Prinzipien der Oekonomischen Theorie des Foederalismus - Ein Regionalisierungsansatz zur territorialen Abgrenzung effizienter Politikaktionsraeume*. Schriftenreihe des Rheinisch-Westfaelischen Instituts fuer Wirtschaftsforschung, Neue Folge Heft 66, Berlin: Duncker & Humblot.