ECONOMIC DEVELOPMENT IN THE BACKWARD REGIONS OF YUGOSLAVIA, 1953-64

by

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ABSTRACT

The disparities in the level of development between the richer and poorer regions of Yugoslavia are among the worst in Europe. The level of output per head of the population in 1964 in the poorest of the eight regions was less than one-fifth of its level in the richest, while in the group of the four least developed regions, comprising 40 percent of the country's land area and one-third of its population, it was only one-half of its level in the more developed group.

The period 1953-64 spans twelve years during which the promotion of the development of the backward regions has been a constitutional obligation of the Yugoslav government, and its active regional policy implemented through the uniquely Yugoslav system of decentralised planning. Following the repudiation, in the years 1950-52, of centralised directive planning on the Soviet model, the Yugoslav authorities instituted a system of economic management based on the decentralisation to the enterprise of responsibility for the organisation of current production, combined with the retention by the state organs of control over the "basic proportions of development", specifically, the level and sectoral distribution of investment and foreign trade. The control of investment was made effective through the strong centralisation in the accumulation of investment funds, from taxes on the enterprise, and their allocation in accordance with plan priorities. The authorities were thus able directly to channel a substantial volume of investment funds to the underdeveloped regions. Extensive government intervention in price formation, in addition to tax concessions and the payment of subsidies to enterprises in financial difficulties severely limited the
application of profit and loss criteria to the operations of the enterprise. The system of decentralised planning thus provided a very favourable institutional framework for promoting investment and the expansion of output in the underdeveloped regions.

Development policy for the backward regions, as for the country as a whole, passed through two main phases during these years. Industrialisation was consistently regarded as the centrepiece of development strategy, with the improvement of agriculture and the expansion of tertiary activities playing, for the most part, only a subsidiary role. Between 1953 and 1956 efforts were concentrated on the build-up of the "basic industries", notably the power industries and heavy metallurgy, a continuation of the policy begun under the First Five-Year Plan in the Stalinist years. From 1957, however, a new strategy was adopted, of "development on a broader front", giving much greater prominence to the expansion of manufacturing and consumer goods' industries. This reorientation gave rise to considerable dispersion in the development efforts in the backward regions, both among industrial sectors and into newly designated centres, in contrast to the narrow range of industries developed in the earlier phase and their concentration in the vicinity of the necessary raw materials.

Within this broad pattern, however, the individual underdeveloped regions varied their own development strategies in accordance with their natural resources and other characteristics. In Bosnia-Hercegovinia, which contained a substantial part of Yugoslavia's reserves of coal, iron-ore and water-power, development proceeded rapidly in the earlier years with the expansion of the national priority sectors of coal, steel and electricity, but latterly the transition to
a more diversified pattern of industrial development was effected only slowly. The concentration of these resource-based industries into the central parts of the region has left Bosnia-Hercegovinia itself, in spite of substantial local population migration, faced with the internal problem of disparities between its more and less developed areas.

Mentenegro, the smallest and most remote of the regions, separated from the rest of Yugoslavia by mountain barriers, had initially to devote major efforts and a large volume of investment to the provision of transport facilities before the expansion of production could be begun, and even in 1964 the facilities remained seriously deficient.

Because of the region's small size (less than half a million inhabitants) its development strategy comprised only a few individual projects, although the level of investment there was much the highest in Yugoslavia.

Macedonia, the most agricultural of the underdeveloped regions, adopted a policy of integrated agricultural and industrial development, the improvement of agriculture being complemented by the establishment of textile, leather and food-processing industries to process agricultural products for the national market. This pattern of development encouraged a high degree of urbanisation in the region, with the concentration of its industries into a number of relatively large centres, each serving its particular agricultural hinterland. For political reasons development efforts for Kosmet, much the poorest of the Yugoslav regions did not begin, on any scale, until after 1957, with the result that development there was scarcely begun. A two-pronged approach, comprising both heavy and light industry, was however being either adopted or planned. Coal, electricity and, eventually, chemical industries were being based on the region's extensive lignite deposits, while non-ferrous metallurgy
and related chemicals were being expanded, to exploit local deposits of lead and zinc; complementary to these, the labour-intensive industries of textiles, footwear and food products were being promoted in order to create new industrial employment and thus begin to relieve the acute pressure of agricultural overpopulation.

But, in spite of very high levels of investment in the underdeveloped regions, the disparities between the regional groups in the level of output per head tended to increase over the twelve years, as total output in the underdeveloped regions grew rather less rapidly, and population more rapidly, than in the more developed group. This occurred in spite of considerable emigration, most notably from Macedonia. Only in Montenegro, much the smallest of the regions, was a movement towards convergence with the more developed group achieved. The policy of industrialisation was itself successful, in that each of the underdeveloped regions recorded a rate of industrial expansion higher, sometimes substantially higher, than in the more developed group; but their tendency towards lower growth rates in the other economic sectors, combined with the handicap of an output structure in which industry occupied a lesser place more than offset (except in Montenegro) the successful growth of industrial production. The focussing of development efforts on industrial expansion, while in itself successful, was thus concentrated on too narrow a front to achieve a convergent movement in the growth of total output.

The cost of the policy of development in the backward regions is difficult to appraise, with the artificial prices for certain items of capital equipment and the payment of subsidies in order to maintain production in unprofitable enterprises. But, accepting the Yugoslav
valuations of investment and regional product, comparison on a sector-by-sector basis reveals that the growth of output achieved in the under-developed regions commonly required a volume of investment at least half as large again, and sometimes several times larger, than in the more developed regions.

On strictly economic grounds, the defence can be offered that a period of twelve years, even of an active development policy, is much too short to achieve the elimination of disparities which have built up over generations, and that investment for "catching-up" in the provision of overhead capital and the time required for the external economies of development to be gained bring a temporary overstatement of the investment cost of development policy. There remains, however, a substantial element in the development efforts which can only be accurately described as "social" or "relief", rather than "development" investment.
Acknowledgements

During the preparation of this thesis several visits were made to Yugoslavia. The usefulness and enjoyment of these visits derived in large measure from the hospitality extended by the Yugoslav Institute for Economic Research, and in particular by Branko Horvat and Miodrag Ostraćanin. It is a pleasure to acknowledge the help afforded through the library and other facilities freely made available, numerous introductions arranged in Belgrade and other parts of Yugoslavia, and many stimulating and informative conversations with members of the Institute.

Among other economists whose knowledge, opinions and comments have contributed to the development of certain ideas expressed here, special mention must be made of Branko Ćolanović, Director of the Privredna Banka of Serbia, Mihailo Mladenović, Head of the Regional Division of the Federal Planning Office, Kosta Mihailović, Director of the Ekonomski Institut of Serbia, and Filip Vasić and Vera Podgornik of the Institut za Ekonomiku Investicija. The members of the Regional Planning Offices in Sarajevo, Titograd, Skopje and Priština provided many useful discussions on the individual prospects and problems of their own regions. In Belgrade the librarians of the Federal Statistical Office and the National Bank spared themselves no efforts in making available any publications sought.

Much of the data processing for this thesis was carried out on the University's KDF9 computer, using the admirable regression programme, with data transformation facilities, contributed by Emiel Van Broekhoven.

Michael Kaser has supervised this thesis since almost its earliest days, and its final form owes much to his close and careful scrutiny.
# Economic Development in the Backward Regions of Yugoslavia, 1953-64

**Introduction**

1

## Chapter 1. The Problem of the Backward Regions

1. The Inequalities between the Regions 8
2. The Objective of Development 29
3. The First Attempt: the Five-Year Plan, 1947-52 38

## Chapter 2. Decentralised Planning

1. The Principle of Decentralisation 54
2. Planning by Global Proportions 64
3. The Position of the Enterprise 71
4. The Investment System 88
5. The Regions and the Planning Process 102
6. Special Assistance to the Underdeveloped Regions 112

## Chapter 3. Approaches to Regional Development

1. Growth Strategies 132
2. Location Strategies 148

## Chapter 4. Growth in the Underdeveloped Regions

1. The Regional Groups: a Widening Gap 158
2. Bosnia-Hercegovina: a Failure of Take-off 196
3. Montenegro: the Single Success 210
4. Macedonia: Search for an Industrial Structure 222
5. Kosmet: the Neglected Region 234

## Chapter 5. Regional Location Policies

1. Bosnia-Hercegovina 247
2. Montenegro 262
3. Macedonia 270
4. Kosmet 280

## Chapter 6. The Reckoning

1. The Achievements 287
2. The Costs 301
3. The Future 313

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**Appendix 1. National Income Accounting in Yugoslavia** 330
**Appendix 2. Data Sources and Assembly** 339
**Appendix 3. Note on the Method of Biproportional Adjustment** 359
**Appendix 4. Notes to Tables.** 361

References. 368
<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-1</td>
<td>Social product per head, by region, 1953 and 1964</td>
<td>11</td>
</tr>
<tr>
<td>1-2</td>
<td>Indices of the level of development, by region, 1964</td>
<td>12</td>
</tr>
<tr>
<td>1-3</td>
<td>Measures of the average standard of life, by region</td>
<td>15</td>
</tr>
<tr>
<td>1-4</td>
<td>Growth of national income and major sectors, 1947-52</td>
<td>45</td>
</tr>
<tr>
<td>1-5</td>
<td>Rates of growth of output, by region and major sector, 1947-52</td>
<td>46</td>
</tr>
<tr>
<td>1-6</td>
<td>Regional shares in national income, population and investment, 1947-52</td>
<td>50</td>
</tr>
<tr>
<td>2-1</td>
<td>Gross investment by source of funds, 1953-64</td>
<td>90</td>
</tr>
<tr>
<td>2-2</td>
<td>Gross investment by level of financing, 1953-64</td>
<td>103</td>
</tr>
<tr>
<td>2-3</td>
<td>Percentage of federal funds in total investment, by Republic, 1954-64</td>
<td>127</td>
</tr>
<tr>
<td>2-4</td>
<td>Annual percentage change in total investment in Kosmet, 1954-64</td>
<td>127</td>
</tr>
<tr>
<td>4-1</td>
<td>Average investment ratios, by region, 1953-64</td>
<td>175</td>
</tr>
<tr>
<td>4-2</td>
<td>Investment per head of population, by region, 1953-64</td>
<td>176</td>
</tr>
<tr>
<td>4-3</td>
<td>Growth of social product, national income and population, by region, 1953-64</td>
<td>177</td>
</tr>
<tr>
<td>4-4</td>
<td>Growth of the major sectors, by region, 1953-64</td>
<td>180</td>
</tr>
<tr>
<td>4-5</td>
<td>Total investment as a percentage of social product, annually, 1953-64</td>
<td>181</td>
</tr>
<tr>
<td>4-6</td>
<td>Average investment ratios, by region and sub-period</td>
<td>182</td>
</tr>
<tr>
<td>4-7</td>
<td>Annual percentage change in social product, 1953-64</td>
<td>183</td>
</tr>
<tr>
<td>4-8</td>
<td>Annual percentage change in social product, excluding agriculture, 1953-64</td>
<td>183</td>
</tr>
<tr>
<td>4-9</td>
<td>Growth of social product, social product per head and social product outside agriculture, by region and sub-period.</td>
<td>184</td>
</tr>
<tr>
<td>4-10</td>
<td>Growth of industry, agriculture and transport, by region and sub-period</td>
<td>185</td>
</tr>
<tr>
<td>4-11</td>
<td>Employment and unemployment, by region, 1953-64</td>
<td>186</td>
</tr>
<tr>
<td>4-12</td>
<td>The contribution of structural shift to increased labour productivity by region, 1953-64.</td>
<td>187</td>
</tr>
<tr>
<td>4-13</td>
<td>The contribution of structural shift to increased labour productivity in industry, by region, 1953-64.</td>
<td>188</td>
</tr>
<tr>
<td>4-14</td>
<td>Non-productive investment, by region and sub-period</td>
<td>189</td>
</tr>
<tr>
<td>4-15</td>
<td>School enrolments, by region, 1953, 1960 and 1964</td>
<td>190</td>
</tr>
<tr>
<td>4-16</td>
<td>Supply of teachers, by region, 1953 and 1964</td>
<td>191</td>
</tr>
<tr>
<td>4-17</td>
<td>Enrolment rates by grade of education and region 1953 and 1960</td>
<td>192</td>
</tr>
<tr>
<td>4-18</td>
<td>Educational level of the population, by region, 1953 and 1961</td>
<td>193</td>
</tr>
<tr>
<td>4-19</td>
<td>Birth, death and infant mortality rates, by region, 1953-54 and 1963-64.</td>
<td>194</td>
</tr>
<tr>
<td>4-20</td>
<td>Population served per doctor and per hospital bed, by region</td>
<td>195</td>
</tr>
<tr>
<td>4-21</td>
<td>Size distribution of private agricultural holdings in Yugoslavia and Kosmet, 1961.</td>
<td>240</td>
</tr>
</tbody>
</table>
5-1 Industrial employment in large towns, by region, 1954, 1958 and 1964 248
5-2 Industrial employment in towns in Bosnia-Hercegovina, 1954, 1958 and 1964 250
5-3 Degree of urbanisation, by region, 1953 and 1961 255
5-4 Growth of population in towns in Bosnia-Hercegovina, 1953-61 257
5-5 Net emigration of population from the underdeveloped regions, 1953-61 259
5-6 Industrial employment in towns in Montenegro, 1954, 1958 and 1964 265
5-7 Growth of population in towns in Montenegro, 1953-61 268
5-8 Industrial employment in towns in Macedonia, 1954, 1958 and 1964 272
5-9 Growth of population in towns in Macedonia, 1953-61 275
5-10 Age-structure of the agricultural population in Macedonia, 1953 and 1961 277
5-11 Industrial employment in towns in Kosmet, 1954, 1958 and 1964 282
5-12 Growth of population in towns in Kosmet, 1953-61 284

6-1 Hypothetical growth rates for social product, 1953-64 290
6-2 Hypothetical growth rates for industry, 1953-64 293
6-3 Social product per head, at current, 1960 and 1965 prices 297
6-4 Incremental capital-output ratios 304 - 306

A-1 Index of social product per head of population, by region, 1953-64 321
A-2 Output per worker, by sector, 1953 and 1964 322
A-3 Percentage shares in social product, by sector 323 - 324
A-4 Gross productive investment as a percentage of social product, by region, 1953-64 325
A-5 Percentage shares in productive investment, by sector 326 - 327
A-6 Percentage rates of growth of social product and employment 328 - 329

LIST OF FIGURES

1. Lorenz curve of regional shares in social product and population 9
2. The growth of social product per head, by region, 1953-64 178
3. Index of social product per head, by region, 1953-64 179
INTRODUCTION

Regional disparities in the level of economic development and average standard of living are a problem familiar, in varying degrees, to many countries. In Yugoslavia, still, in spite of the substantial progress achieved in the post-war period, a developing country, the regional problem arises from the geographical concentration of development into particular areas, while others retain the many economic and social characteristics of underdevelopment; regional policy is concerned with the extension of development to these backward regions, and their integration into the process of national economic growth.

As a developing country, Yugoslavia's principal economic objective is to maintain a high rate of growth of national output, in order to complete the transition from a traditional to a modern economy. The size of the underdeveloped regions alone, comprising forty per cent of the national territory and one-third of the population, (apart from the poorer localities in other regions), demands that they be included in this, although the national and regional growth objectives are potentially in conflict.

The regional organisation of national development, an issue already faced by Yugoslavia as one of the more advanced of the developing countries, will confront many others as they seek to combine the drive to development with internal integration of the economy. Its extent, the existing degree of underdevelopment and the urgency of national growth combine to make it a problem of a different order from 'area redevelopment', through urban renewal and the adaptation of an obsolescent industrial structure, in industrialised countries.
The regional problem in Yugoslavia is of exceptional interest. It is almost certainly the most acute in Europe, with the per capita income derived by the one-third of the population who live in the underdeveloped regions amounting to only half of the level in the rest of the country, and in the poorest of the eight regions to less than one-fifth of that in the most developed region. The highly individual Yugoslav model of planned economy has enabled the authorities to pursue a much more active regional policy than is feasible in many countries. An investment system, designed to implement the planners' programme of development, has afforded a much more powerful and direct instrument for securing the desired regional allocation of investment than the rebate of taxes, preferential loan terms and other cost-reducing incentives employed in less closely planned economies. Fiscal and monetary measures have been used in Yugoslavia, but only in a minor role; regional policy has been essentially and directly an investment policy, strongly influenced by the nature of the Yugoslav economic system. In Soviet-type economies, on the other hand, where the authorities' control of economic development is even greater, political centralism has commonly suppressed regional questions. Yugoslavia is not only one of the more advanced of the developing countries, but also one of the most successful, having maintained, over the twelve-year period 1953-64 an average annual growth rate of 8.3 per cent, among the highest in the world; the underdeveloped regions have, to a considerable extent, but not entirely, shared in this growth. The Yugoslav situation thus offers a prominent regional problem, the institutional opportunity for a vigorous policy, and a high-growth environment.

Regional economics is itself a relatively new and wide-ranging
field of economics, still in the process of devising its own appropriate tools of analysis, often by adapting tools developed in other fields. Many of these tools are, as yet, imperfectly matched with each other, and with the type of data commonly available. The approach adopted here will combine 'development' economics with 'location' and 'trade' aspects from spatial economics. For the purposes of policy-making, these two types of decision are largely interdependent. In the case of resource-based industries, or industries with a strong market-orientation, decisions on the location of development are closely dependent on sectoral decisions. Even for 'footloose' industries, the rate of expansion is constrained by the size of the feasible market, either the share of the national (or even international) market which can be won, or the opportunities for expansion, with or without 'import' substitution, in the local market. Locational decisions are thus partially determined by sectoral decisions, while the sectoral decisions themselves are constrained by the opportunities for trade.

The development of the underdeveloped regions will be treated, for the most part, from the side of production, through an analysis of investment, employment and the growth of output. Yugoslav appraisals along these lines tend to be conducted only in the highly aggregate terms of the level of investment and the growth of total output, with, possibly, a small number of major sectors; while these are often supplemented by reference to individual features and projects, systematic analysis by sector is not applied. In the present work disaggregation by sector will be extensively used in the discussion of both the 'growth' and the 'locational' aspects of development policies.
The central role in the analysis given to investment, as a necessary, but by no means sufficient, condition for growth, follows the treatment applied by the Yugoslavs themselves, who regard investment as the principal instrument for promoting economic development. In the discussion of regional development strategies, as embodied in investment decisions, statistical and interview material will be used in entirely complementary roles. Figures on realised investment, both its level and its distribution by sector, give a necessary quantitative framework for the more detailed local information, on motivations and objectives as well as projects undertaken, derived from visits and discussions in Yugoslavia.

The employment problem in the underdeveloped regions is not the overt unemployment of industrial depressed areas, but low productivity. This may be the consequence of 'underemployment', the spreading of available work among all those with no other source of employment, or of a scarcity of co-operating factors, notably capital. While conceptually distinct, these two sources of low productivity are difficult to distinguish and quantify in concrete situations, although underemployment is generally agreed to be particularly prevalent in agriculture. Productivity can be improved either through the creation of new employment in higher-productivity sectors, bringing a structural shift of employment away from sectors of underemployment and low productivity, or by improvements, through the provision of better equipment, within individual sectors. Analysis by sector will be used to follow the impact of development policies along these 'structural' and 'productivity' lines.

The calculation of regional growth rates by sector not only
provides much informative detail on individual growth patterns, but makes it possible to separate regional growth rates into their 'growth' and 'structural' aspects. This reveals that the underdeveloped regions have achieved high growth rates for many individual sectors, but have been handicapped by a structure in which slow-growing sectors hold a prominent place. The Yugoslavs' own aggregate approach, overlooking this structural aspect, accords less than due recognition to the growth of output achieved in the underdeveloped regions.

Corollaries of the location of development are not only the movement of goods but the migration of population. At the national level, the political inhibitions arising from the differences in nationality between the populations of the various Yugoslav regions prevent the acceptance of inter-regional migration as the solution to regional problems and require a decision on the rate of development of the underdeveloped regions relative to the rest of the country. Within each region, locational decisions partly determine the degree of concentration or dispersion of population; against the 'economies of agglomeration' in the build-up of industrial centres must be set the investment costs of urbanisation, for the provision of social capital. The related issues of locational policy, inter-regional migration and urbanisation will be treated as an integral part of regional development policy.

The scarcity of, and competing demands for, investment resources impose on regional policy the criterion of efficient use of investment. In spite of the considerable volume of resources which have been devoted to its implementation, the Yugoslavs themselves have made little explicit analysis of its cost-effectiveness. To do this move
systematically than by criticising losses incurred on individual projects presents many problems: many of the methods of valuation used in the Yugoslav system do not reflect real social costs and returns; the period of active regional policy has been short relative to the history of the problem, and the external economies of development yield their full results only in the longer-term; since the topic is a politically sensitive one, where imputations have to be made, the value-judgements of the individual are liable to obtrude. While these considerations indicate some of the difficulties and limitations, the present work will offer a critical appraisal of the Yugoslav economic system, its operation and its criteria, from the point of view of their impact on regional development, and some indications of the cost of regional policy.

Analysis by sector at the regional level is made possible by the availability of data series from the Yugoslav statistical services. 'Social ownership' of the means of production requires extensive statistical reporting, both to give account for the use of social property and to provide the informational basis for planning. The federal structure promotes the regional compilation of data, unimpeded by the 'disclosure' provisions which suppress much regional information in free enterprise economies.

Regional development will be treated here in detail only from 1953 until the end of 1964. This twelve-year period is a unit both from the points of view of institutional developments and the availability of data. While the selection of any particular year as marking the beginning of a new planning era must be somewhat arbitrary, by 1953 the principal features of decentralised planning, with its fundamental
differences from its predecessor, were, if not already established, clearly emerging. 1965-66 saw the introduction of a further set of economic reforms, making major changes in the planning system, indeed, in the eyes of some observers, threatening its continued existence. The full implications of these changes are still emerging, and the fluidity of the situation prevents detailed consideration of their impact on regional policy.

For the earlier years, of planning on the Soviet model, only a few statistical series are available, mostly of limited usefulness. The use of physical units for planning purposes, with only a minor role for a system of administered prices, makes valuations in the prices of the time, even where available, largely meaningless. A few reconstructed series allow only the main outlines of the economic changes during these years to be observed. The most recent year for which full data are available is now 1965, but, in view of the impact of the price and taxation reforms and other changes introduced in the middle of that year, it is preferable to terminate the series at the end of 1964.

Yugoslav concepts and methods of valuation will be followed throughout. Social product and national income will bear their Marxist 'productive' connotation, and be valued, as in the Yugoslav accounts, at market prices, inclusive of turnover and other taxes. Details of the concepts and methods of compilation of the national income accounts are given in Appendix 1. Because the data have been collated from a range of sources, and numerous adjustments made, data assembly is described in detail in Appendix 2, with only brief notes appended to individual tables in Appendix 4. All translations from Serbo-Croat are by the author.
1. THE PROBLEM OF THE REGIONAL REGIONS IN YUGOSLAVIA

(i) The Inequalities Between the Regions

It is now almost fifty years since Yugoslavia was created as a nation-state, and over twenty since it declared itself Socialist, but a prominent characteristic is still the wide disparity in the level of economic development of its constituent regions. In spite of formal political unification and the implementation of socialist principles, the creation of 'one nation' of the Southern Slavs, with 'equality of the nationalities' has not yet, in this respect, been achieved.

The extent of the inequalities is illustrated by the Lorenz curve in Figure 1, where regional shares in national output are compared with shares in the total population of Yugoslavia, in 1964.

Nor, over the period 1953-64, which covers more than half of the life of the Socialist state, and many of its years of active regional policy, was there any over-all narrowing of the differences. Social product per head of the population, which, in 1953, was 3.4 times greater in the richest region than in the poorest, by 1964 was 5.4 times greater; of the regions individually, all the rich grew richer.

1. Social product, which is inclusive of depreciation, will, in general, be used as the measure of output, in preference to national income, in order to avoid the difficulties involved in the estimation of depreciation. The familiar difficulties of anticipating asset life, both physical and economic, apply with particular force in a country which is still, to a considerable extent, underdeveloped, and where development has been taking place at a rapid pace. Moreover, the provision of amortisation was closely regulated by the Yugoslav authorities, as described in Appendix I, in a manner which yielded only a very approximate estimate of the appropriate allowance for capital stock maintenance.
Figure 1. Lorenz Curve of Regional Shares in Social Product and Population
while almost all of the poor grew relatively poorer. 1. (Table 1-1).

These disparities were probably the widest to occur in any country in Europe. In Italy, which suffers from the most acute regional problem in Western Europe, Tagliacarne (1965, Table 20) has estimated that, among the fourteen regions, net national product per head in 1964 ranged from 142 in Lombardy (Italy = 100) to 51 in Basilicata and Calabria. In the U.S.S.R. the differentials in net material product per head are still narrower in the European part, ranging, on average over the years 1958-61, from 133 in Latvia (U.S.S.R. = 100) to 74 in Belorussia, and even in the Asian Republics only from 79 in Azerbeidzhan to 56 in Tadzhikistan. (Vorobev (1965, p. 521)).

Social product per head affords the most comprehensive single measure, but these disparities between the regions are further confirmed by a number of other indices of the level of development, shown in Table 1-2. The poorer regions had a strikingly lower rate of employment 2. of their total population, the consequence of limited employment opportunities, combined with an unfavorable age-structure of the population deriving from a low life-expectancy. The larger proportion of the working population who were engaged in agriculture,

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1. The term 'region' will be used to refer to each of the eight principal territorial divisions of Yugoslavia, although five are Republics (Slovenia, Croatia, Bosnia-Mereegovina, Macedonia and Montenegro), one a province (Vojvodina) and only one (Kosovo-Metohija (Kosmet)) strictly a region. Serbia Proper is not a political and administrative unit in the same way as the others; within the Republic of Serbia, Vojvodina and Kosmet have certain rights to conduct their own affairs which do not apply to Serbia Proper; the regional position within Serbia thus constitutes a secondary, but only partial, level of federation, rather than sub-division into three co-equal units.

2. Employment will be used in its Western rather than its Yugoslav connotation, in order to include the self-employed, an obviously important category, particularly in agriculture.
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</tr>
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<td>Region</td>
<td>Index of Social Product per Head</td>
<td>Employed as % of Total Population</td>
</tr>
<tr>
<td>------------------------</td>
<td>----------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>Yugoslavia</td>
<td>100</td>
<td>37.6</td>
</tr>
<tr>
<td>Slovenia</td>
<td>190</td>
<td>41.3</td>
</tr>
<tr>
<td>Croatia</td>
<td>119</td>
<td>38.9</td>
</tr>
<tr>
<td>Vojvodina</td>
<td>113</td>
<td>36.9</td>
</tr>
<tr>
<td>Serbia Proper</td>
<td>98</td>
<td>44.1</td>
</tr>
<tr>
<td>Bosnia-Herzegovina</td>
<td>68</td>
<td>31.7</td>
</tr>
<tr>
<td>Macedonia</td>
<td>69</td>
<td>32.4</td>
</tr>
<tr>
<td>Montenegro</td>
<td>68</td>
<td>27.1</td>
</tr>
<tr>
<td>Kosmet</td>
<td>35</td>
<td>29.2</td>
</tr>
</tbody>
</table>

* The shares in employment in Macedonia refer to 1962, to avoid the large increases, particularly in the construction industry, associated with the rebuilding of Skopje, 1962-64.
and its low average productivity there, strongly suggest underemployment. The poorer regions tended, further, to have a lower proportion of their employed population in industry, although this varied considerably in individual cases, as did employment in the productive services. The tendency for output per worker in industry to be lower emerges more clearly if the comparison is made on a sector-by-sector basis, as in Table A-2; in most sectors, average productivity was markedly lower in the poorer regions, the effect, for industry as a whole, being partially concealed by the greater importance of sectors such as tobacco, electricity and steel, where output per worker was high. Output per worker in industry and services was strikingly higher, for the economy as a whole, than in agriculture; in 1964, as shown, it was between five and six times higher. 1.

Both the 'structural' and the 'productivity' aspects of the employment situation in the poorer regions are evident: the larger proportion of the population who were either not in employment, or engaged in the low-productivity sector, agriculture, and, conversely, the lower levels of employment in the high-productivity sectors of industry and services; and, on a sector-by-sector basis, lower average productivity than was achieved in the richer regions.

Statistical confirmation of the close relationship between social product per head and a wider range of indices of the level of development is given by Ivanović (1961). He compiles an index of the level of development, incorporating seven economic indicators: national income per head of the population, fixed capital per worker in the social sector of the economy, cadastral income per hectare in

1. Part of this difference was due to the Yugoslav pricing system, which is described in Chapter 3 (iii), below.
agriculture, active as a proportion of total population, the length
of roads per 100 square kilometres of territory, the length of railways
similarly, and the percentage of non-agricultural population; when
applied to the relevant data for 1955 this index yields the same ranking
of the six Republics as does income per head, and a range, between
Slovenia and Montenegro, of almost eight to one.

This variation among the regions shown from the side of production
is confirmed, from the aspect of consumption, by the representative
measures of the standard of life, shown in Table 1-3. Particularly
striking is the range in the rate of illiteracy, negligible in Slovenia,
which has a tradition of universal education extending over a century,
but 41.1 per cent of the population over ten years of age in Kosmet.

Economic Dualism

A situation of this sort, where widely differing levels of
development co-exist within a country, and individual regions are
relatively well or relatively badly off according to most of the indices
of the level of development, is by no means unique to Yugoslavia.
Lutz (1962) describes a similar situation in Italy as one of 'economic
dualism'; there, with reservations, the regional division between the
North and the Mezzogiorno approximates to the division between the
developed sectors in both agriculture and industry, and their
undeveloped, or pre-industrial, sectors.

This division between 'the North' and 'the South' applies equally
in Yugoslavia - the term 'dualism' is adopted, from the Italian case,
by Obradović (1962) - but in more complex form. The terminology 'North'
and 'South' is not in common use, each region retaining its individual
status within the federal structure. Moreover, as already indicated,
<table>
<thead>
<tr>
<th>Region</th>
<th>Consumption of Meat</th>
<th>Expenditure on Clothing &amp; Footwear</th>
<th>Rate of Illiteracy</th>
<th>% of Population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Kg. per Head</td>
<td>Thous. Dinars per Head</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yugoslavia</td>
<td>26.2</td>
<td>12.5</td>
<td>19.7</td>
<td></td>
</tr>
<tr>
<td>Slovenia</td>
<td>30.6</td>
<td>23.0</td>
<td>1.8</td>
<td></td>
</tr>
<tr>
<td>Croatia</td>
<td>33.6</td>
<td>14.6</td>
<td>12.1</td>
<td></td>
</tr>
<tr>
<td>Vojvodina</td>
<td>47.3</td>
<td>14.6</td>
<td>10.6</td>
<td></td>
</tr>
<tr>
<td>Serbia Proper</td>
<td>27.6</td>
<td>12.3</td>
<td>23.0</td>
<td></td>
</tr>
<tr>
<td>Bosnia-Hercegovina</td>
<td>20.3</td>
<td>10.1</td>
<td>32.5</td>
<td></td>
</tr>
<tr>
<td>Macedonia</td>
<td>14.4</td>
<td>9.2</td>
<td>24.5</td>
<td></td>
</tr>
<tr>
<td>Montenegro</td>
<td>25.3</td>
<td>0.7</td>
<td>21.7</td>
<td></td>
</tr>
<tr>
<td>Kosmet</td>
<td>11.5</td>
<td>6.5</td>
<td>41.1</td>
<td></td>
</tr>
</tbody>
</table>

The figures for consumption of meat and expenditure on clothing and footwear relate to 1963, the rate of illiteracy to 1961.
the Yugoslav regional situation is characterised by a wider range of levels of development than among the Italian provinces; all the regions are underdeveloped relative to Slovenia; all, except Slovenia and Croatia, had a level of social product per head below the national average in 1964; if the four richest, and the four poorest, regions are grouped together, each group still shows a range in social product per head, between its richest and poorest members, of almost two to one. In Yugoslav circumstances, therefore, the delimitation of any particular group of regions as underdeveloped must be partly arbitrary.

The regions themselves, moreover, are by no means internally homogeneous in their level of development. Even the richest of all, Slovenia, has, on occasion, adopted special measures to assist its own poorer areas, and incomes in the Lika have always been well below the average for Croatia as a whole. Some of the underdeveloped regions, on the other hand, contain important industrial and commercial centres; Sarajevo (in Bosnia-Hercegovina) is old as an industrial town, Zenica (also in Bosnia) has been a major national industrial centre throughout the post-war period, while, in Macedonia, Skopje, with its strategic position on natural lines of communication, is one of the oldest commercial and trading centres of the Balkans. The 'dualism' in agriculture shows itself between the social and private sectors far more directly than between regions, the state farms and co-operatives operating with larger units and more mechanised methods, by contrast with the small-scale, primitive methods and low productivity of the peasant holdings. Any regional grouping can, therefore, show only an approximate correspondence to the incidence of economic characteristics, regions classified as 'more developed' or 'underdeveloped' being only predominantly so.
The Underdeveloped Regions

For the purposes of this study, four regions, Bosnia-Hercegovina, Macedonia, Montenegro and Kosmet, will be treated as underdeveloped. This is the grouping which gives the closest overall correspondence to the official classification of 'underdeveloped regions' applied between 1953 and 1964, although the various revisions introduced into the classification make it impossible to follow the official scheduling throughout. Each of these four regions, at various times, received federal assistance on the grounds of economic backwardness, while the only other areas to receive any consistent degree of special attention were selected parts of Serbia Proper.

The grouping of these four regions defines the problem of underdevelopment where it has been most acute. Together they contain 6.6 million people, 34 per cent of the national population; but in 1964 this 34 per cent produced only 21 per cent of social product, representing a per capita output only half of the level achieved in the four more developed regions. A clear margin stands out between the level of social product per head in Bosnia-Hercegovina, Macedonia and Montenegro, at 63 or 69 per cent of the national average (with Kosmet much lower still), and Serbia Proper, the poorest of the richer regions, at 32 per cent. (Table 1-1). Individually the four underdeveloped regions tended to rank in the lower positions by the other indices of the level of development shown in Tables 1-2 and 1-3.

The division between the more and less developed regions coincides approximately with the country's major geographical divisions; the

1. As a result of a further reclassification introduced in 1965, these four regions together have now become, for the first time, the scheduled 'underdeveloped regions'.

richer regions, Slovenia, Croatia, Vojvodina and parts of northern Serbia, occupy or are orientated to ards the Sava-Donube plain and the Dalmatian coast, while the poorer regions occupy a contiguous area of the largely mountainous territory in the south. Their more mountainous nature often restricts their agricultural potential, especially for arable farming, and presents considerable difficulties for the provision of transport facilities. These handicaps, however, do not affect each of the underdeveloped regions to an equal extent, and each has other endowments favourable to development.

Bosnia-Hercegovina, with 3.5 million inhabitants, is the third largest region in Yugoslavia, in both population and land area, (after Serbia Proper and Croatia), and much the largest of the underdeveloped regions, larger than the three others combined. In spite of its proximity to the Adriatic in the west, the coastal strip, Dalmatia, forms part of Croatia, leaving Bosnia-Hercegovina only a few miles of coastline. To the north, relatively small parts of the Republic lie in the Sava valley, the river itself serving as the northern frontier with Croatia, but hills give way increasingly to mountains, in the south and west. The valleys of several major rivers, however, the Bosna, Vrbas and Una draining to the Sava, and the Neretva to the Adriatic, offer natural lines of communication between the Sava valley and the coast, although communications in the transverse direction are difficult.

The region is exceptionally rich in natural resources. Abundant hyd-electric potential is available on its rivers, the Drina (separating Bosnia-Hercegovina from Serbia Proper in the east), the Vrbas and the Neretva. 1. The major part of Yugoslavia's known deposits

1. Yugoslav resources of water-power for hyd-electricity, of which the rivers of Bosnia-Hercegovina are an important part, have been estimated as second only to those of Norway, among European countries.
of iron-ore, along with important reserves of coal and lignite, and smaller deposits of non-ferrous metal ores (notably bauxite) form a rich base of mineral resources. The heavy forestation covering much of the region provides extensive reserves of timber. Agricultural potential is, however, limited; only in the major valleys, predominantly the Sava, is extensive arable farming possible, although some of the less mountainous areas are suitable for stock-raising.

Montenegro, Bosnia-Hercegovina's immediate southerly neighbour, is by far the smallest of the Yugoslav regions in population, although not in land-area, containing less than half a million inhabitants. Geography dominates the region; outside a small central plain and coastal strip, Montenegro is entirely mountainous. This mountain barrier, which for centuries provided protection against invaders, now constitutes a major obstacle to the integration of Montenegro into the economic development of the country as a whole; only two partially-surfaced roads, and (for several years yet) no railway, provide communications with the interior of the country. The isolation imposed by the mountains is to only a small extent alleviated by some 100 kilometres of sea-coast with several harbours.

The natural-resource endowments of Montenegro closely resemble those of Bosnia-Hercegovina: waterpower, timber and non-ferrous metal ores, notably bauxite; but, with the exception of the bauxite, they are inferior in amount and quality to those of Bosnia-Hercegovina. The small amount of arable land available is concentrated in the central plain, with opportunities for stock-raising on higher ground. The natural resource with which Montenegro is excellently endowed is the thoroughly modern one of potential for tourism, along its Adriatic coast.
Macedonia occupies the southernmost part of Yugoslavia, sharing frontiers with Albania, Greece and Bulgaria. The population, predominantly of Macedonian nationality, retain their own language. In size, with a population of 1.5 million, Macedonia is the largest of the underdeveloped regions, after Bosnia-Hercegovina, and only slightly smaller than Slovenia.

The river Vardar, rising in the northwest and sweeping round to cross the region from north to south, gaining tributaries on the way, forms a plain of good agricultural land, covering the central and eastern parts of the Republic and with spurs extending into the northwest and southwest. The agricultural potential of this plain is greatly favoured by Macedonia's southerly position and warm climate, allowing the growing of cotton, tobacco and rice, and the extensive cultivation of grapes and Mediterranean fruits. Soil erosion has damaged extensive areas to the west, and the mountains further west make these parts of the region suitable only for rough grazing. Feldspar, small deposits of non-ferrous ores (notably chrome) and recently-discovered iron-ore give Macedonia a much more limited base of mineral resources than is found in the other underdeveloped regions.

The Vardar plain also opens up easy natural communication northwards to Serbia, and southwards with Greece. Lateral communications, with the southern end of the Adriatic, are, however, extremely difficult; Albania presents a political obstacle, and, further north, the mountains of Montenegro impose a physical barrier. Many of Macedonia's exports are thus involved in very long transport hauls, either across the interior.

1. The frontiers of Macedonia have, since the Second World War, been in endemic dispute among Yugoslavia, Greece and Bulgaria, each of which includes a Macedonian population.
of Yugoslavia to be shipped through Rijeka, at the northern end of the Adriatic, or southwards to Salonika, in Greece.

Kosmet, with its population of 1.1 million people, mainly of Albanian descent, constitutes Yugoslavia’s largest and most complex development problem, a problem which is political and social as well as economic. Not only is Kosmet much the poorest region in terms of social product per head, and with a life-expectancy only half of that for the rest of the country and a rate of illiteracy more than twice as high, but it is the least well integrated into the process of national development.

At the political level, the state of Yugoslavia’s relations with neighbouring Albania has often been reflected in the treatment of its own Albanian minority. Throughout much of the earlier 1950’s, when Yugoslav-Albanian relations were very bad, no real efforts were made by the Yugoslav authorities to improve the position of Kosmet; development efforts in the region essentially came only after the beginnings of a rapprochement between the two nations.

Kosmet has also certainly suffered, particularly in the earlier years, from the additional level of federation within the Republic of Serbia. The other underdeveloped regions, being Republics, take part, along with Serbia as a whole, in the planning process at the national level, while Kosmet, unless special provision has been made, must make its claims through, and within, the Republic of Serbia; Serbia itself has had to face numerous other internal problems, such as the special position of Belgrade, the resettlement of Vojvodina and the backwardness of parts of Serbia Proper. In its position within Serbia, Kosmet thus, on occasion, suffered a further political disadvantage.

The Albanian minority, the Shiptars, win social acceptance much
It is impossible to say how far this difficulty of social integration derives from the very real differences in nationality and culture between the Shiptars and the rest of the population, and how far simply from the contrast between their obvious poverty and the consciousness of economic progress prevalent in the rest of the country. Whichever its cause, as a consequence of this social isolation Kosmet tends to experience difficulty in attracting qualified people from other regions to fill posts there, and in establishing business contacts outside, while emigrants from Kosmet are not easily absorbed into other communities.

In terms of more strictly economic resources, Kosmet is no worse placed than the other underdeveloped regions. Its agricultural potential, while inferior to that of the Vojvodina and lacking the specialised advantages of Macedonia, is superior to that of Bosnia-Hercegovina or Montenegro, but over-population and the lack of alternative employment opportunities, including through emigration, have resulted in the fragmentation of holdings. It shares the richness of other parts of Serbia in deposits of non-ferrous ores, notably lead, copper and zinc; the lead deposits, in spite of being exploited for many years, remain the most important in Yugoslavia. Extensive deposits of lignite are present in both Kosovo (the eastern part of the region) and Metohija. The region's position in natural communications is similar to that of Macedonia, its immediate southerly neighbour, in good access northwards to the Sava-Danube plain but poor access westwards to the Adriatic ports. Transport links, however, have not yet been fully

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1. Every nationality in Yugoslavia is a minority; the Serbs, the largest nationality group, were recorded in the Population Census of 1961, as 42 per cent of the total population.
developed to take comparable advantage of the natural position of Kosmet by connecting the region with the national transport arteries across Serbia and Macedonia. It is the population question, rather than natural disadvantages or the lack of resources, which lies at the centre of the problem of Kosmet.

The problem of the underdeveloped regions is, therefore, partly one of geography. The regions comprise many of the remoter parts of Yugoslavia, separated by distance and, often, by difficulties of terrain, from the areas in the Sava-Danube plain and central Serbia. In the more mountainous areas, agricultural potential is poor. But nature has favoured these regions in other respects; according to the appraisal given by Čolanović (1966, pp.39-40), one of the Yugoslav economists most deeply interested in the regional problem:

'The natural raw-material resources in the underdeveloped areas are certainly considerable. Some regions, it is true, are poor in this respect, but others are of a general national significance and imperatively call for intensive development. The underdeveloped areas contain about 76 per cent of all Yugoslav deposits of coal, 96 per cent of iron ore, 86 per cent of lead and zinc, 94 per cent of bauxite, all the deposits of manganese ore, and most of the antimony and asbestos. The underdeveloped areas also possess 40 per cent of the entire timber and a substantial part of the water power of the whole country. Yugoslavia's industrial expansion, indispensable in the future as it has been in the past, will rely to a great degree on these and on other natural resources in the underdeveloped areas'.

But the resource of the underdeveloped regions of even greater importance is their underutilised manpower, as shown by their low rates of employment and low labour productivity. Had they been able to match the level of output per worker achieved in the more developed regions, total output in the underdeveloped regions, in 1964, would have been 50 per cent higher than its actual level; alternatively, matching the employment rates of the more developed regions would have made
available almost 650,000 extra workers, equivalent to 44 per cent of
the entire industrial labour-force in Yugoslavia.

An Inherited Problem

While geography makes its contribution to the regional problem in
Yugoslavia, the influence of history has probably been of even greater
importance. The disparities between the regions are older than the
country itself. At the time of its formation in 1918, not only was
the new state of Yugoslavia poor and underdeveloped by comparison with
the rest of Europe, but the diverse historical experiences of its
member regions had brought them to very different levels of development.

The regions in the north, Slovenia, most of Croatia, and Vojvodina,
were formerly parts of the Austro-Hungarian empire. Most of Serbia,
Bosnia-Hercegovina and Macedonia had been, for long periods, under
Turkish rule, although Serbia had established its independence
progressively through the nineteenth century and Bosnia-Hercegovina
had come under the administration of the Austrian empire some forty
years before the First World War. Montenegro had always been, more or
less, an independent state, but devoting most of its energies to
fighting off the Turks. The division between the more and less
developed regions thus coincides, approximately, with the frontier
between the old Austrian and Ottoman empires.

The northern regions had already, in 1918, attained a level of
development significantly more advanced than the rest of the country.
Within the transport and communications system of the Austrian empire,
they had developed links with central and western Europe. While their
society was still overwhelmingly rural and agricultural, with the
peasant farmer predominating, certain improvements in techniques and
organisation had been introduced in the production and marketing of agricultural products; Vojvodina, in particular, often described as 'the granary of the Austro-Hungarian Empire', was noted for its developed agriculture. Some mining enterprises, and a few branches of manufacturing industry had been established, and industrial production and commerce could be described as in the early stages of capitalist development, while administration and the system of education, notably in Slovenia, were well developed for the time.

But, in the south, this sort of development had scarcely begun. Turkish rule, repressive and inefficient as it was, had established only a quasi-military framework of government and administration, with no general system of education; communications were exiguous, and industry virtually confined to handicrafts; economic life was characterised by the ubiquity of very primitive, subsistence agriculture and the lack of any of the features of an incipient industrial society. The only region in the south where any industrial development took place prior to 1914 was Bosnia; Tomasevich (1955, pp.171-172) shows the remarkable increase in the (still small) number of factories established there, following its seizure from the Turks by Austria in 1878. As is confirmed by this illustration, the adverse effects of Turkish rule, in retarding the development of the entire southern part of Yugoslavir, had been profound.

The Inter-War Years

The inter-war years were most unhappy ones for the country, with the failure of the attempt at political integration making an impossible environment for economic integration; even the formulation of a national policy to deal with the disparities was impossible. Čakeljčić (1959,
p.36) dismisses the matter brusquely with the assertion that 'in the period between the two wars, no effort at all was devoted to the development of the underdeveloped regions'.

Systematic information on the economic record of the period is extremely limited, but a few writers attempt estimates of the main indicators. Stajić (1957, p.8) estimates the annual growth of national income, over the period 1926-39, at 2.14 per cent; the Censuses of Population (1921 and 1931) and other demographic information show that the rate of population growth was around 1.5 per cent, leaving only a very small margin for increased income per head. Some growth of industry took place, described in Kukoleča (1956, chaps. IV-VI) but it was insufficient to make much impact on the general situation of agricultural overpopulation.

Several reasons suggest that the regional disparities may have increased rather than diminished. The only firm figures are for the rate of population growth, which, as is shown by Simunović (1964, Tables 21-22), was markedly higher in the poorer regions. Slovenia, Croatia and Voivodina had already had some experience of economic growth, probably sufficient to allow them to maintain some progress, while in the poorer regions development had not even begun. The leading sectors in manufacturing industry were the food-processing, textile, footwear and timber industries, (Kukoleča (1956, pp.72-96), Čobaljić (1959, p.79)), which would tend to concentrate in the agricultural areas of Voivodina and Slavonia, and in the manufacturing centres of Slovenia and Croatia. A few developments were also made in mining, notably in Serbia and Slovenia. A substantial part of such new investment as took place was financed by foreign capital, which tended to concentrate in the north and west with their previous links with central and western
Ilurone; Čobeljčić (1959, pp. 84, 87) estimates that about 50 per cent of capital in industry and mining was foreign-owned, and that 'the amount of capital invested in industry, per head of the population, in the period 1918-38 shows that Slovenia was developing more than two and a half times more rapidly than Serbia, six times more rapidly than Bosnia-Hercegovina, and almost twenty-five times more rapidly than Montenegro'.

However, Vinski (1961, p. 209), one of the closest students of economic growth in Yugoslavia, and particularly of capital formation (as also in Vinski (1962), (1965)), concludes that 'Although there are strong arguments in favour of a narrowing of differences, it is not possible to answer this question (whether the regional disparities recorded in 1953 had widened or narrowed since the First World War) in quantitative terms due to lack of data'.

What is clear is that acute regional disparities existed, and were probably getting worse, while no efforts were being made to improve the position.

The new Communist government, therefore, which came to power at the end of the Second World War, inherited a problem which had had at least part of its origins in the history of the regions even before the formation of the country, and which the first three decades of statehood had failed to alleviate. The War had added great destruction throughout the entire country, but leaving the regional situation essentially unchanged. The new government immediately formulated its intention to launch a frontal attack on the underdevelopment of the country as a whole, and in particular, in the words of its first Five-Year Plan (Yugoslavia (1947-51, arts. 5, 21)) 'to ensure a more rapid rate of development in the backward People's Republics and remove all the consequences of unequal development' and 'to remove the inequalities in the development of the individual People's Republics and build Yugoslavia as an economic whole'. Since this first declaration, improving the
position of the backward regions has been consistently and explicitly included among the objectives of national economic policy and, as then, has always been formulated in terms of the promotion of development in the underdeveloped regions as a special problem within the development of the country as a whole.
(ii) The Objective of Development

The determinations

The determination to reduce, and eventually eliminate, the regional disparities is promoted by both an idealistic and a pragmatic motivation, each related to the 'nationality question'. The Yugoslav population comprises many nationality groups, and although all are Southern Slavs, relations between them have not always been characterised by 'brotherhood and unity'; after political unification, dissension among the nationalists increased in bitterness, finally culminating in civil war during the Second World War. While the passions aroused in the inter-war and war years soon died down, the nationality differences have not been forgotten. The establishment of the federation and the designation of the Republics and regions on the basis of the nationality of the majority of the inhabitants, designed to meet the political aspirations of the major groups, entrenched the importance of the regional question at the national level, in contrast to the other East European countries where, as described by Kasor (1967, pp.30-31), political centralism has largely suppressed regional issues. As long as the economic disparities continue to coincide with the nationality groups in Yugoslavia a potentially dangerous source of friction exists, which makes the reduction of the differences in economic standards a vital part of the cementing of national unity.

But the promotion of national unity is not regarded simply in this precautionary way. A more fundamental motivation is the conviction that the economic equalities existing in Yugoslavia are in contradiction to the principles of a socialist society. As Kardelj (1964, pp.167, 171), a leading member of the government, reminded the Eighth Congress of the
League of Communists:

'Yugoslavia is a multinational community, marked by considerable differences in the economic structure of the individual republics. The problem of the economic equality of peoples therefore has two aspects: it is a question of economic independence, or self-government of peoples, and also a problem of the gradual elimination of essential differences in regard to the level of development of the material basis of national life'.

'Obviously, one of the most important factors of economic equality of peoples is the transcendence of the historically conditioned qualitative differences in the levels of economic development of various parts of the country'.

Kubović (1959, p.60) accepts it in the same spirit:

'(In underdeveloped areas) the acceleration of economic development would lead to the implementation of one of the principles of the social order in Yugoslavia, that of economic equality'.

while Ćibailović (1965, p.568) begins his discussion of the regional question 'from the premise that without economic equality there is no national equality'.

Regional and National Development

Although the objective of development of the backward regions is often expressed, in the first instance, as a political value-judgement and referred to its wider social aspects, much of the detailed discussion sets it in an economic context, related specifically to the development of the country as a whole. Tošorović (1962, p.101) points out that the development of the country as a whole depends on the development of its various parts:

'A region is not isolated relative to the national economy, but is interdependently linked with all other regions. The general level of economic development is therefore the result of the size of the growth rate in each region individually, or of all together. To the extent, therefore, that all regions develop more rapidly, the overall growth rate will be higher'.

The underdeveloped regions contain productive resources which are
not being adequately mobilised to contribute to the development of the country as a whole. According to Stojanović (1960, p.300):

'An underdeveloped area is a "bottleneck" for the economy as a whole in precisely the same way as an underdeveloped sector. Both types of "bottleneck" bring the same economic result: a loss of the growth of production through the underutilisation of productive factors.... Underdeveloped regions are like paralysed limbs in an economy, deforming its normal growth and functioning'.

And similarly Kubović (1961, p.7):

'The fuller utilisation of the material, human and natural resources of all parts of the country promotes the more vigorous and rapid development of the Yugoslav economy as a whole'.

Mihailović (1962, p.17) criticises the approach to regional problems adopted in capitalist countries, for failing to make regional development an integral part of national development:

'Unequal territorial development was, and has remained, a motive and basis for state intervention in Western countries. This intervention has on occasion been very extensive, but, irrespective of its extent, it has been confined to the most important corrections, and has only taken place after the problems have reached such a state that they can no longer be tolerated, from an economic or social point of view. This ex post intervention shows that regional development has not been, or become, an integral part of a single comprehensive and active policy of development for the economy as a whole'.

After criticising Western location theorists for their 'inappropriate application of the micro-economic criterion' of profit-maximisation to a problem which requires criteria relating to 'the entire social economy and its development', he urges that the 'regional problem' should be considered as the 'regional aspect of economic development':

'Its role consists in mobilising available productive potential, by establishing economically appropriate proportions in the territorial structure of the economy, for the more complete and successful achievement of social and economic objectives. The regional aspect takes account of the global economic effect of all factors in individual types of area, and their combination in general economic development'.

(Mihailović (1962, p.27)).
Miodrag Jelić (1965, pp.14-26) also warns against the danger of interpreting 'economic rationality' in terms of the profitability of individual projects, when the appropriate criterion must be, explicitly, that of 'minimum social cost'. He acknowledges that a strictly economic justification for the development of the underdeveloped regions may be difficult to find, on the basis solely of the profitability of individual projects, and within a short time-horizon; but, nevertheless, he criticises the tendency for too restrictive an interpretation of profitability to favour the location of projects in the more developed regions, when the appropriate social criterion would favour the underdeveloped regions. He elaborates on two reasons why the social rather than 'individual' return must be explicitly considered. In the underdeveloped regions, each project tends to incur certain costs for the provision of the necessary infrastructure, while in a more developed region fuller facilities are normally available and their capital cost ignored, although, in the longer-run, heavy expenditure will be required for reconstruction and conversion. Moreover, since individual 'rentability' (profitability) depends on the 'social rentability of the milieu', it cannot be a criterion until the underdeveloped regions have achieved the appropriate degree of 'social rentability', a clear reference to the importance of the external economies of development.

Income Redistribution

The Yugoslavs' own approach to the regional problem thus concentrates on 'development', the better utilisation of the resources of the underdeveloped regions, but in the context of national development. While this has been the centre-piece of regional policy, alternative lines of

1. References below to Jelić alone will be to Borivoje Jelić.
solution are available, and 'ave been used, in a lesser role.

The regional problem arises from differences between the geographical distribution of economic activity and of population, certain regions generating a larger volume of output, relative to their population, than others. A straightforward solution is to accept the existing location of both population and economic activity, but to reduce the disparities by a redistribution of income from richer to poorer regions. On this approach, regional equality is assessed in terms of 'income received', rather than in terms of 'income produced', the concept which underlies the 'development' approach.

Redistributional measures are applied in Yugoslavia, in the form of budgetary assistance to the poorer regions and social security payments to their inhabitants, but are rejected as a long-term solution. Kardelj (1964, p.169-171) repudiates 'mechanical redistribution' as in contradiction to the principle of 'each according to his ability and to each according to his work', on which economic equality must be based. Mihailović (1965, p.568) similarly rejects equality through income redistribution:

'By equality is meant such changes in the structure of the economy and society as will realise equal conditions for all socio-economic groups... It is concerned with realising equal opportunities, and not with the mechanical equalisation of personal incomes and the repudiation of distribution according to work'.

The development approach itself may be used, as is the experience of many countries, as a cover for a measure of redistribution. When a 'development' project which is not justifiable on the basis of its social rentability, even in the wide interpretation given by Mihailović and Miodrag Jelić above, is nevertheless implemented, the discrepancy between its actual and social opportunity returns represents a
redistributional or 'relief' component. Stojanović (1962, p.62) rejects development policy implemented as assistance:

'However, the more rapid development of the underdeveloped, or insufficiently developed, regions, is sometimes wrongly treated as granting economic assistance to these regions; in other words, that society as a whole makes sacrifices for the more rapid development of those areas which, in its legacy, capitalism left underdeveloped. If, to repeat, regional development is regarded as the optimal territorial organisation of the factors of production within the framework of the entire economy, then, in the longer run, economic assistance can never exist, because the very meaning of 'assistance' is such that it conceals within in itself something that is a loss for some-one, which he undergoes for the benefit of another'.

Migration

Intra-regional migration, the movement of workers into higher-productivity employment in a different locality, raises the level of regional output: inter-regional migration, similarly, increases national output. Output in the losing region, however, is not increased, unless the marginal productivity of labour there is negative - a very extreme case of 'underemployment' - but remains unchanged, provided the migrants were previously unemployed or underemployed (at zero marginal productivity), or are replaced in their previous employment (possibly after a sequence of job-shifts), with no reduction in output, by others not formerly employed. The reduction, as a result of migration, in the number of recipients (including dependents) of the given level of regional output improves income per head. Even if the total labour-force, and, consequently, regional output, are reduced by emigration, the differential in output per worker, between the emigrant and the recipient region, will, on the static assumptions of a given capital stock and diminishing marginal productivity of labour, be reduced. Thus inter-regional migration
brings certain improvements, in the short-run, and without increasing
the level of regional output, in the position of the poorer regions.
The longer-term, or dynamic, effect is, however, less clear. Yrdal
(1957, pp.27-28) sees inter-regional migration as a disequilibrating
force, since its selectivity 'at least with respect to the migrant's
age' will, through its adverse effect on the age-structure of the
population in the losing region, reduce the participation rate. To
this can be added a further long-term loss of output as a result of
the qualitative selectivity of emigration, the departure of the more
ambitious and energetic members of the labour-force reducing the rate
of innovation.

Yugoslav economists, however, are not concerned at these possible
long-term consequences. Without explicitly distinguishing intra- from
inter-regional migration, they recognise that, for the foreseeable
future, population movement has an important contribution to make to
the 'development' solution of the regional problem. Mihailović (1965,
p.570, 573), for example, asserts that

'Nothing would be so economically naïve as the assertion that
all areas have the same conditions for development, allowing the
same concentration of economic activity and population, and, from
their own potential, offer the same contribution to the develop-
ment of the economy as a whole'.

'The territorial redistribution of population plays an
important role, whether the concern is with equality (of
development) or priority areas, or, indeed, with the solution
of the apparent contradictions between these two claims'.

Stojanović (1963a, pp.682-683) makes a similar distinction between
'active' regions, suitable for development and the further concentration
of population and 'passive' regions, which must lose population:

'(The uneven distribution of population) requires that economic
regions must be clearly delimited, in respect of those which
are to be immigration, and which emigration, regions... It is
quite clear that each region in Yugoslavia is not, and will not be, (even after 1970) in a position to absorb the entire labour-force on its territory. This means that, in planning, we must foresee the way in which the labour force will increase among the individual regions.

... In pursuit of the objective of the greatest possible economic effect from investment, even in the longer-run investment will not be justified in some exceptionally passive regions, that is, where there is little concentration of population, natural resources (as known at the moment) are particularly meagre, and the other basic pre-conditions for development, (in particular, infra-structure) scarcely exist. The concentration of investment into economically active areas will bring far greater economic results'.

A Composite Approach

Although conceptually distinct, those three lines of solution, development, income redistribution and population migration, each play some role in Yugoslav policy, and prove neither mutually exclusive, nor even independent, in practice. Budgetary transfers, aimed at narrowing the differences in the standard of social service, particularly in education and health, provided in the various regions, assists migration, by making the population better equipped to move. Migration reduces the size of the population for whom development has to be organised. Development itself, perhaps slightly surprisingly, tends to promote, rather than retard, migration; the creation of new employment opportunities in underdeveloped areas, in factories and on construction sites, awakens an appreciation of even better opportunities available in other regions, or, sometimes, abroad. By improving the efficiency of the national labour market and encouraging the relocation of population, 'development' makes a double contribution to the solution of the regional problem.

Both the redistribution of income and migration can, however, be effective to only a limited extent. Redistribution can be only a
palliative, not a cure, for low incomes; with one-third of the population involved, at a level of per capita output only half of that for the rest of the country, the equalisation of incomes would require a larger transfer than could be acceptable to the other regions: instead of promoting national unity, regional policy along these lines would create political friction. The simple fact, again, that one-third of the population is involved, and 40 per cent of the national territory, precludes migration as the principal solution. The nationality differences are an obstacle to migration: all emigrants from Macedonia and Kosmet, for example, and all immigrants into Slovenia, face a language problem, in addition to the ubiquitous differences of culture and dialect. Population movement can be facilitated by government action, through the provision of training centres and sponsorship schemes, but, barring compulsory resettlement, individual initiative must do the rest. Migration, even if socially acceptable on the necessary scale, cannot be a costless solution; apart from the social costs involved in the run-down of communities in the regions losing population, and the direct costs of movement, borne by the individual migrant, heavy investment expenditure is required for the provision of social overhead capital in the recipient areas. These alternative approaches have therefore had only a subsidiary role, while the centre-piece of policy has been development, but within the context of the development of the economy as a whole.
(iii) The First Attempt: The Five-Year Plan, 1947-52

The first attempt to promote the development of the backward regions was launched, as part of an ambitious programme for the development of the country as a whole, by the new Communist government which came to power at the end of the Second World War. To implement this programme it swept away pre-war capitalism and introduced a system of economic planning and management closely modelled on that of the U.S.S.R.

All the means of production were progressively nationalised, with the exceptions of private peasant holdings in agriculture, and of equipment in handicrafts, and in small sections of the construction industry, retail trade and personal services. The exemption of agricultural land constituted the major deviation from the Soviet model; the exemption was made ostensibly on the principle 'that 'the land belongs to those who work it' (Yugoslavia (1946, art. 19)) but outright nationalisation was politically impossible because of the important part played by the peasants in the Partisan struggle. However, a maximum land holding, generally of 25 hectares of arable land, was imposed, and the larger private estates expropriated. The other exempted sectors were left in private hands for the practical reason that their small scale of operation would have made them difficult and costly to administer. To ensure that the survival of private ownership of the means of production, even in this limited form, could not give rise to any resurgence of capitalism, the employment of wage-labour was restricted to five persons. The new regime thus established direct state control over virtually all economic activity, with the exception of agriculture, which continued to be over 90 per cent in private
hands, and handicrafts.

Centralised Directive Planning

State control of economic activity was implemented through the system familiar in the U.S.S.R. and, later, in much of Eastern Europe, characterised, retrospectively, in Yugoslavia, as 'centralised directive planning'. 1. A hierarchical structure of Ministries and other bodies was established, to control and administer the various sectors of the economy. The state attempted to control virtually all decision-making by planning in great detail, in predominantly physical terms, and by posing plans and their fulfilment as directives to the enterprises, which formed the lowest tier in the administrative hierarchy. 2.

Zeković (1957a, p.24) sums up the system in these terms:

'Above all, the economic system was characterised by the unlimited intervention of the state in the economic life of the country... The state apparatus was the organiser and direct manager of all economic activity'.

Kardelj (1953, pp.1-2) has given two reasons for the adoption of this system, the backwardness of the country, and the hegemony of Soviet ideology:

'When the first federal Constitution was adopted (in 1946), our country was at the beginning of its socialist development, both in its material aspects and in socialist experience. Our deliberate socialist aspirations were then limited and impeded, in particular, by two objective factors: the backward condition of the country, with all the material, social and political consequences of this, and the hegemony of Soviet ideology, which was a strong influence on us at that time. These two factors... found expression in the relatively strong emphasis on the role of the state apparatus'.

Jelić (1962, pp.47-48) similarly justifies it for the more narrowly

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1. This term, or a similar one, is in common use: this is the precise term used by Borivoje Jelić (1962).
2. The principles and operation of this system are well described in Jelić (1962, part II) and Zeković (1957a).
economic purpose of implementing 'the priority task of raising the country's rate of accumulation and rate of growth, and of concentrating available resources on these priority objectives', which, he believed, could be achieved 'only through the single organised force in existence at that time - the new state'.

Centralised directive planning was particularly favourable for the underdeveloped regions, as the state both determined and implemented the pattern of development. The centralisation of all investment funds and investment decisions eliminated any institutional difficulties to securing the necessary resources for the backward regions; their development was absorbed into the general process of organising national development. Grlić-Kov (1953, pp. 273-274) summarises the impact of this system:

'The system of centralised distribution of accumulation was a fundamental characteristic of this period. Within it, the direct determination of the rate of economic development and the volume of accumulation was the basic method of financing the more rapid development of the underdeveloped regions. There is certainly greater opportunity for more precise planning of the rate of development in underdeveloped areas within the framework of this system, and a better situation in respect of the other necessary conditions for planning complex development, according to given conditions of the factors of production'.

The First Five-Year Plan

The First Five-Year Plan, (Yugoslavia (1947-51)), introduced in April 1947, was an ambitious programme for the development of the national economy, of which the elimination of the differences between the regions formed a part. Although it contained a grand list of objectives, affecting every area of economic life, the keynote of the Plan was 'industrialisation', particularly the build-up of heavy industry. In his speech to the National Assembly during the debate on the Plan, Hito
(1947, p.7) described it as 'the Plan for the industrialisation and electrification of our country', echoing Lenin in a phrase which was often repeated.

The Plan objectives for the underdeveloped regions were 'to ensure a speedier rate of development in the backward People's Republics and remove all the consequences of uneven development' and 'to remove the inequalities in the development of the People's Republics and build Yugoslavia as an economic whole'. (Yugoslavia (1947-51, arts.5, 21)). Special efforts were scheduled for the Republics of Bosnia-Hercegovina, Macedonia and Montenegro, and also 'backward areas in other Republics', although these were not specified by name. This objective was to be secured through 'the most rapid increase possible in production and investment', and, in particular, the targets set for the level of investment and the growth of industrial production in the three Republics were substantially above those for the rest of the country.

At this time, the problem of regional backwardness was already seen as a microcosm of the national problem, the more acute local incidence of the underdevelopment prevailing in the economy as a whole. As 'industrialisation' was to be the spearhead of national economic progress, so an even higher rate of industrial development in the backward regions was to close the gap between them and the others; the process of development was to be the same, but at an accelerated rate, through an even more intensive drive to industrialisation. The time-horizon for eliminating the disparities was not specified, but was intended to be, if not precisely the five years of the Plan period, at least relatively short.

Drawn up as it was in an atmosphere of revolutionary fervour, when
great achievements were expected from the socialist system and the revolutionary ardour of the people, the targets in the Plan were set, as was later recognised, at an impossibly high level, as statements of ambition, rather than precise targets. The Polish economist Dobrowski (1956, pp.30-81), a sympathetic observer, gives as his opinion that

'The Yugoslav Five-Year Plan, as it was adopted by the People's Assembly of Yugoslavia in April 1947, is a curious document. It certainly does not always do credit to its authors - errors of detail are numerous, and the whole is an error. The line of argument very common today, which retains of this Plan only its excessive size, is, however, an over-simplification. On a closer look it appears rather as a mixture of good and mistaken ideas. Most often mistaken, moreover, precisely because of lack of moderation'.

The objectives for the underdeveloped regions were certainly formulated with insufficient regard to the time necessary to eliminate a legacy of several centuries, overlooking even the inefficiencies in production which would inevitably result, in the initial years, from lack of experience. The development of the backward regions was, moreover, a secondary objective in the Plan; as Uvalić (1962, p.296) points out:

'Because the First Five-Year Plan had as its priority task the construction of the basic industries and the electricity supply industry, it is understandable that the underdeveloped Republics could participate in this only to the extent that they possessed the necessary conditions for the development of these sectors. The tasks set out in the Plan figures for the underdeveloped Republics represented, therefore, an expression of aspiration rather than guaranteed conditions for its achievement'.

However, the objectives set out in the Plan soon lost their relevance to practical decisions. The Plan was in only its second year of implementation when Yugoslavia was expelled from the Co-inform and

1. 'The enthusiasm for work with which our people are building a free homeland is the very same concrete expression of our new, sincere patriotism as was militant self-sacrifice in the War of Liberation'. (Kirić (1943, p.206)).
subjected to economic blockade and the threat of invasion by the East European nations. Half of the country's external trade was disrupted, and supplies of essential industrial materials and equipment cut off; in 1947 56 per cent of Yugoslavia's imports and 53 per cent of exports had been traded with the Cominform countries, and in 1949 only 14 per cent of each. Simultaneously, the country had to re-arm rapidly, as a protection against possible invasion.

The strain placed on the planning mechanism, by these events, became severe. With resources already over-committed by the Plan, many supplies disrupted and priorities frequently rescheduled with changing circumstances, 'planning' gave way increasingly to ad hoc decisions, frequently ill-considered and hastily adopted under the pressure of events. The Plan itself was first reduced in scope by the postponement of a number of less urgent projects, including a number in the under-developed Republics, then extended for one year, to run until the end of 1952, and finally superseded by the Key Investment Programme. This Programme reduced the Plan tasks to manageable proportions, by the selection of only a small number of national importance and, mainly, in the basic industries and transport. These were, in effect, scheduled as individual tasks rather than as a full development plan. Thus, only four years after the socialist revolution in the economy, comprehensive and long-term planning was, for the time being, abandoned.

Development during the First Five-Year Plan

The results of this first attack on the economic backwardness of the country, in the course of the First Five-Year Plan, were, in

1. Details of the effects of the blockade are given in Economic Commission for Europe (1954, no.111-112) and Zeković (1957b, pp.209-212).
general, meagre, although a few notable developments were achieved.

Over the six years 1947-52, the national income of Yugoslavia increased at an average annual rate of only 2.2 per cent (0.9 per cent per head of population). The major sectors, however, yielded widely differing rates, industry and transport growing fairly rapidly, at 6.2 and 6.4 per cent respectively, while agriculture, by contrast, showed an annual decline of 3.2 per cent. Industry, transport and construction each followed a similar year-to-year pattern of rapid expansion between 1947 and 1949, checked in 1950 and reversed into a decline in 1951 and 1952; agricultural output, on the other hand, fluctuated widely from year to year, with notably poor results in 1950 and 1952; these agricultural fluctuations outweighed the growth trends of the other sectors in their influence on the year-to-year movement of national income. (Table 1-4).

Among the individual regions, the highest growth rates were achieved by Bosnia-Hercegovina, Croatia and Slovenia, while in Vojvodina, the most agricultural of the regions, the level of total income fell. (Table 1-5). Their higher rates of population increase resulted in

1. Output figures are available, by region, only for net output and for 1947 and 1952, the two end-years of the period. Regional growth rates have therefore to be calculated by compound interest. For Yugoslavia as a whole, the availability of annual figures makes it possible to calculate trend growth rates (by fitting a regression line, in semi-log form, by least squares). The results compare as follows:

<table>
<thead>
<tr>
<th></th>
<th>Trend Rate (%)</th>
<th>Compound (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Income</td>
<td>1.9</td>
<td>2.2</td>
</tr>
<tr>
<td>Agriculture</td>
<td>-2.3</td>
<td>-3.2</td>
</tr>
<tr>
<td>Industry</td>
<td>5.2</td>
<td>6.2</td>
</tr>
<tr>
<td>Transport</td>
<td>6.2</td>
<td>6.4</td>
</tr>
<tr>
<td>Construction</td>
<td>-0.6</td>
<td>1.0</td>
</tr>
</tbody>
</table>

While the trend rate is the preferable measure, in that it incorporates the growth in each year, the compound interest rates give a sufficiently good approximation for the general conclusions to remain unaltered.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>% Annual Charge</td>
<td>-</td>
<td>+20.2</td>
<td>+8.4</td>
<td>-0.3</td>
<td>+0.5</td>
<td>-13.6</td>
</tr>
</tbody>
</table>

| Agriculture (billion dinars)    | 425  | 494  | 507  | 374  | 543  | 362  |
| % Annual Charge                 | -    | +16.2| +2.6 | -26.2| +45.2| -33.3|

| Industry (billion dinars)       | 330  | 400  | 452  | 455  | 449  | 445  |
| % Annual Charge                 | -    | +23.9| +10.5| +0.7 | -1.3 | -0.9 |

| Transport (billion dinars)      | 54   | 70   | 84   | 91   | 85   | 73   |
| % Annual Charge                 | -    | +30  | +20  | +8   | -7   | -14  |

| Construction (billion dinars)   | 106  | 131  | 159  | 144  | 115  | 112  |
| % Annual Charge                 | -    | +24  | +21  | -9   | -20  | -3   |

One 'billion' here, and in other Tables, represents one thousand million.

All dinar valuations in this Table are at prices of 1960.
<table>
<thead>
<tr>
<th></th>
<th>National Income</th>
<th>Income per Head</th>
<th>Agriculture</th>
<th>Industry</th>
<th>Transport</th>
<th>Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yugoslavia</td>
<td>2.2</td>
<td>0.9</td>
<td>-3.2</td>
<td>6.2</td>
<td>5.4</td>
<td>1.0</td>
</tr>
<tr>
<td>Slovenia</td>
<td>3.1*</td>
<td>2.1*</td>
<td>0.0*</td>
<td>6.9*</td>
<td>7.2*</td>
<td>-3.0</td>
</tr>
<tr>
<td>Croatia</td>
<td>3.4*</td>
<td>2.5*</td>
<td>-3.0*</td>
<td>5.9</td>
<td>3.4</td>
<td>-0.1</td>
</tr>
<tr>
<td>Vojvodina</td>
<td>-2.5</td>
<td>-3.0</td>
<td>-6.3</td>
<td>0.9</td>
<td>5.5</td>
<td>-1.7</td>
</tr>
<tr>
<td>Serbia Proper</td>
<td>1.6</td>
<td>0.1</td>
<td>-2.8*</td>
<td>5.5</td>
<td>6.4</td>
<td>-0.3</td>
</tr>
<tr>
<td>Bosnia-Hercegovina</td>
<td>4.0*</td>
<td>2.0*</td>
<td>-1.8*</td>
<td>3.9*</td>
<td>20.7*</td>
<td>5.1*</td>
</tr>
<tr>
<td>Macedonia</td>
<td>2.4*</td>
<td>0.0</td>
<td>-4.4</td>
<td>6.2</td>
<td>3.6</td>
<td>7.9*</td>
</tr>
<tr>
<td>Montenegro</td>
<td>1.1</td>
<td>-1.3</td>
<td>-3.7</td>
<td>7.8*</td>
<td>3.6*</td>
<td>-2.4</td>
</tr>
<tr>
<td>Kosmet</td>
<td>1.6</td>
<td>-0.4</td>
<td>-4.5</td>
<td>9.2*</td>
<td>7.3*</td>
<td>-2.3</td>
</tr>
</tbody>
</table>

* denotes a growth rate above the national average.

NOTE: Growth rates have been calculated by compound interest.
an even less favourable position for the underdeveloped regions in the growth of regional income per head. Bosnia-Hercegovina, first in the ranking by the growth of total income, dropped to third place, behind Croatia and Slovenia: the growth of income in Macedonia was exactly offset, while in Montenegro and Kosovo the growth of regional income was less than the increase in population, bringing a fall in per capita income. Thus only Bosnia-Hercegovina, among the underdeveloped regions, and only Slovenia and Croatia, among the others, achieved any increase in income per head during the years of the first Five-Year Plan.

The growth of industrial output, which the Plan had made the spearhead of development, for the underdeveloped regions as for the country as a whole, ¹ was not only rapid in each of the underdeveloped Republics, (and also in Kosovo), but more rapid than in the rest of the country; so, also, for the most part, was the growth of transport. To this extent, the Plan objectives for the underdeveloped regions were implemented, although less strongly than had been intended in the Plan. But, on the other hand, with the exception of Bosnia-Hercegovina, the underdeveloped regions suffered a more severe decline in agricultural output than did the others (apart from Vojvodina). The lower level of development there made agriculture of relatively greater, and industry of lesser, importance, in the output structure of the underdeveloped regions. The net outcome of these various opposing tendencies was favourable only in the case of Bosnia-Hercegovina, while in the other three regions the resulting growth of regional income was so low that it was fully absorbed by the increase in population.

Annual figures for regional income are not available to show whether

¹. In the Yugoslav industrial classification, electricity (generation and distribution) is included within 'industry'.
the check to national growth from 1950 had a differential regional impact. On the evidence of the index of industrial production (Savezni Zavod za Statistiku: Statistički bilten 21, Table 2-2) the three under-developed Republics suffered less of a set-back than the others: the index for Bosnia-Hercegovina was virtually unchanged in 1950, 1951 and 1952, while for Macedonia and Montenegro it fell between 1950 and 1951, but increased again in 1952, in Macedonia to almost its level of 1950, in Montenegro to well above it. But the methodological problems of compiling such an index, on a pre-war base (1939) and for regions where industrialisation was only beginning, limit the accuracy of the detailed figures.

The principal feature of the development of the underdeveloped regions during these years was the growth of industry in Bosnia-Hercegovina. This, however, derived from the priority of the 'basic sectors' in the Plan, rather than from the priority of an underdeveloped region. The region's resources of iron-ore, coal, water-power and timber constituted the country's most important resource base for the 'basic industries', and this brought an intensive build-up of heavy industry in their vicinity. In 1946 a small steel-mill (capacity 80,000 tons) already existed at Zenica, and between 1947 and 1952 half of the total investment in the iron and steel industry in Yugoslavia was directed into Bosnia, supplemented by high levels of investment in priority sectors such as electricity and coal. In addition to the high quality of its natural resources, Bosnia had the further advantage of being well placed from the strategic point of view, in the heart of the country, well removed from exposed frontiers; this consideration was of particular importance from 1949. By 1952-53 the build-up of the coal and steel complex in central Bosnia, in centres such as Zenica,
Travnik, Kakanj and Tuzla, was well advanced, supported by developments in transport and electricity supply. Given the original Plan priorities and the subsequent importance of defence and re-armament, the resources of Bosnia would have been intensively exploited, irrespective of their regional location. It was fortuitous, but also gratifying, that the intensive development of the basic sectors took place so predominantly in the largest of the underdeveloped regions. Uvalić (1962, p.297) has summed up the development of Bosnia-Hercegovina at this time:

"Because it was necessary to develop heavy industry as rapidly as possible, account was taken of which location would, by the closest possible proximity to sources of raw materials, require the smallest and least expensive investment. Associated with these were, moreover, very important strategic considerations, which sought the location of important industrial projects at a distance from the frontiers which could, at that time, be regarded as in danger. All this makes clear why, throughout the whole post-war build-up of industry, the Republic of Bosnia-Hercegovina was particularly favoured, among the underdeveloped regions; it corresponded best to the requirements just mentioned, both in respect of the raw materials available, and of its distance from the frontiers."

Lacking the resource endowments of Bosnia-Hercegovina, the other underdeveloped regions could not compete, as locations for industrial development, with Slovenia and Croatia, with their great advantages in experience and previously installed capacity. The scheduled Republics, Macedonia and Montenegro, were not, however, entirely left aside from development efforts, both receiving relatively high levels of investment, as is shown in Table 1-6. The share of Montenegro in total investment was higher than its shares in both national income and population, that is, it exceeded the national average in both its investment ratio and the level of investment per head, a position shared only by Bosnia-Hercegovina among all the regions. Macedonia was slightly less favoured, being above the average in investment ratio, but below in investment per head. Both Republics received relatively
<table>
<thead>
<tr>
<th>Region</th>
<th>National Income</th>
<th>Population</th>
<th>Total Investment</th>
<th>Investment in Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yugoslavia</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Slovenia</td>
<td>16.3</td>
<td>9.0</td>
<td>14.5*</td>
<td>18.2**</td>
</tr>
<tr>
<td>Croatia</td>
<td>26.4</td>
<td>23.7</td>
<td>24.0*</td>
<td>23.0</td>
</tr>
<tr>
<td>Vojvodina</td>
<td>10.3</td>
<td>10.3</td>
<td>5.2</td>
<td>4.1</td>
</tr>
<tr>
<td>Serbia Proper</td>
<td>24.6</td>
<td>26.2</td>
<td>22.6</td>
<td>22.9</td>
</tr>
<tr>
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<td>14.0</td>
<td>16.4</td>
<td>20.1**</td>
<td>20.3**</td>
</tr>
<tr>
<td>Macedonia</td>
<td>4.6</td>
<td>7.4</td>
<td>5.6+</td>
<td>5.2+</td>
</tr>
<tr>
<td>Montenegro</td>
<td>1.6</td>
<td>2.4</td>
<td>3.1**</td>
<td>2.3+</td>
</tr>
<tr>
<td>Kosovo</td>
<td>2.3</td>
<td>4.6</td>
<td>2.2</td>
<td>2.2</td>
</tr>
</tbody>
</table>

Unallocated by region: 2.7 1.3

Each region is shown as a percentage of the figure for Yugoslavia. The shares in national income are the average of the two years, 1947 and 1952, which are the only years available; the other figures are averages of the shares in each of the six years.

+ denotes an investment ratio above the national average.

* denotes a level of investment per head above the national average.
high shares of the investment in industry, without matching the very high levels of Bosnia-Hercegovina and Slovenia. In spite of the difficulties of the time, therefore, the Plan objective for investment in the poorer Republics was partially put into effect.

In 1946 Montenegro had had no industry at all, most inadequate communications, and low levels of agricultural and handicraft production. Initially, investment efforts were confined to the construction of transport facilities; the region's first railways were built (from Titograd to the coast, and from Nikšić to Titograd) and several roads were improved. Industrial investment increased after 1949, but was largely limited to two sectors, electricity and steel, and in effect, to two projects, the Gornja Zeta hydro-electric scheme and the (later notorious) Nikšić steel-works. None of these projects could pay off immediately - several, indeed, were not completed by 1952 - but must, nevertheless, be accredited to the development efforts made for the Republic during the Plan.

In Macedonia, also, some foundation was laid for future growth. Flood control on the Vardar, linked with irrigation and soil-conservation, extended and improved the central agricultural area. In industry, electricity generation (at Vavrovo), the quarrying of feldspar and the production of textiles and tobacco were all expanded, but the level of industrial development remained very low.

Virtually nothing was achieved for the development of Kosmet at this time. It was the only one of the underdeveloped regions (and, admittedly, it was not nationally scheduled as such) where the level of investment was lower, relative to both regional income and population, than in the country as a whole. Of its meagre level of industrial investment, half was directed into lead-mining which, in
1952, remained its only industrial activity of any note. By 1952-53
the level of income per head in Kosmet was lower, and the development
prospects certainly no better, than in 1947.

The growth of output, and even the level of realised investment,
in the underdeveloped regions, thus fell far short of the ambitions
expressed in the Plan. In part this was inevitable, from the 'lack of
moderation' which Rohowski (1956, p. 31) noted in the Plan. But the
dominant economic influence of the period was not the Plan, but the
'Cominform troubles', (as they came to be called) bringing the blockade
and the emphasis on defence. This serious set-back to the development
of the country as a whole proved somewhat of a mixed blessing to the
underdeveloped regions. The intensified build-up of the basic
industries accelerated the industrial development of Bosnia-Hercegovina,
which would, in any event, have moved ahead strongly, but it caused the
postponement of various projects in Montenegro, while burdening the
region with an unwanted and badly located steel-mill,\(^1\) and retarded
the development of light industry, for which Macedonia was particularly
well suited. Kosmet suffered severely from the change in political
attitudes. The abrupt reorientation of Yugoslav trade away from the
Cominform countries renewed the locational advantages which the more
northerly regions had enjoyed in the days of the Austrian empire, and
emphasised the remoteness and poor access opportunities of much of the
underdeveloped part of the country.

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The Need for Change

By 1951-52 it was obvious that the economic position of the country
was most unsatisfactory. Investment had been maintained at the very
\(^1\) This is discussed more fully below, in the subsequent development of
Montenegro (Chapter 4 (iii)).
high level of 32-33 per cent of social product in each year until 1952, when the cut-back to the Plan reduced it to 30 per cent, but the growth of output was not impressive. A substantial part of the investment during the period, such as the 24 per cent which had been devoted to transport, and the further portions for other infrastructure, would yield its full results only in the longer-term. But industry had been the major development priority, and after 1949 had failed to achieve any increase in output. Agriculture, still by far the largest sector, had been reduced to a very serious plight by the victimisation of the private sector, and the policy of forced collectivisation implemented between 1949 and 1952; agricultural output in 1952 was one of the lowest levels recorded, and one-third below its level of 1951. The disruption to production caused by the blockade was still being felt, but those responsible for economic management had increasingly to recognise that a larger part of the difficulties lay in the inadequacies of the system of centralised directive planning, and that, if development was to proceed successfully, major changes would have to be made.
2. DECENTRALISED PLANNING

(i) The Principle of Decentralisation

The system of decentralised planning, with its bold and original innovations, was devised by the Yugoslav authorities as a repudiation of centralised directive planning. The immediate practical motivation for change derived from the growing inefficiency of administrative planning, but, in addition, the ideological foundations of the Soviet system no longer received the same unquestioning acceptance as prior to the break with the Cominform.

Tito himself (1952, pp.72-79) voiced strong criticism to the Communist Party Congress of the inefficiencies in the implementation of the Plan:

'It is necessary to underline that, after the announcement of investment decisions and in our struggle not to exceed the planned periods, we had to undertake almost all investment construction, without having the projects elaborated in full; this, in a number of cases, forced us to carry through an uneconomic project and, later, to effect corrections which cost us precious millions...

A further fault of the Five-Year Plan (was) that a large number of projects were constructed without sufficient attention to their profitability, both from the point of view of the balance of payments and of their domestic economic impact...

An even more serious defect was the megalomania which dominated the execution of numerous projects and which had to be remedied when it had already caused serious losses'.

The intrinsic deficiencies of the system are pointed out by Jelić (1962, pp.126-127):

'With centralised management and the administrative intervention of the state apparatus, the problem of initiative in state economic enterprises inevitably became acute... Maximum energy could be used only in the direction of the best possible fulfilment of Plan tasks, without much opportunity for the correction of eventual inconsistencies or, as is even more important, for the effective utilisation of those opportunities and advantages which a centrally prepared Plan could not foresee. In an underdeveloped economy, where the whole of development is directed to a few basic tasks, this problem does not,
initially, take acute form. However, as the economy develops, and development presents itself increasingly as a complex process, strongly centralised planning and administrative management are increasingly less suitable for the effective exploitation of the many possibilities offered by the complex life of a modern economy.

The criticisms of centralised directive planning were formalised, particularly by Kardelj, around the theme that the system had outlived its usefulness. As there had been, on his analysis, a twofold reason for its adoption in 1946, in the backwardness of the country and the hegemony of Soviet ideology, both were felt, from 1950, to apply in the opposite direction, for the ending of strict centralisation:

'If we reject that system (centralised directive planning) today, we do so not because we believe we made a mistake formerly, but because we think that we have, for the most part, attained the objective which we established and can, therefore, now move further'. (Kardelj (1954b, pp.259-261)).

But he further acknowledged that the introduction of changes was 'undoubtedly accelerated and crystallised by our struggle against the aggressive repression of Soviet hegemony' and the fear of 'bureaucratic degeneration' and the growth of 'state capitalism' which the Yugoslavs observed in the U.S.S.R. and, incidently, in their own system. 2.

From the more narrowly economic point of view, a similar rationale for changes is given by Jelić (1962, p.127):

'Conditions were ripe for changes in the economic position of the country. A major extension of economic activity was imminent as a result of the extensive process of investment. A major expansion of production was expected... The entire process of the further construction of a socialist society could not continue under the old methods, the framework of which had become restrictive and inadequate'.

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1. Above, p.39.
2. The most famous exposition of 'bureaucratism' is that given by the disillusioned Djilas (1957).
system of decentralised planning spanned several years: it can, indeed, 
be said that, some fifteen years later, the system is still transitional, 
searching for definitive form. But its essential characteristic, the 
balancing of centralised and decentralised decision-making, as it was 
established around 1953, was not fundamentally altered by the frequent, 
sometimes extensive, modifications made between then and the end of 1964. 
The changes of 1950-53, by contrast, by introducing decentralisation, 
were designed to, and did, effect a decisive break with the preceding 
system. Coming as it did only a few years after the socialist revolution 
which had swept away capitalism, the introduction of the new system has 
been described by Auty (1954, p.1) as a 'revolution within a revolution'.

Both the objectives and the methods of centralised directive 
planning were rejected. Mandelj (1954a, p.156) repudiated the 
desirability and usefulness of generalised state management:

'Socialist planned economy does not mean, and must not mean, that it is necessary to subject all activity in society to the state apparatus and to do away with all free growth in this sphere. there can be no progress of socialism without this freedom (of personal initiative in the economy)', \(^1\)

and elsewhere, (Mandelj (1955, p.22))

'No central leadership whatever, no matter how wise it may be, could alone direct economic and social development in total and in detail';

instead, the state organs should be restricted to 'that planning and canalising role which is necessary for the maximum utilisation of the creative energies of society'.

The crucial element in the 'revolution', giving effect to the 
reduction in the functions of the state and the enhanced role of economic

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\(^1\) The emphasis here echoes, in ironic contrast, the famous complaint 
made by Kidrič (1940) to the Communist Party in 1943 that 'our people 
still incline to spontaneity; that is a vestige of the past in their 
conceptions'. 
and other organisations, was the replacement of command by incentive as the principal instrument of economic management. As Kardeli (1955, p.23) observes:

"the maximum effort and initiative of the individual depends not so much on directives, control and checking... as it does upon personal economic and social, cultural and material interests",

and similarly Nesarić (1962, p.591):

"the basic motive-force for the actions of individuals and economic organisation cannot... be a central economic plan, that is, a obligation, a directive or a norm, externally established, but the interest and initiative of the working people themselves and their organisations".

Social Ownership of the Means of Production

A new Constitution (Yugoslavia (1953, art. 4)) gave definitive expression to the fundamental ideas of new system:

'Social ownership of the means of production, self-government of the producers in the economy, and self-government of the working people in commune, town and district, shall be the basis of the social and political organisation of the country'.

The precedence of social ownership of the means of production served to indicate that the new system in no way marked a return to private capitalism. Any justification given for social ownership tended, however, to be on entirely practical grounds: Kardeli (1954a, p.155) notes that

'The importance of social ownership of the means of production is, in part, that it makes possible socialist planning, the elimination of anarchy in production, and the social direction of general economic development'

and Jelić (1962, p.13) similarly that 'social ownership of the means of production makes possible social management of production, and distribution in accordance with social needs'. The pragmatic tone, particularly of Kardeli's remarks, is strikingly different from that of the announcements of nationalisation only a few years
previously; the intervening years of 'state capitalism' had shown that public ownership of itself achieves little. Horvat (1961, p. 106) points the truth of the experience with an apt quotation from Lewis (1949, p. 181):

"In the early days of socialist thought," - writes the West Indian Socialist from Jamaica, W.A. Lewis - "it was almost an axiom that once property passed from private hands to public ownership all the major social problems were automatically solved; it would be put to purposes conforming more to the public interest, income would be more equitably distributed, economic power would be democratised, efficiency would increase, and the class struggle between owners and workers would end. This view has not survived the experience". Prof. Lewis was referring, in the first instance, to British experience, but the conclusion may easily be generalised.

The replacement of 'state' by 'social' ownership of the means of production was not, however, a merely verbal change, but part of a wider set of innovations affecting the entire position of the enterprise, which gave substance to 'self-government of the producers in the economy'.

Workers' Management of Enterprises

The first measure of reorganisation in the economic system had been the enactment, as early as June 1950, of the Law on the Management of Economic Enterprises by their Working Collectives, which provided that (art.1):

Factories, mines, transport, communications, agriculture, forestry, communal and other state economic enterprises representing social property shall be managed, on behalf of the social community, by their working collectives, within the state economic plan.

The working collectives shall exercise this management through the workers' councils and managing boards of the enterprise.

Enterprise assets thus retained 'social property', but the working collectives (all the employees of the enterprise, acting as a body)

1. In 1946 Kirić (1948, p. 50) had triumphantly told the National Assembly: 'Today we are introducing the law for which our working people have long been waiting, for which each true patriot in this country has long been waiting. Today we are introducing the law on the nationalisation of private economic enterprises'.
replaced the state organs as the agencies responsible for their utilisation. 1. Not only did management by the workers offer the ideological advantage 2. of introducing a higher form of social relationship than management by the state bureaucratic apparatus, but also immediate practical advantages; the transfer of decision-making powers to the enterprise reduced the volume of decisions to be made by, and thus the pressure on, the state administration, while simultaneously allowing greater flexibility for the enterprise to adapt to individual opportunities.

It was the end of the following year, however, before the recasting of the entire machinery of economic planning and management brought the transfer of substantive powers to the enterprise and its workers' management. The Law on the Planned Management of the National Economy, enacted in December 1951, brought to an end the executive management of production by the state organs, transferring these functions to the enterprise guided by the market. Instead of implementing detailed production plans prepared and controlled by the appropriate Ministry, the enterprise was, for the most part, allowed and required to determine for itself the type, quality and volume of its output, and its

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1. The idea that enterprises should be run by their employees, directly or through elected representatives, is one of the oldest in socialist thought, but, unlike nationalisation, one of the least commonly implemented. The Yugoslavs were, and have remained, fully conscious of the scale of their innovation; Tito (1952, p.57) described it to the 1952 Congress of the Communist Party (at which the Party turned itself into the League of Communists) as 'an action of historic importance, because, on the one hand, Marxist thought regards it as one of the most essential actions, if not the essential action, in the transformation of the relationships in production and social distribution, and because, on the other hand, it is implemented, for the first time in history, and that after a very brief period of implementation of the revolution, in a small and backward country such as ours'.

2. This was of particular importance to the Yugoslavs at the time, as they sought to define and justify their own position, following their
production processes and inputs. The role of the market was correspondingly expanded, enabling the enterprise to buy materials, intermediate products and equipment, and sell its output competitively, although supplies and prices of a number of scarce products, particularly imports, remained closely controlled.

The restoration, to a substantial extent of the market for products, and to a limited extent for factors, was accompanied by a new importance for the enterprise profit and loss account. Previously, the use of accounting prices, and the absorption of any surplus or deficit into the state budgets, had reduced it to merely an accounting device, with no role as an incentive in enterprise activity. But from 1953, the enterprise was given the formal right, (subject to state regulation) to retain and dispose of the surplus earned in production, as the financial counterpart to its rights and responsibilities for the utilisation of social property through the management of current production.

The corresponding, and even more radical, changes in agriculture soon followed. The failure of the administrative planning of production was first acknowledged, in the abandonment of sowing and delivery plans. But continuing difficulties, culminating in the disastrous harvest of 1952, made the conclusion inescapable that the drive to collectivisation, launched in 1949, was not producing the expected increase in agricultural output; peasant opposition was being expressed in varying degrees of non-cooperation, and many of the co-operatives were proving very inefficient, having been hurriedly set up, without the necessary equipment, organisation and management to conduct the large-scale farming for which they were designed. In 1953, therefore, the policy
of accelerated collectivisation was reversed: those peasants who wished were allowed to withdraw, and unprofitable co-operatives were wound up. The response to this was so strong that in 1954 only 9 per cent of arable land remained in the social sector, against 25 per cent in 1952. In the collectives which survived, the management of production and the disposal of retained profits, earned through the market, were transferred to the members, as in industrial enterprises.

In agriculture, unlike other sectors, the abandonment of centralised directive planning was accompanied by the restoration, to private ownership, of some of the land and equipment which had been brought into the social sector. The continued existence of the private sector, and its important contribution to development, were explicitly accepted from 1953-54; while socialisation remained the objective, incentive replaced coercion as the means, and the time-horizon was extended indefinitely.

In an attempt to maintain the supply of land in the social sector, in spite of the withdrawals from the cooperatives, the maximum land holding was reduced from its original 25 to 10 hectares. With the small size of the vast majority of holdings this measure yielded little acreage, but further widened the gulf between the small-scale farming of the private sector, and the large-scale activity of the social sector.

The Council of Producers

These reforms in the position of the enterprise were paralleled, at the level of macro-economic decision-making, by the establishment, in the 1953 Constitution, of the Council of Producers, as the second Chamber of Assembly at each governmental level. Its members were elected by the 'direct producers' in the economy (the active population), voting by

1. Savetni Zavodi za Statistiku: Jugoslavija 1945-64, Table 5-9.
economic sector instead of geographical constituency. The number of members elected by each sector was made proportional to its share in national product, in order to counterbalance the numerical importance of the agricultural population, in a still predominantly rural society. 1. The vesting in the Council of Producers of responsibility for the conduct of economic affairs was designed to express the rights of producers at the aggregate policy level, supplementing their role, through the workers' collectives, at the level of the enterprise.

The further new Constitution (Yugoslavia (1963)) of 1963 replaced the Council of Producers by an Economic Council and three other specialised Councils (for education and culture, social welfare and health, and political affairs). The powers and responsibilities of the Council of Producers were, however, largely transferred to the Economic Council, and since the change applied only to last few months of 1963-64, reference to the functions of the Council of Producers gives an adequate representation for the entire period 1953-64 covered in this study.

At the political level, the over-concentration of 1947-52 was countered by a conscious emphasis on the territorial decentralisation of political organisation, through the strengthening of the lower governmental units, the Republics, districts and communes.

The Principle of Self-Management

The ideal of the new system, 'decentralisation' or 'self-management', thus aimed at the limitation of the centralised powers of the state in favour of decision-making by society, through the organisations and

1. Is a further measure of discrimination against the private peasant, only the social sector of agriculture was represented in the membership of the Council.
groups most immediately concerned. The implementation of the ideal in the economic sphere, still very incomplete as the Yugoslavs themselves readily acknowledge, was begun by the transfer of certain decision-making powers to the enterprises, and some territorial decentralisation of policy-making. The majority of further changes made between 1953 and 1964 were directed towards the progressive strengthening of decentralisation, by increasing the resources at the disposal of the enterprises and the lower territorial units ('the material basis of self-management') and extending the formal scope of their decision-taking powers.

This extension of the powers and responsibilities of the decentralised units increased the difficulties of the underdeveloped regions. Under the centralised system, the organisation of development in the underdeveloped regions, as in the country as a whole, had been the responsibility of the central planners alone; decentralisation extended this responsibility to the regions themselves and the enterprises located there. The equal footing for all regions in the demands on local resources and initiative was to the disadvantage of the underdeveloped regions, where resources were more limited, and where development required some transfer of resources from richer regions.

Two further features of the system, however, exerted their influence in the opposite direction. The difficulties of the underdeveloped regions under decentralisation have been consistently acknowledged and alleviated by special provisions to increase federal responsibility for their development. Even more importantly, although decentralisation was the ideal, its implementation was far from complete, and many aspects of the practical operation of decentralised planning modified its disadvantages for the underdeveloped regions.
(ii) **Planning by Global Proportions**

The repudiation of centralised directive planning, with its objective of the planning of every detail of economic life, and its implementation through directives, did not, however, involve the rejection of the planned development of the economy. After 1950-51 the Yugoslavs had to devise a new planning system, consistent with the ideal of decentralisation. This duality of objective was pointed out in the detailed report on the problems of the planning system, prepared in 1963 by a committee of experts (Đurić-Kučar et al. (1963, pp.153-159)) 1, who noted that

"The planning system under our conditions must satisfy two requirements simultaneously: (a) that it makes possible the further development and strengthening of socialist relations in society (b) that it makes possible the optimal rate and pattern of economic development."

The evolution of the planning system between 1953 and 1964 can be regarded as a continuing attempt to resolve the tension between these two objectives. In the years 1953-60, greater weight was attached to the effective implementation of planned development, with the degree of decentralisation correspondingly, although decreasingly, limited; particularly from 1961, however, the extension of decentralisation appeared to become the dominant objective, with the planning constraint operating in relatively weak form.

**The Basic Proportions**

The characteristics of the decentralised system, of planning by "global proportions", in contrast with the earlier system, are described by Jelić (1962, 141):

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1. This valuable critique of the operation of the planning system, by a group of eminent Yugoslav economists, seems to have received no attention from Western writers on Yugoslav economic affairs.
'In the system of centralised directive planning, the function of planning was linked with that of direct administration, through the system of obligatory directive tasks and regulations which originated in the plan itself. The new relationships, based on self-management, presuppose the separation of the function of planning from that of direct management.

The second essential characteristic of this system is that the planned intervention of society is reduced to the establishment and implementation of the basic proportions in economic development, that is, of the framework for the economic activity of society, which resolves the basic questions of the rate and structure of development, preventing possible anarchic growth and establishing harmonious relations in development. Simultaneously with these, within the framework of these basic proportions, in a money economy including a market, scope remains for the free initiative of the self-managing organs.

The 'basic proportions' on which planning operated were three (Jelić (1962, pp.145-146)): 1.

(a) The first of the essential elements in planning is the power to influence the distribution of income, particularly between consumption and investment (or consumption and accumulation) and between personal and social consumption. Control of the relationship between consumption and investment is an essential element of planning, because it determines the rate of accumulation, as one of the factors determining the rate of economic growth. From the other side this relationship also simultaneously determines the level of consumption, the second essential element in the social process of reproduction.

The relationship between collective and personal consumption, for its part, determines the relative importance and role of the principal services in meeting the collective requirements of society, and the part of income which is distributed among members of society, for satisfying their individual needs.

(b) The rate of accumulation and the rate of growth are not the only elements which influence the growth of the economy. Within the framework of a given rate of economic growth, it is necessary to have balanced growth among the individual sectors and branches of production, and thus ensure the balanced, coordinated and proportional growth of the economy.

The relationship between the individual sectors of production, at a given time, is determined by existing productive capacity. On the assumption that these relationships in existing productive

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1. This analysis closely follows that of Jelić, formerly of the Federal Planning Office and the most authoritative expositor of the nature of the Yugoslav planning system. A similar analysis is, however, available in numerous sources, Yugoslav writers being unanimous in the description of these formal planning categories.

2. 'Accumulation' will be used in translations from Serbo-Croat where savings and investment are not distinguished as the separate categories which Western terminology requires.
capacity are already in equilibrium, influence is exerted on these relationships in future growth firstly through new investment. The determination of the structure of new investment accordingly also determines the relative levels of available productive capacity, and thus provides the opportunity for influencing the direction of development and the future structure of the economy.

As a result of this, determining the structure of investment is one of the basic characteristics of a planned economy, and one of its most important instruments.

(c) The area of the relations in between the national economy and the world market is of central importance. Ever stronger social division of labour brings the ever closer linking of the individual national economy with the world market and the economies of other countries. Understandably, in considering the planned development of an individual national economy, regard must also be paid to the role of those factors which affect the relationship of that economy with foreign countries (the volume and structure of trade, credits and the growth of capital, the relations between prices and costs, etc.).

While the 'basic proportions of development' on which planning was concentrated were thus essentially only three, their influence covered 'the most important elements which determine the growth of the economy'. As Jelić (1962, pp.147-150) elaborates, the first proportion, the distribution of national product among investment, personal and collective consumption, influenced the level of each of these, the size of the market for capital, intermediate and consumer goods and raw materials, the standard of living, and, (with purchasing power) the level of prices; the structure of investment influenced future capacity, the level of and structure of output and employment, and the requirements for labour and skills, while external economic relations affected the volume and pattern of trade and financial movements.

1. These three proportions were not the first variants to be adopted. Kidrić (1951) outlined the original proportions as the minimum rate of utilisation of capacity, the level of investment, and the 'rate of accumulation' charged on enterprise revenue; these proportions were applied, as the planning instruments, only in 1952 and 1953.
The text of any of the plans enacted during the period contained many more details and targets than were comprised by the local proportions. The Plan for 1961-65, for example, after a brief and non-quantitative discussion of the development objectives for the Plan period, begins from the growth of social product and national income, giving target levels for the end-year and the equivalent annual growth rates, in total and for the seven major sectors of the industrial classification (Chap.II, section 1). Only then is the first of the basic proportions given, the distribution of social product among productive investment, personal consumption, expenditure for the 'social standard' (collective consumption together with non-productive investment), defence and the net balance of payments position (Chap.II, section 2). The second follows immediately, with target end-year levels and annual growth rates for investment, in total and divided among productive and non-productive activities, fixed and working capital, and the major sectors; these are supplemented by reference, in the text, to individual branches or products, within the major sectors, which are to receive special investment efforts (Chap.III). Further chapters cover the major aspects of individual and collective consumption (Chap.IV), foreign trade (Chap.VII), regional development (Chap.VIII) and employment and productivity (Chap.IX).

Only the goals for the basic proportions, however, were targets in strict sense of the planners having the means to implement them; the others served only as forecasts, of an illustrative character. As Jelić (1962, pp.151-152) says

'For a range of these categories (the macro-economic indicators which give an almost complete picture of economic growth) the

1. Two medium-term plans were enacted, for 1957-60 and 1961-65, and an annual plan for each year.
2. Details of the classification are given in Appendix 1.
plan gives only a forecast and prediction, a general turn of aspiration. A large part of the indicators in the plan show only the general objectives of economic policy, or are of a documentary character, and serve as a demonstration of the consistency and realism of the basic proportions.

The essential core of the plan, however, lies in these basic proportions, and on their successful establishment and realisation depends the consistency and efficiency of this system of planning.

Planning and the Market

This restriction of planning to the 'basic proportions' as the strategic parameters for development, defined a corresponding sphere for the market:

'The role of the market is, in the first instance, as the criterion of the efficiency of the activity of economic organisations, and, simultaneously, as the instrument by means of which production is orientated, within the framework of planned regulation, towards satisfying the interests and demands of consumers'.

(Sirothović (1961, p.72))

'The market gives economic organisations figures on the total and structure of demand, and they, with the objective of maximising their income or net revenue, in theory orientate their current production towards those products for which demand exceeds supply, where higher market prices allow a higher rate of profit. In this way, it is possible, in principle, for supply and demand to be flexibly and directly brought into adjustment, without the intervention of a centralised directive plan'.

(Ivanić (1962, p.591))

This division between the spheres of planning, in respect of development, and of the market, in respect of current production, was justified in terms of the efficiency of each for a purpose. Planning for the ex ante coordination of decisions, the market for ex post allocation and adjustment:

'In the short-run, ... the capacity of producing units is given. If that is so, there is no need for a central planning agency to interfere in their business... In the short run let's have the market as the planning mechanism, because it is the most efficient, given these conditions...

... In the long-run capacity changes, and you have in some way to make sure that these capacity changes will be synchronised both in time and structurally, and that you have the right
amount of investment. This is a task which cannot be done by a market economy'.

(Horvat (1964a, p.150)).

'As one of the methods for delimiting centralised and decentralised decisions, we can use the differences in the character of the problem, in the case of simple and extended reproduction. It is assumed that the factors which regulate simple reproduction are already given, determined by existing productive capacity, etc. To the extent that these factors, which affect the course of simple reproduction, are mutually coordinated, the whole process could be carried out by decentralised decisions, and could take place, more or less, without intervention, through the operation of normal economic stimuli and the influences which derive from the market, without the necessity for specific intervention through centralised decisions. The sphere of extended reproduction, by contrast, demands special social regulation of the future proportions in economic growth. The criteria and guidelines for this either cannot be found in the existing incentives and relationships in the market, or else the guidelines which emerge from the market are a reflection of the existing situation and inappropriate for the determination of genuine future requirements, or for including social criteria of rationality, which may differ from the criteria on which individual decisions are based'.

(Jelić (1962, p.214)).

Sirotković (1953, pp.222-223), however, points out two ways in which the market influences the plan proportions:

'Within individual sectors of economic activity, the market serves as an indicator and corrective in the planned management of investment...

... then the direct producers are deciding on (the type and quality of production) and on the utilisation of the investment resources available to them for this, an important role is played by knowledge of the volume and distribution of the relevant purchasing power, and of changes in the pattern of demand in the course of the expansion of output and incomes. In this way the market provides information, as an indicator for the use of one part of investment resources, linked to the management of production in accordance with expenditure requirements...

The role of the market as a corrective in the planned management of investment is connected with the fact that the influence of planned investment on the growth of production and on the currency balance is effected through the market. Then a market mechanism is in operation, imbalances in the planned proportions find expression in the market in shortages of goods, or increases or falls in prices, with the result that the market directly, through price movements, corrects the plan relationships or reveals the areas where suitable proportions were not established in the plan...

The operation of the market in this way brings a continual improvement in planning'.

The search for the appropriate balance between the decentralisation of decision-making and the planning of development thus involves, essentially, the respective roles of the enterprise, on the one hand, as the organiser of production, and on the other, of the investment system, as the principal means of implementing planned development.
(iii) The Position of the Enterprise

Legal Status

The legal status of the enterprise was brought into conformity with the decentralised system by a series of measures enacted at the end of 1953.

The right to found an enterprise, previously vested solely in the state organs, was conferred on the political units at each level, acting individually or jointly, or any existing enterprise or group of enterprises, or even on a group of individuals, should they so wish. However, in accordance with the principle that each enterprise was to be managed by its employees, the body which had taken the initiative in organising the new enterprise was required, as soon as the enterprise was duly constituted, to hand over full control of its management to the workers' collective.

The enterprise was given the right of use, including purchase and sale, of capital assets, but for this use of social property an interest charge ('tax on capital assets') was levied, representing the minimum rate of return on their use which was socially acceptable, and the enterprise was further obliged to provide for their depreciation.

The re-introduction of the profit-motive was formalised by the definition of the various costs which constituted claims on enterprise revenue, and of the rights of the enterprise to distribute the subsequent surplus between wage supplements and its funds for re-investment and social facilities. As the converse of their right to share in profits, the workers were made financially liable for losses. In principle, a deficit which was believed to be temporary was met from enterprise reserves and assistance, later repayable, from the commune; if the
enterprise offered no adequate prospect of longer-term viability, it was to be put into liquidation. In this event, wages were accepted only as the last claim against enterprise resources, although a minimum was always guaranteed. The workers in this way formally took over the 'risk-bearing' functions of the share-holder under capitalism, with their pecuniary rewards and liabilities.

The legal position of the enterprise was, therefore, not very different from that of the firm under private enterprise. An entrepreneurial type of decision was necessary for its establishment; it was then expected to make profits and given the right to retain part of them; if it incurred losses, it was threatened with liquidation. It had the right to decide the volume, assortment and quality of its output, including the right to diversify into other lines of production, to purchase equipment and materials, employ and dismiss labour, and sell its output on the market. Capital goods had to be purchased, their depreciation covered, and interest paid. 1

These, however, constituted only the formal attributes of the enterprise.
position of the enterprise: its position in practice was strongly influenced by the incentives and constraints of the entire economic system.

The Primary Distribution of Enterprise Revenue

The centerpiece of the incentive system which replaced the command economy was profit, with the right of the enterprise to dispose of a surplus and (marginally) the threat of liquidation from a deficit. The primary distribution of enterprise revenue, between the enterprise itself and the state, which largely determined the volume of resources available for secondary distribution within the enterprise, was of crucial importance in this. As the committee of experts observed, (Laković-Tučár et al. 1963, pp. 237-238):

'The individual efficiency of the enterprise depends, to a decisive extent, on the distribution of its realised income...

In the distribution of enterprise revenue it is essential to ensure not only a positive stimulus to its efficiency, that is, the growth of net revenue along with an increase in efficiency, but also a negative stimulus, that is, a decline in efficiency below the level determined as socially acceptable endangers the existence of the enterprise and the wages of the workers'.

The taxation provisions governing the primary distribution of enterprise revenue were often extremely complex, and subjected to numerous alterations in the course of the twelve years, the dominant tendency of which was towards the progressive strengthening of the profit-incentive from an extremely weak initial role.

In 1953 the interim system of distribution through 'the rate of accumulation and funds' was still in force. The net receipts of the enterprise were taxed at a rate fixed for it individually, according to its market opportunities, capital equipment, degree of monopoly and similar criteria. 1. These rates, set as a proportion of the wages fund,

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1. When the 'rate of accumulation and funds' was introduced in 1952 the rates were fixed by industry group, but this resulted in such wide disparities between individual enterprises in the level of retained profits that in 1953 the rate was fixed for each enterprise individually.
were so high that they in effect absorbed the entire profit of the enterprise. 1.

Following the changes in the position of the enterprise introduced at end of 1953, the system of 'profit' was applied between 1954 and 1957. Profit was calculated after all costs had been met, including the 'wages fund', comprising basic wages intended to cover the necessities of life; it was then subject to complicated taxation provisions, a federal tax of 50 per cent, and variable taxes levied by the Republic and commune, in addition to the federation, in an effort to equalise the position of enterprises between sectors and regions. Net profit then became 'the fund for free disposal' by the enterprise. 2. But the high level of taxation reduced profit, initially a large proportion of net revenue, to only a small residual, for allocation to the fund for free disposal.

Widespread criticism was voiced of the failure of this system to fulfill its incentive function. Duler (1957, p.291), for example, observed in 1957 that

'The principal deficiencies of the present system of income distribution are
1. The workers' collective has almost no influence on the distribution of realised income, which is determined, both quantitatively and qualitatively, by factors outside the enterprise, and by instruments which are decided uniformly from the centre...
2. The present system of distribution does not guarantee the normal organic growth of the enterprise... It does not allow simple reproduction and makes it quite impossible for the enterprise to establish funds for extended reproduction out of realised income...
3. Society takes such a large part of total income that the impression is current within the workers' collective that, in principle, everything is taken away, and only the minimum necessary for life is left, without regard to the productivity and profitability achieved.
4. The system of distribution is very complicated and changes every year. As a result of this, direct producers do not, in

1. Illustrations of the rates charged are given in Bičanić (1978, pp.581-592).
2. The detailed provisions are described in Bičanić (1957).
general, understand it, and that reduces their 'interest in workers' self-management'.

With effect from 1953, therefore, 'profit' was replaced by the concept of 'enterprise revenue': from total receipts appropriate deductions were to be made, in regulated sequence, for material costs (including interest on loans outstanding), depreciation, the tax on fixed and working capital (except where loans for these were still outstanding and interest was being paid as a material cost) and turnover tax. 1. The remainder, without provision for the remuneration of labour, constituted 'revenue' of the enterprise.

In the years 1953-60 revenue was taxed on its excess over basic wages. 2. The rates of taxation were steeply progressive, starting at 25 per cent, when revenue amounted to 120 per cent of basic wages, and rising to 70 per cent at over 200 per cent of basic wages. The resulting 'net revenue', considerably larger than the old 'profit', was then available for enterprise disposal.

But the high level and progressive nature of the tax still failed to afford an adequate stimulus to the enterprise:

'Linking the tax contribution from enterprise revenue exclusively to the relation between enterprise revenue and basic wages, with a progressive tax up to 200 per cent and proportional beyond that, does not provide a satisfactory stimulus to efficient production and, particularly, to labour productivity'.

(Gorupić (1960, p.716)).

'The results of enterprise activities were equalised, which allowed the existence of very inefficient enterprises and acted as a disincentive to greater efficiency or the part of efficient enterprises'.

(Tančević-Lučar et al. (1963, p.230)).

1. These various categories are described in Appendix 1.
2. Basic wages were an accounting concept only, for determining the tax liability of the enterprise. The government set the rate for each year by industry-group (and briefly also by level of skill). The total basic wages of an enterprise were then calculated by the application of the relevant rate to the total labour-force, irrespective of actual wages paid. The government usually fixed the basic rates as a proportion (often 80 per cent) of average earnings in the industry-group in the previous year.
From 1961, therefore, taxation was applied directly to revenue, irrespective of basic wages (and still before any allowance for the remuneration of labour). The tax was made proportional, and supplemented by a tax on 'surplus revenue', on net revenue less the average wages paid in the previous year. The ending of progressive taxation was intended to increase the incentive to revenue-maximisation by the enterprise, while the tax on surplus revenue effected some equalisation in the volume of retained revenue. The rates of taxation were reduced, to 15 and 25 per cent respectively, to bring a substantial increase in the proportion of total revenue left at the disposal of the enterprise.

It is not possible, from published Yugoslav sources, to follow the trend in the volume of resources left at the disposal of the enterprise after the primary distribution, but there is general agreement among commentators that the proportion left to the allocation of the workers' council increased progressively throughout the period, as was the intention of the authorities. According to Waterston (1962, p.65):

'At first (1954) the proportion of enterprise earnings which the authorities permitted the workers' councils to distribute was small. It was gradually increased until, in 1960, it averaged about 20 per cent of the total income of enterprises. Beginning in 1961 the proportion left at the disposal of the workers' council was almost trebled to average 55 per cent of total enterprise earnings'.

1. Only to the extent that this exceeded 6 per cent of the value of the total assets of the enterprise. The details and impact of the changes are described in Gorupić (1962).

2. Organisation for Economic Cooperation and Development (1966, p.11) quoting the 'Yugoslav authorities' shows that, in the years 1961-64 the share of the enterprise in the distribution of net product between itself and the governmental units lay between 45 and 51 per cent. When adjusted, this is approximately consistent with, or slightly lower than the figure of 55 per cent given by Waterston: the OECD figure gives only resources retained within the enterprise, while between 20 and 30 per cent of its allocation to its own funds had to be contributed to the Investment funds of the Republic and commune; since the allocation to funds took, on average, one-third of the resources allocated by the enterprise, the OECD figure, quoted on the same basis as Waterston's, would be perhaps 5 per cent higher.
Between 1953 and 1960, therefore, the profit incentive which followed decentralisation and restoration of the market, was designed as the principal stimulus to enterprise efficiency and initiative in the organisation of production, was severely hampered by the high levels of taxation which channelled a very large part of profits to the state. Only after the taxation changes of 1961 had substantially increased the portion of revenue which was retained by the enterprise was the profit incentive given significant scope.

Liquidation

The negative side of the profit incentive was the threat of liquidation and non-payment of wages. In principle, this bore harshly on the workers, in that, as managers of social property, they were made financially liable for the results, although the original entrepreneurial decision to set up the enterprise had been taken by an outside body. 1. But in practice liquidations were extremely rare, and confined to small enterprises.

The more common alternative was a public subsidy, from the commune in the first instance, and from the Republic or federation if the amounts involved exceeded the resources of the commune. Subsidies of this sort were known to be fairly frequent; the committee of experts (Dabčević-Kčor et al. (1963, p.271 footnote)), for example, refer to 'the insolvent economic organisations... which now present a complex political, economic and social problem'. On this sensitive matter, however, figures are systematically concealed. 2.

1. Large enterprises were established on the initiative of the federation and for Republics, most smaller enterprises by the communes.
2. The question of subsidies to enterprises has received greater publicity and frankness of discussion since the reforms of 1955. Kragler, the Vice-President of the Federal Economic Executive Council, in a highly critical speech in August of that year, reported that 'the sum of subsidies the raw material and power generating/over
An alternative to subsidisation was 'reorganisation'. If an outside body, normally the commune, was prepared to accept financial responsibility, it had the right to suspend the workers' management, for up to one year, and install a director of its own appointment to organise re-equipment, the pruning of activities, administrative re-organisation and similar changes. Particularly in the later 1950's the communes tended to favour re-organisation by merger, to conceal losses in a joint account with a profitable enterprise. This practice was later curbed, but not eliminated, by a body of case-law which built up, protecting profitable enterprises against coercion of this sort.

Thus not only was the profit-incentive severely blunted, on its positive side, by state intervention through taxation, but on its negative side, the threat of liquidation was virtually removed by adoption of various exedients.

The Remuneration of Labour

The profit incentive to the enterprise as a whole, was, in principle, extended, by the system of secondary distribution of net revenue between personal incomes and enterprise funds, and the tertiary distribution of the allocation for personal incomes among the workers individually, to link the remuneration of each employee to the financial results of the enterprise. The dependence of wages on enterprise results was progressively strengthened during the period.

1. The commune held various instruments of 'persuasion' vis-à-vis the enterprise. The enterprise commonly required the guarantee of the commune for funds borrowed outside. The commune was responsible for enforcing the many complex regulations governing the detail of enterprise activities and, by rigorous interpretation of these, could not infrequently make the enterprise liable for penalties.
In 1953, wages derived almost entirely from the 'wages fund', which was treated as a cost of production: supplements from profits were of little importance. Under the system of 'profit' in the years 1954-57, the 'wages fund' continued, with wage rates set by the government in 1954 and by the enterprise, in consultation with the commune, in 1955-57. Supplements from profit became of increasing importance; the proportion of profit which could be allocated to this was closely regulated, but allowed, according to the estimates given by Bičanić (1963, p.524) to rise from 4.3 per cent in 1954 to 9.2 per cent in 1957, equivalent in general to an extra month's wages or more in the year.

From 1953, when wages were abolished as a cost of production, and the enterprise was, for the most part, left free to allocate its net revenue between incomes and funds, workers' earnings were much more closely linked with enterprise results. Between 1953 and 1960 the global sum available for personal incomes consisted of 'basic wages', as determined by the government's basic rates, plus whatever proportion of net revenue (conceivably, with only minor reservations, its total amount) was allocated by the workers' council. The wage rate at which the enterprise engaged labour was (like the basic rate) merely a unit of account, fixing the relative size of each individual's income within the enterprise, and thus his share in the global allocation. The remuneration of a worker therefore depended on the size of the global allocation for personal incomes, of which approximately one-quarter derived from net revenue, and his share in it, as determined by his relative wage rate: only by accident would he receive the basic wage or his own wage rate.

1. A tendency noted at the time was for workers to be recruited at the lower end of the skill range. Their basic wage, a tax extraction to the enterprise, was the average for the group, while the wage they were actually paid could be kept lower, thus increasing the resources available to the enterprise for other purposes.
From 1961, when basic wages ceased to feature in the calculation of enterprise tax liabilities, global personal incomes derived directly, by decision of the workers' council, from net revenue. 1. For the allocation among individual workers, a points system became increasingly popular in place of contractual wage rates. Each post within the enterprise was awarded a number of points under various heads, such as the level of education, skill and experience required, authority, responsibility, physical and mental effort and working conditions, 2. the total of these points determining the holder's share in the allocation. Various systems of 'complex remuneration' were also devised, linking the individual's share to the productivity either of the enterprise as a whole or of the group in which he worked. 3. Monthly payments were made on the basis of provisional estimates of enterprise revenue, and subject to later adjustment.

The principle of the dependence of the worker's earnings on the financial results of the enterprise was, however, modified by two guarantees. If the enterprise was failing to earn a surplus, any shortfall on the total of basic (or 'guaranteed') wages 4. could be borrowed from the commune, and the total then distributed in accordance with the enterprise's own points or other allocative system. In addition, a national minimum wage was set by the federal government, applicable in all regions, sectors and occupations; this set a floor to the amount

1. Initially in 1962, and in revised form in 1963, certain norms were established restricting the rate at which the workers' council could increase personal incomes, by linking it to various indices of enterprise performance.
2. A detailed example of a points system is given by Bicanic (1963, p.5). 7
3. A number of variants of this are described in International Labour Office (1962, pp.212-230).
4. These continued to be set after 1961, although they no longer served for tax assessment; they were, however, reduced from 30 per cent of average earnings in the previous year, to 60 per cent.
the worker could receive in the enterprise allocation, and also served as a guaranteed minimum, chargeable on commune funds, in the event of enterprise liquidation. 1.

The personal earnings incentive was thus blunted, between 1953 and 1960, in the same way as the profit incentive, by the small volume of resources left to the enterprise, further restricted between 1954 and 1957, by the regulation of the share of profit which could be allocated to personal incomes. The complexity of the system of wage-determination was also a source of continual criticism. For the period until 1960 Gorunić (1960, p.220) was led to conclude that 'the material interest of the producers in development and in advancing production has been, to an important extent, limited and restricted by the current system of remuneration'. But the changes introduced in 1961 went sufficiently far towards rectifying these deficiencies for these lines of criticism to have virtually disappeared by 1963. Their place was, however, taken by criticism of the reverse facet of the incentive system, the inequalities in personal incomes to which it gave rise, particularly as a result of the unequal market positions of individual enterprises. As Miliowski (1963a) pointed out, the system of labour remuneration remained far from implementing the principle of 'to each according to his work'.

**Price Formation**

From 1952 the enterprise was made responsible for setting the price of its output, in order to give it a meaningful opportunity to pursue revenue-maximisation. Its rights in this were, however, severely impaired by extensive government intervention, which tended, in spite

1. This minimum was kept at a very low level: in 1964 it was 15,000 dinars per month, less than one-third of the average earning of an industrial worker.
of the extension of decentralisation in other areas, to increase rather than decrease during the period. The majority of price controls were introduced with the objective of stabilising the market, particularly for products in short supply. The chief categories of controlled prices were the following: 1.

a) The government itself fixed a small number of prices: electricity, rail and post-office tariffs, the prices of tobacco products and sugar.

b) Guaranteed minimum prices were offered for the stable agricultural products: wheat, corn, good-quality livestock, wine, certain vegetables. Market prices were often above these minima.

c) 'Agreed prices' were established, under governmentegis, between industry and agriculture in the case of agricultural products for industrial processing: cotton, oil seeds, sugar beet, fruit and vegetables.

d) 'Ceiling prices' were set for the more important raw materials and semi-manufactures: metal ores (iron, copper, lead), coal, pig-iron, steel, certain chemicals. The ceiling prices tended to be, more or less, continuously in force, constituting, in effect, government price-fixing.

e) Retail trade mark-ups were often regulated.

f) A wide range of manufactures were subject to 'review prices'. The enterprise was required to notify any intended price change to the authorities, who had the right to investigate and prevent any increase which they regarded as unjustified; but unless the authorities took action, the price change was automatically approved after one month.

1. Greater detail is given in Jova ović (1964), and a full review of the price system in Javez Ekonomista Jugoslavije (1964).
The majority of increases passed without intervention, but the deterrent effect of the review extended its influence considerably beyond the number of cases checked.

The authorities thus intervened extensively in price-fixing, mainly to set prices below the level which a free market would have established; in addition to the regulation of the principal agricultural and service prices, it was estimated by the committee of experts (Tabčević-Kućar et al. (1963, p.195)) that in 1961 two-thirds of industrial output, and three-quarters of the more important raw materials and semi-manufactures, were subject to either ceiling or review prices.

The Market and Resource Allocation

Price policy is included by Jelić (1962, pp.175-179) as one of the instruments of a planned economy, necessary for rectifying the 'temporary dynamic imbalances in individual sectors' liable to occur during rapid development, as well as the familiar 'market imperfections'. Both justifications were highly relevant to Yugoslav circumstances, but the correctives applied stabilised the market only at considerable sacrifice of the allocative efficiency of scarcity prices. As early as 1953 Pilić (1958, p.241) complained that the low level of transport tariffs was giving rise to 'unnecessary transportation on the railways, while they struggled with the maintenance of their already obsolete capacity', and in 1963 the committee of experts (Tabčević-Kućar et al. (1963, p.107)) concluded that

'There remained very little scope for the free operation of market laws, because of the imperfections of the market and the extensive administrative intervention in the formation and control of prices. The stimulative and regulative role of the market was, to some extent, realised in products for personal consumption, while, in the case of materials for processing and investment equipment, it was very limited.'
It was, however, on the dynamic efficiency of resource allocation that price controls had their strongest adverse effect. While, according to the Yugoslav division of functions between the market and the plan, 'extended reproduction' belonged to the sphere of planning, Jelić (1962, p.179) recognises the role of prices in guiding the growth of production:

'An active price policy must take into account the complex influence of prices in the process of economic development. In a system of planning, with the operation of a market, price relations are not only the result of supply and demand; for their own part, they influence the formation of future supply and demand, and the criteria and judgement of producers and consumers in their behaviour on the market'.

But many of the controlled prices were set at such a low level that enterprises in the branches concerned could not earn an adequate profit, and thus lacked both the incentive and the means to increase their output. It was no accident that the sectors of strictest price control (transport and electricity, industrial raw materials and semi-manufactures) also constituted continuing bottlenecks in supply. Horvat (1963, p.11), summarising the companion report of a second committee of experts, on the growth of the Yugoslav economy in 1961 and 1962, noted that

'In an economy which is industrialising rapidly, the consumption of materials for reproduction grows much more rapidly than total consumption. To the extent that this problem is not recognised and effective measures taken for its solution, a major deficit will emerge. This is what has happened; industrial production of materials for reproduction has expanded more slowly than the consumption of them. This deficit has increased rapidly in recent years'.

A striking instance of this, in the case of copper, one of Yugoslavia's most important raw materials, is given by Jelić (1965, p.141):

'A project providing for an increase in copper production was drawn up and submitted for consideration in Bor, Serbin, one of
the largest copper ore mines in Europe, four years ago (1961).

There is high demand for copper abroad and it is certain to continue for quite a time. Yugoslavia also does not have sufficient quantities of this article. One capital investments in copper would have been safe because its productivity of labour is above the world average.

Nonetheless, the project was turned down by both the Workers' Council and the Bank. Calculations indicated that, under conditions prevailing at the time, new capital investments would have been unprofitable. The enterprise could not dispose of its product at will (because of the exceptional importance and shortages of copper), but had to sell almost all of it to domestic industry at unrealistically low prices. As a result of these low prices, investments in the expansion of copper production simply did not pay.

The influence of the government on price formation was intended, according to Jelić (1962, p.177) to be exercised predominantly through 'the elements which enter into the structure of costs and prices', and 'only exceptionally' through direct influence on prices. The extent and severity of the price controls actually operated in Yugoslavia, however, reduced these other instruments to the subsidiary role of offsetting, through a reduction in costs, part of the adverse effect of low prices on the rate of profit in individual sectors. The tax on capital assets, nominally 6 per cent, was reduced to 4 per cent on coal and ore mines and steel mills, to 2 per cent on transport equipment and installations, and one per cent on electricity capacity; raw materials and semi-manufactures were almost totally exempt from turnover tax, which was levied at rates between 5 and 25 per cent, but sometimes up to 60 per cent, on other products. These concessions were, however, insufficient to offset the distorting effects of price controls on the level of profits among individual sectors, and in particular to alleviate the low rate of profit in many of the 'basic' industries.
Decentralisation and the Underdeveloped Regions

These numerous restrictions on the enterprise in the formation and distribution of its revenue, which made its position in practice very different from that of the firm under private enterprise, presented many problems for the efficient operation of the economic system. But from the point of view of the underdeveloped regions the many retreats from the principle of decentralisation were, in general, advantageous.

Decentralisation posed the threat to the underdeveloped regions that their enterprises, with their inferiority in technology and economic environment, would be unable to compete effectively with those from the more developed regions. The principle of profitability was not, however, rigorously applied. The subsidies paid, throughout the country, to avoid the liquidation of unprofitable enterprises almost certainly provided particular support in the underdeveloped regions. The steeply progressive taxes levied between 1953 and 1960, to equalise the position of individual enterprises, were greatly to the advantage of the less profitable, including many in the underdeveloped regions. In addition to this advantage from the general structure of profits taxation, individual enterprises in difficulties, or in particular sectors which the government wished to promote, were granted preferential tax rates, or even full exemption. Particularly after the introduction of flat-rate taxation in 1961, the special cases and individual exemptions became so numerous that Ekonomiska Politika, the leading economic weekly, referred to 'a system of exceptions'.

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both heads.

price policy, although designed on a sectoral basis, inevitably had a regional impact. Low transport charges alleviated the locational disadvantage of the underdeveloped regions of their distance from a large part of the national market, but simultaneously weakened the natural protection of their local market. The low prices for individual products affected both the level of regional output and the opportunity for financing expansion from profits. Miljovski (1953, p.264), no doubt with his native Macedonia in mind, talks of the 'lost income' from agriculture, particularly from wheat and tobacco, while Nikolić (1963) points out the low rate of accumulation in Vojvodina, resulting from the low prices received for agricultural and food products. BosniaHercegovina, with its heavy dependence on the coal, iron and steel, and electricity industries probably suffered most severely of all from the undervaluation of its output and the depression of the rate of profit; Čečez (1964, p.603) estimates that in 1963 no less than 55 per cent of the industrial output of Bosnia-Hercegovina was subject to ceiling prices, a proportion more than twice as high as in any other Republic.

The determination of personal incomes within the enterprise allowed wages to remain low where productivity or enterprise earnings were low. Enterprises in the underdeveloped regions were thus relieved of any obligation, which might well have been beyond their resources, of paying national wage rates.

Thus, although the many forms of intervention used to prevent the full working-out of the principle of decentralisation often had adverse effects on the efficiency of resource-allocation from the point of view of the economy as a whole, their effects on enterprises in the underdeveloped regions were, for the most part, favourable.
(iv) The Investment System

The investment system was the key element in the operation of the Yugoslav planned economy: in order to implement the first two of the global proportions, the authorities had to retain control over the level and sectoral pattern of investment. For this reason, decentralisation came later than in other spheres of economic activity, and was more closely limited. Unlike the decentralisation of production, the decentralisation of investment took the form, in the earlier years, mainly of a reallocation of functions among governmental agencies, and only at the very end of the period were significant decision-taking powers extended to the enterprises and to independent banks.

The Level of Investment

The decentralised system of investment financing, which first came into operation in 1954, 1. separated 'productive' from 'non-productive' investment, only the latter continuing to be financed from state budgets. As the source of funds for productive investment, Social Investment Funds (SIF's) were set up at each governmental level; for the first few years they were administered by the National Bank, and subsequently by the Investment Bank, established for the purpose in 1956.

The volume of resources to become available in the SIF's was specified in the Plans, and implemented through taxation. The entire revenue yielded by the tax on capital assets was allocated to the SIF's, supplemented, as necessary, from the proceeds of other taxes. In later years, interest and repayments became a further significant, and exactly predictable, source of revenue. Thus the volume of resources accumulated

1. Investment in 1953 was regulated by a Temporary Law on Investment Financing.
in the SIP's, the largest source of investment funds until 1953-54 (Table 2-1), was closely and precisely regulated.

This transfer of investment funds from state budgets to the SIP's was regarded as a decentralising move, but more genuine devolution, to the level of the enterprise, was strictly limited. Although the funds held by the enterprise were a major source of investment finance, the authorities, by various devices, retained extensive control over their level. The enterprise derived its investible funds from amortisation and retained profits. The provision of depreciation was regulated in detail throughout the period, 1 and only from 1962 was the enterprise given the right to dispose freely of its accumulated amortisation funds. 2 The distribution of enterprise profits, and, therefore, the size of the allocation to funds, were regulated, between 1954 and 1957, in the Federal and Republican plans. After 1953 the enterprise was formally free to determine the allocation to funds from net revenue, but in the years 1953-60 the volume of net revenue was kept low by progressive taxation, and an indirect check imposed by heavy taxation of excess allocations to personal incomes. 3 Then free disposal by the workers' council of the greater volume of resources left at the disposal of the enterprise, after the taxation changes of 1961, began to undermine the authorities' control of the level of investment, the allocation to funds was protected by the introduction of a series of norms, linking the growth of personal incomes.

1. This is described in Appendix 1.
2. A critical appraisal of the impact of this liberalisation is given by Jovan Marković (1962).
3. A global allocation to personal incomes, in excess of 150 per cent of basic wages, was subject to a federal tax of 25 per cent and additional taxation by the commune.
## TABLE 2-1

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Investment from each source is shown as a percentage of total gross investment in that year.
to improvements in enterprise performance. The authorities thus, through provisions affecting both the minimum and maximum allocation to funds, retained fairly close control, throughout the period, of the volume of investible funds held by the enterprise.

An important development in the decentralisation of investment decisions was introduced, as part of the reforms of 1961, when the banking system was, for the first time, instituted as a major source of investment finance. While the Investment Bank was, in spite of its name, essentially a 'fund', deriving its resources from taxation, the new institutions were banks in the stricter sense, creating credit by accepting deposits, from enterprises and individuals, and lending for investment purposes. The new banks were decentralised in both the territorial and functional senses; the commune was the basis of their organisation, national networks being prohibited; they were autonomous, profit-making organisations, and, while they were expected to conform to the investment targets expressed in the Plans, no specific Plan instructions applied to them, as to the SIP's: the only weapon available to the central planners for controlling the volume of bank lending was the familiar credit-policy instrument of compulsory deposits, which could be frozen by the National Bank. The profound implications of this development for control of the level of investment were, however, only emerging in the last years of the period, as the time-lag involved while the banks were brought into operation delayed their impact on investment.

1. As this provision was revised in 1963, the enterprise could choose its guideline for the growth of personal incomes from five sets of norms, involving the change in net product per worker, the level of revenue and accumulation per worker, capacity utilisation and the productivity of capital, gross output per worker, and gross sales relative to total costs.

2. And the parallel, but much less important Banks for Agriculture and Foreign Trade.
financing until 1963-64.

The more genuine decentralisation of the investment system, represented by the establishment of the new banks and the liberalisation of enterprise investment, was thus implemented to only a very limited extent, in the years under discussion. For the rest, while the degree of centralisation and directness of control were reduced, by comparison with the years of investment financing from the budgets, the authorities still maintained close control over the volume of productive investment.

The Sectoral Allocation of Investment

The allocation of investment funds by sector, implementing the second global proportion, was determined in the planning process, and was formally separate from, and prior to, the choice of project. The Plans normally stipulated targets for the seven major sectors, supplemented by indications of individual branches or even products where investment was to be particularly promoted; the more detailed allocation was worked out between the planners and the managers of the SIP's.

The planning decisions were designed as a process of macro-allocation, on the basis of Plan objectives, demand projections and the expected availability of resources for the Plan period, and before specific projects were presented and their profitability appraised. But, inevitably, individual projects had to be kept in mind when certain branch allocations, particularly for heavy industry, were planned, and the managers of the SIP's were closely in touch with the position of many individual branches and projects.

1. Many of the planning techniques applied are described in Sirothović (1961).
Project Selection

Although the SIF's remained government organs, responsible for the implementation of Plan decisions on the sectoral allocation of investment, their establishment introduced an important measure of decentralisation into investment decision-making. The essential feature of the re-organisation of 1954, and the one which characterised the remainder of the period, was the withdrawal of state organs from the actual planning of all but a few projects, and their restriction to the allocation of investment finance among projects submitted to them; while the control of funds remained centralised, the initiative in conceiving and designing projects was decentralised to the enterprises and lower political units.

The Auction System

When the SIF's were established, the auction system was introduced, with the intention that it should be the principal method of allocating investment credits, particularly from the Federal General Investment Fund (GIF). For several years it played an important, but by no means dominant role, in project selection.

Official Yugoslav sources do not give figures on the volume of resources allocated through the auction, but Blažojević (1961, p.690, footnote 11), who was at that time on the staff of the Investment Bank, quotes that in 1959 the auction allocated around 56 per cent of the loans approved from the GIF (equivalent to some 22 per cent of total gross investment). The very tentative estimates presented by Neuberger (1957) and (1959) for the years 1954-55 show the auction allocating a minimum of 21-24 per cent of GIF funds, and a maximum of 40 per cent in

1. Formal auctions were little used at lower political levels. Yugoslav discussions of the auction system, for example by Blažojević (1961) and Gorupić (1962b) refer only to the GIF.
1955 (the year of his most reliable figures) and of 30 per cent in 1954 and 1956; these were equivalent to a minimum of 5.8 per cent of total gross investment, and a maximum of 22.2 per cent, closer, he believed, to the minimum than to the maximum figure. As a general order of magnitude, therefore, the auction system probably allocated around one-half of GIF funds, representing less than one-quarter of total gross investment.

The auction procedure is described by Dragoljević (1961, p. 300):

In the case of loans from the resources of the GIF, the business banks (the Yugoslav Investment Bank, the Yugoslav Agricultural Bank and the Yugoslav Bank for Foreign Trade) announce a public competition for investment credits for specified purposes, in accordance with the investment policy set out in the Five-Year or current Social Plan. In the auction the destinations for investment are more closely defined, and the conditions set out under which loans will be granted (the duration of the loan, the interest rate, the extent of participation etc.), along with the criteria on which the choice of approved applications will be made by the Bank. The preparation within the Banks for the auction is carried out on the basis of comprehensive studies, previously supplied, on the market, productive capacity, the raw material base, technological considerations, economic indicators of profitability, the effects of these investments and other specifications or types of activity. In this way it is intended that the conditions and criteria in the auction be accommodated to the individual characteristics of the investment in question, and that the necessary conditions for rational and efficient investment be already formulated in advance.

When the Bank accepts the application of an investor, it makes a contract with him for the repayment of the loan, setting out all mutual obligations and the economic sanctions (the period of the loan, penalties etc.). Investors are obliged to participate with a share from their own resources in the financing of investment, and the Bank can also require a guarantee for the loan from the commune or Republic on whose territory the investor is located. The investor, or his guarantor, is required to cover, from his own resources, the excess of the cost of the investment over the estimated amount established with the Bank when the loan was approved. These, and other measures, introduce necessary elements of material responsibility into the use of resources, and ensure the direct interest of the investor and his guarantor in the selection of rational investments, with a favourable period of activation and the best possible results on exploitation.

1. The announcements were made in Službeni list, the Official Gazette.
The type of project included in the auction system was gradually extended. In the early years, the principal areas covered were the food-processing industries, agricultural equipment, construction materials and public transport vehicles, but in later years funds were also offered for electricity generation, chemicals and some engineering products. The 'basic industries' were largely excluded.

Originally, the criteria for project selection, announced with the auction, were normally only two, the interest rate offered and the period of the loan. After the preliminary elimination of projects which were unacceptable in concept or elaboration, acceptable projects were ranked according to the interest rate offered, and accepted in sequence until the available funds had been taken up; all then received their credits at the interest rate offered by the marginal project.

The auction system was criticised in a number of respects for its clumsiness in operation. The detailed documentation to accompany any application required time and, often, expert help from outside, to prepare, yet, according to Gorunić (1962b, p.791), the time allowed for lodging applications could be as short as fifteen days which often resulted in hasty planning. In spite of this initial haste, the processing of the applications was frequently a protracted affair, and cases occurred of between two and three years elapsing between the announcements of the auction and the allocation of credits. During that time the enterprise was kept in indecision, with the resources which it was offering as participation committed but unutilised. Because the volume of applications far exceeded the funds to be allocated - less than half of the applications were accepted - much of the effort devoted to the preparation of applications brought no result, while the large number of applications had an adverse effect on the quality of the Bank's
The most fundamental difficulty of the auction system was, however, its periodicity. An enterprise or commune preparing a project, even within a field where auctions were relatively frequent, might well have to wait many months for an auction in which it would be eligible. This, allied to the high rate of rejection of applications, prompted an application wherever possible, with the enterprise or commune seeking loans from auction to auction rather than working out a suitable development strategy and adhering systematically to it. This unwieldiness in the auction system was the principal reason for its abandonment in 1961.

Allocation outwith the Auction

For the substantial part of SIP funds not involved in the auction system, and the entire funds after 1961, a process of continuous allocation was applied. The enterprise, commune or republic seeking an investment loan submitted a detailed application, as for the auction, which the Bank then scrutinised in the light of its full implications for Plan objectives, the funds available for allocation to that branch, and any competing projects.

The only guides to the applicant on its prospects for securing funds were the statement of objectives given in the Plan, and the relative sectoral priorities implied in the investment targets. Project selection was firmly constrained by the pre-allocation of funds by sector; when all the funds available to a sector had already been allocated, an acceptable application might be held over until the following year, but was rarely substituted for a less favourable project.

1. Further practical difficulties are described by Đorđević (1962b, pp. 792–795).
from another sector.

Although the application could be lodged whenever project elaboration had been completed, without waiting for an appropriate auction, many delays in the processing of applications still occurred.

**Investment by the Enterprise**

The enterprise, with its right of initiative and the volume of funds at its disposal, played an apparently central role in investment decision-making, but one which was, in practice, closely circumscribed. Unless the enterprise could finance a project entirely from its own resources, it had to seek a loan from the SIP's, and be exposed to their decisions. The participation requirement was evolved as a powerful instrument for channelling enterprise resources into projects which accorded with the planned sectoral allocation of investment and the other criteria being applied by the SIP managers: the participation could be flexibly adjusted to absorb much of the resources which the enterprise had available, or provided from other sources, if self-finance was impossible. 1. Gorupić (1962, pp. 724-735) estimates that in 1960-61 the SIP financed 42 per cent of industrial investment directly, but the participation provisions extended its influence to around 70 per cent. A further part was subject to similar influence from the Republic and commune SIP's. The committee of experts (Tarković-Kućar et. al. (1963, p.204)) similarly concluded that

1. Participation could be required from the commune or Republic as well as from the enterprise.
investment policy was the community. The community organised and financed economic development.

**Investment Criteria**

The retention of centralised control of investment was justified by Horvat and Jelić 1 as necessary for 'the synchronisation in time and structurally of capacity changes' and the application of 'social criteria of rationality'. The deficiencies of individual decision-making are elaborated by other writers:

'The individual investment project is not in a position to go beyond its direct economic effect, that is, it is not in a position to measure and include the indirect effects of a given investment (its effect on the development of other productive branches, on the growth of the social productivity of labour etc.).

(Stojanović (1965b, p. 245)).

'In deciding the direction for investment, we must not begin from profitability in the existing system, but from that of the system which leads to the realisation of the objective of development. The appraisal of profitability as the indicator for investment must take account of the differences in profitability between the existing system and the new relations arising from the effects of the investment. The law of value, in this case, operates in a specific way, in its "perspective aspect".

(Lašević-Kučar et al. (1962, p. 222)).

But to revise and implement the appropriate social criteria presented the system with its most intractable problem. The many interventions in pricing resulted in the distorted representation of the profitability of investment in different sectors and in the degree of dependence on external financing. Pilč (1958, p. 241) pointed to this:

'(... the low level of transport tariffs) gives rise to unnecessary transportation on the railways, while they struggle with the maintenance of their already obsolete capacity. At the same time, some industrial branches accumulated investment resources because of the low rail tariffs...

The high accumulative capacity of industry, on the other hand,

1. Quoted on pp. 68-69.
frequently leads local government organs to the orientation towards an industrial project in preference to improving agriculture, because the former activity gives far more rapid and sizeable profits.

The distortions arising from the price system were less strong within each sector, but even within the auction system, where the rate of return was most extensively applied, additional criteria were often felt necessary; from criteria such as meeting 'the area of greatest need', providing 'the most rapid increase in output' and similar formulations became increasingly common, expressed in physical units, to avoid the difficulties of valuation. 1.

The deficiencies of the price system and the multiple criteria implied in the Plan objectives could have been taken into account through shadow prices, but there is no evidence that decisions were systematised in this way. Indeed, the degree of discretion, almost randomness, in the Bank's decision-making was criticised by Grujić (1962b, p.733):

'In the Bank's choice of project, not only are these economic criteria applied, but there is also frequently a compromise between economic and non-economic criteria, a mixture of various problems and influences, with the result that applicants for loans do not always have adequate elements for their own orientation'.

The committee of experts (Takčević-Kučar et. al. (1963, p.269-270)) were also highly critical of the quality of investment decision-making:

'Rational investment decision-making is largely dependent on the application of suitable analytical tools. The present analytical methods used in examining the efficiency of investment are too much, even quite exclusively, oriented towards primary effects and do not include secondary effects and further consequences,'

1. The auction of funds for hotel construction (10 March 1958) was to favour 'areas with the lowest ratios of hotel capacity to the number of visitors', while projects for construction materials (13 June 1959) were to be selected according to the interest rate, the extent to which they solved the problem of supply in deficit countries, reduced the cost of production, had a favourable effect on the balance of payments, and achieved the greatest use of by-products, in addition to the participation offered and the period of repayment.
which may be even greater than primary effects and even nullify them.

... The methods of macro-economic analysis used at present in elaborating social plans are not satisfactory, and cannot allow the working-out of necessary alternative development possibilities for the country as a whole, allow neither the consideration of their consequences nor, therefore, the optimal selection and implementation of the development policy which appears in the social Plans in practical investment policy'.

Thus the opportunity for rational investment, offered by the review of investment projects as part of the process of allocating funds, was in practice largely dissipated by the poor quality of much centralised decision-making, both in sectoral allocation and project selection.

The Investment System and the Underdeveloped Regions

The regional allocation of investment was not ranked explicitly among the basic proportions for development planning, but the elements of the investment system, which gave the authorities such extensive control over its level and sectoral distribution also afforded considerable control of its regional incidence, greatly to the advantage of the underdeveloped regions.

Decentralisation, with its emphasis on reliance on local resources and initiative potentially posed a serious threat to the level of investment in the underdeveloped regions, due to their low capacity to generate savings; but this threat was averted, in practice, by the application of decentralisation in investment only to the initiative in project-elaboration and not to either the accumulation or the distribution of investible funds. The relatively limited role of self-finance from retained profits, and the adjustment of the participation requirement in accordance with the resources available to the enterprise, relieved the under-developed regions from much of the deficiency of their small volume of profits, while the accumulation of GIF resources through
taxes on the enterprise, particularly the tax on capital assets, drew proportionally less from the underdeveloped regions. The position of the GIF, as the central reservoir for investment funds, eliminated any institutional obstacle to the inter-regional mobility of savings. Moreover, federal determination of the proportions of the revenue from various taxes allocated to the GIF's at the lower political levels, and their variation by region, was the major influence on the volume of resources available, particularly from the Republican GIF's.

The decisions on project selection, the second stage of investment allocation, of themselves involved decisions on location: the regional allocation of investment was, at this level, whether explicitly or implicitly treated, inseparable from questions of sectoral allocation. But the principal difficulty of the investment system involved not control, but criteria. Social surveillance of investment decisions, on the basis that 'the enterprises proposed, the planners disposed', designed to allow account to be taken of the full social consequences of investment, provided an arrangement particularly favourable to the underdeveloped regions, where the external economies of development could be expected to form a larger part of the effects of investment. Most Yugoslav commentators doubted, however, whether a full appraisal was applied, in spite of the framework provided by the investment system; but their criticisms were usually directed not so much against the over-rigid application of the rate of return, which would have been disadvantageous to the underdeveloped regions specifically, as against unsystematic and technically weak decision-making.

1. The complementary nature of the two types of decision, and its implication for regional policy, is strongly made in Stevicović (1962).
(v) The Regions and the Planning Process

The principle of decentralisation conferred on all units, the federation, Republic, communes and enterprises, the right to formulate their own plans and participate in the planning process. Plan preparation began, more or less simultaneously, at these various levels, with each unit drawing up an outline of its objectives for the plan period, loosely within the constraints of the resources expected to be available. The elaboration of the Plan then consisted of a two-way process of adaptation, to secure consistency among the various plans, and between total objectives and available resources. While the planning levels were territorial, sectoral and group interests were also well represented, with the Economic Chambers representing the various industries, consumer associations and trade unions taking part in the discussions.

In the political sense it was true, as Lang (1963, p.305) pointed out, that the process of planning consisted in "a dialogue of equal partners, on the best ways and alternatives of development", but Yugoslav planning was concerned essentially with investment, and only in a secondary way with the elaboration of other targets, with the result that the crucial decisions were those affecting the allocation of investment, thus giving corresponding importance to the units responsible for the disposal of investment resources. The federation and the enterprises predominated as sources of investment funds (Table 2-2), and the regulation of enterprise investment, through the restrictions on the use of amortisation funds, and the participation requirement, made the federation of dominant importance. The share of the Republic in investment financing remained very stable throughout the period, while the share of the commune increased notably, due largely to the expansion of
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Communes, excluding Housing n.a. n.a. 0.0 0.0 2.8 2.6 3.2 3.9 5.2 7.7 8.8 7.8

Investment from each source is shown as a percentage of total gross investment in that year.
The role of the Republic in the planning process did not achieve clear definition during the period. Republican plans were comparable in form to the Federal Plan (apart from the exclusion of foreign trade), in dealing with the outline pattern of development for their territory and in having as their key sections those setting out the global proportions for investment. As the first level of territorial disaggregation of the federal Plan, their position was obviously important, yet supported by little real power. In accordance with the federal structure of the country, the Republic was responsible for projects of republican, as against national, importance, but Republican resources were seldom adequate for it to implement these without resort to federal financing and, therefore, surveillance. This tension between the important planning role of the Republic and its limited resources was commented on by the committee of experts (Fabčević-Kućar et al. (1963, p.273)):

'In development to date, investment resources have been polarized with the two conductors of investment activity, the federation and the enterprise, while in non-economic investment the role of the district and commune has increased. The role of the Republic has continued to wane, with the result that in the period 1957-60 it carried out only 7.5 per cent of all investment in fixed assets. The Republic has thus been almost excluded as an economic force in the field of investment. Its political responsibility for economic development on its territory has not ceased along with this, and the Republic has emerged as a political force in the demand for investment resources - and in influencing the central decision on the distribution of investment and on each more important individual investment decision. The investment resources of the Republic for industry are expended mainly as participation in loans from the GIF and help to their own underdeveloped areas. The inability of the republic to conduct investment, and that means also development, policy on its territory has resulted in the investment policy of the federation being under strong pressure from the Republics, and
under individual pressure from the communes and enterprises, which lowers the quality of central investment decision-making.

**The Commune**

The commune (obština) was inaugurated as the organ of local government in 1955. In that year, 1479 communes were established, with an average population of under 12,000 inhabitants, but their number was progressively reduced by amalgamation, until in 1964 they numbered only 577, with an average population of 33,000. Larger cities had a city administration, subdivided by wards.

The commune's responsibility for 'social surveillance' of the enterprises gave it a special relationship with them. Large enterprises might discuss their affairs with the Republican or federal authorities, but the majority of enterprises had direct dealings with the political authorities only at the level of the commune. The economic affairs of the commune were conducted by the Council of Producers, representing local enterprises.

The requirement that the commune approve the final annual accounts of the enterprise (in part, a form of audit, to safeguard against illegal actions by the enterprise) kept the commune informed in detail of the enterprise's position. The further right of the commune to receive and discuss the plan of each enterprise was designed to promote the coordination of the activities planned on its territory. The Council of Producers was not empowered to require alterations to enterprise plans, but had the right to make recommendations which

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2. The commune Council of Producers was elected as two colleges, one for agriculture and one for other economic sectors, the membership of each being proportional to its share in social product. Within each college, seats on the Council were allocated among individual enterprises, or groups of smaller enterprises, in proportion to their number of employees.
the workers' council was bound to consider, and often, in practice, accepted. Even without a formal recommendation from the Council of Producers, the enterprise, in its turn, could be kept informed through its own representative on the Council. The influence of the commune on plan preparation derived, in part, from the clarification which resulted from the process of discussion within the Council of Producers, but two concrete powers gave force to its recommendations. The resources of the commune SIF, while limited in volume, were an important source of finance for local enterprises, and the commune was often required to guarantee any loan sought by an enterprise from the Republic or federal SIF's; by withholding these, the commune could check developments of which it did not approve.

The communes in particular, but also the Republics, were given a strong vested interest in promoting local development, through their right to retain specified shares in the taxes on the enterprise and on personal incomes raised on their territory, and to levy supplementary taxes. Equally, the provision that the commune, backed up by the Republic, was financially responsible for enterprise losses, gave them an interest in efficient development. To protect the enterprise and its profits from exploitation, the taxation rights of the commune, and in particular its discriminatory powers, were often regulated by the federation. 1

The commune plans differed from those of the Republics in being prepared with reference to specific projects and after discussion with the enterprises themselves, rather than as basic proportions of development. The commune impinged on producers' plans directly, through review

1. Until 1962 the commune had extensive powers of taxation over the private sector; its ruthless use of these, harming the development of handicrafts, catering and tourist services, led to the curbing of these powers in 1962.
by the Council of Producers, while the Republic influenced development primarily through the implementation of the basic proportions, to the extent that its limited resources allowed.

The enthusiasm for decentralisation, particularly in the early 1960's, led many Yugoslav writers to exaggerate the importance of the commune in planning economic development. Kubović (1959, pp.61-62), for example, claims that:

'The direct management of the economic development of the country is the responsibility of the Commune, which fulfils its task within the framework of the general planned proportions and by means of its own plan of economic development. These plans also form the essential media of communal self-government in the economic field. This lends exceptional importance to these regional plans and causes the essential difference between them and other general plans'.

But, apart from investment in housing, not only was the share of the commune in the financing of development small, but the disposal of its resources was heavily influenced by the requirements of Republican and federal participations. Only in the case of small projects did the commune have much autonomy in organising development on its territory; for many projects, its initiative in proposing further developments was largely offset by the need for outside finance. The lack of skilled personnel in the communal planning offices (commented on by Đorđević-Kučar et al. (1963, p.131) and Lang (1963, p.305)) restricted the responsibilities which the central planners were, in practice, prepared to confer on the communes. The Council of Producers, the body responsible for exercising the commune's functions in economic affairs, came to be regarded as one of the less successful of the innovations introduced with decentralisation; in particular, effective co-operation within the Council was often difficult to secure, with its members representing the individual enterprises whose affairs were closely involved. 

1. This point is discussed in a wider context, in Auty (1962, pp.117-122).
The District

The district (srez) was much the least important of the territorial units. In 1955 107 of them were established, as groups of adjacent communes brought together for purposes for which the commune was too small a unit, and the Republic too large. The progressive increase in the average size of the commune eroded their usefulness, bringing a decline in their number to 40 in 1963-64 and the decision, embodied in the 1963 Constitution but delayed in implementation, to abolish them. In the cases of Montenegro and Kosovo, the Republic or region proved, of itself, a sufficiently small unit, and, from 1953 and 1960 respectively, districts ceased to exist in these territories.

District plans were, in the main, simply aggregations of the plans of member communes. Their major role lay in the coordination of certain types of investment: infrastructural investment, for roads, electricity networks, irrigation projects and specialized education or health facilities, the exploitation of forested areas, and activities such as food-processing which required several separate, but coordinated, projects. The limited investment resources of the district were largely for financing infrastructure, but on occasion also for assisting projects being-launched by communes, particularly through a contribution to the participation required. The district functioned, therefore, as an intermediate unit for coordinating individual types of investment only, rather than as a full planning unit.

Integration of the Plans

While all the decentralised bodies had the formal right to draw up their own plans, the retention by the central authorities of extensive

control over investment resources limited the range of realistic plan alternatives; a plan which failed to accord with national objectives had poor prospects of subsequent implementation, in the common situation where outside financing was required. The planning process, as it operated between 1953 and 1964, did not evolve a satisfactory solution to this tension between decentralised plan preparation and centralised control of resources; the break-down of the national development objectives into detailed regional and sectoral implications and to prospects for the individual enterprise, remained a tenuous process. The lack of guidance from the centre to the communes and enterprises responsible for proposing many of the new projects which would implement the global objectives easily resulted in misdirected planning. This criticism was made by the committee of experts (Đakšević-Kućar et al. (1963, pp.152-154)):

'The economic system, with its essential characteristic of the interaction of central and decentralised investment decisions, demands a clearly and definitively formulated Yugoslav policy for economic development, which would serve as a definite orientation to enterprises and communes in making investment decisions. The lack of such a policy is unsatisfactory from many aspects... and is, in part, the cause of our current economic difficulties'.

Gorunić (1962a, pp.475-476) similarly stressed the difficulties arising from 'the lack of a sufficiently clear and consistent national Yugoslav economic policy, which would be consistently executed and would serve as a more definite orientation for enterprises and communes'.

Although the planning process was intended to secure the integration of the plans of the many decentralised bodies into a consistent whole, complete dovetailing was not required. This arose from the recognition that such a degree of precision was unnecessary, and also inappropriate to the uncertainties of economic life, particularly as many of the plan targets, such as those for the growth of output and employment, were not strictly operational in themselves but were only predictions,
working out the implications of the investment targets.

The global proportions, however, were intended to be implemented precisely, making a high degree of consistency in the investment targets of the various plans necessary, if they were to serve as realistic targets. In this crucial respect, the discrepancies which remained after the plans were drawn up in final form far exceeded a margin of toleration to allow for uncertainties. Gomušić (1962a, p.477) calculated that in the 1957-61 Plan

'the total of investment in industry in the plans of the Republics is 25 per cent greater than in the federal plan. In one Republic, the total of investment in industry in the commune plans is 34 per cent greater than in the Republic plan',

implying that the total industrial investment planned by the communes might be as much as two-thirds greater than that planned by the federation. Inconsistencies of this order made it impossible for the plans adequately to fulfil their function of the exacte coordination of investment decisions, and the resulting ad hoc corrections during implementation had a further adverse effect on the quality of investment.

Miljaković (1964) identifies a further source of difficulty in the territorial structure of the SIP's, their pursuit of local interests tending to give rise to duplication and poor coordination of projects. But the weakness was not so much the territorial organisation of the SIP's, as the inappropriate distribution of investment resources among the various levels, and in particular the over-concentration of control at the centre and the weakness of the Republics. The communes, with their strictly local interests, tended to encourage the excessive dispersion of development and poor coordination of projects; but their limited volume of funds and the participation requirement made available means for their control. The appropriate body to coordinate the
development plans of the communes was the Republic, which could deal with a sufficiently small number of communes to allow adequate project-scrutiny and local knowledge. The Republic, however, not only did not have sufficient resources at its disposal to fulfil this role vis-à-vis the communes, but itself had to devote much energy to winning allocations from the federation. The federation was thus under pressure from individual communes as well as from the Republics. This over-concentration of decisions, as a result of the concentration of funds and the participation requirement, gave rise to poor decision-making. The weakness in the investment system was not the territorial structure of the SIP's, in itself a very serviceable arrangement, but the inability of the Republic, with the inadequate funds at its disposal, to serve as the first-level coordinator and filter of investment decisions.
(vi) **Special assistance to the Underdeveloped Regions**

The degree of control over the development of the national economy retained by the planners within the system of decentralised planning would appear to have been sufficiently firm and comprehensive to include the implementation of regional policy, but special measures were, nevertheless, consistently adopted to promote the development of the underdeveloped regions.

In spite of having been pushed into the background in economic policy-making during the difficult years 1949-52, 'eliminating the results of unequal development' among the republics had remained an objective, if hardly an immediate one, in the country's development. Its continuing significance was confirmed by the inclusion in the 1953 Constitution (Yugoslavia (1953, chap. 2 art. 17)) of the provision that 'the Federal Social Plan shall allocate to the federation those financial resources established by law which serve... for assistance to underdeveloped parts of the country'.

The special promotion of the development of the backward regions was thus made not only an objective of economic policy, but a constitutional obligation of the federal government. Some provision for special assistance was accordingly included in each subsequent social plan.

Assistance was to take the form of the allocation of investment funds ('financial resources'). This emphasis on investment was consistent both with the Yugoslav approach to the regional problem as one of development, and with the role of investment as the principal planning instrument. Scarcely any use was made of the policy approach frequently adopted in capitalist countries, of granting fiscal concessions to lower costs and thus attract investment, to specified areas. The usefulness of this latter approach in Yugoslav circumstances was limited. With the regional allocation of investment largely in the
control of the authorities, incentives to attract investment could, at
most, have influenced a small volume of decentralised resources. Inter-
regional mobility of decentralised resources was limited; the deep
regional differences gave rise to a natural reluctance, which was
reinforced by the requirement, in accordance with the principle of self-
management, that managerial control be vested in the local workers'
council. 1. The subsidies and other forms of intervention described
above, which, to a considerable extent, undermined the application of
profitability throughout the Yugoslav system, were used not as a means
of influencing the regional allocation of investment, but in an ex post
capacity, to assist individual industries or enterprises in difficulties,
the extensive assistance to the underdeveloped regions provided through
them thus deriving indirectly. The planners' almost exclusive
preference, therefore, for the much more powerful and direct instrument
afforded by the investment system corresponded to the opportunities
offered by the Yugoslav system.

Decentralisation without Long-Term Planning, 1953-56

In 1953, although the disruptions caused by the Cominform blockade
had been largely overcome, partly with aid from the west, and the
framework of the new economic system established, the outlook remained
uncertain, because of Yugoslavia's isolated international position and
because of the time necessary for the very radical changes of 1950-53
to be absorbed. In this prevailing uncertainty, no attempt was made

1. or branch plants, a tiered structure of workers' councils was
applied, representatives of the parent enterprise serving on the
branch workers' council (where they were restricted to a minority
of seats) and vice versa. This gave the parent enterprise some
for influence, but not full control, in the management of the branch
plant.
to introduce a new long-term plan: the New Investment Programme, the limited programme adopted to salvage certain specific projects from the wreck of the Five-Year Plan, continued in force, but, for the rest, development planning was conducted only through annual plans. These years, 1953-56, were years of decentralisation without long-term planning.

The Plan for 1953 did not mention the 'underdeveloped regions' as a specific category, but special assistance can be inferred from various provisions. The temporary basic proportions of the 'rate of utilisation of capacity' and the 'rate of accumulation and funds' were still in force, and the investment projects to be undertaken during the year were listed individually, including a number from the underdeveloped regions, but with no indication as to whether their adoption stemmed from special efforts for these regions, or from national policy decisions, independent of regional considerations.

The regional element was clearer in the accumulation of investment funds; the proportion of the revenue raised in each Republic by the tax on 'accumulation and funds', which was to be contributed to the federation, was specified: in Slovenia 66.6 per cent, in Croatia 56.6, in Serbia 53.2, in Bosnia-Hercegovina 45.2, in Macedonia 61.5 and in Montenegro 21.1 per cent; not only was Montenegro thus particularly favoured, but the four poorest Republics were to receive interest-free credits from their contributions to the federation, in Macedonia and Montenegro of their entire contribution, in Bosnia-Hercegovina of 96 per cent of it, and in Serbia of 7 per cent. Macedonia and Montenegro, moreover, were each to receive credits from the federal budget at a special interest rate of 2 per cent. These interest-free and 2 per cent credits were to be used only for the purposes of investment, to cover

1. See pps. 68, 73.
requirements contained in the various plans. (Plan (1953, paras. 4, 5)).

Grants from the federal budget were also allocated to Macedonia and Montenegro, to help cover their budgetary expenditures. This provision was renewed in each year throughout the period, and was of considerable importance to these Republics.

It can be inferred from these provisions that special assistance was being extended to Macedonia and Montenegro, and, to a lesser extent, Bosnia-Herzegovina, through the increased availability of investment funds for approved projects. But as the reorganisation of the entire system of investment financing was imminent these provisions were intended to be only temporary.

The Plan for 1954, the year in which the competitive allocation of funds from the GIF was begun, introduced federal financing of "large projects of general importance" in the underdeveloped regions. Credits for these differed from other allocations from the GIF by being laid down in the Plan and therefore independent of the general competition and interest rates offered. Moreover, the interest and repayments on them were made repayable to the Republican Investment Fund (RIF) of the Republic concerned, and not to the GIF. By being repayable, the funds came to the projects involved in the form of a loan, to encourage their efficient use: but, by originating in a federal source, and being repayable to the Republic they were equivalent to an investment grant to the Republic. The repayments strengthened the resources of the RIF both for reallocation within the Republic, and for providing participations to help projects from there in the auctions for loans from the GIF (where projects from the underdeveloped Republics could compete in the normal way). Considerable use was made in later years also, of this form of provision.
This first use, in 1954, of the planned allocation of funds to the underdeveloped regions from the GIF was, however, a limited one, and still bearing the features of the old system of administrative allocation. The allocations were confined to a small number of projects, specified individually, in the three republics of Macedonia, Montenegro and Serbia: the projects in Serbia were by no means confined to areas later recognised as underdeveloped, but were widely spread through the Republic; no project from Bosnia-Hercegovina was included under this head. A small allocation, not tied to any project, was specified for 'development in Kosmet'.

Federal assistance to the underdeveloped regions also included the financing of a survey of mineral resources in Montenegro and coal deposits in Kosmet, and a further allocation for general surveying in the underdeveloped regions.

In 1955 the same form of assistance, through planned investment allocations from the GIF, was used, but in the more general form of a global allocation to each of the republics of Macedonia, Montenegro and Serbia, for 'the more rapid development of these regions'. Their precise application was to be decided by consultation between the Federal Executive Council and the Executive Council of the Republic concerned, that is, by their respective governments. In this, even with the further step towards decentralisation, the implementation of assistance to the underdeveloped regions still retained features of administrative planning.

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1. The projects were mainly in the basic industries: the hydro-electric schemes at Mavrovo (in Macedonia) and Gomilica Zete (in Montenegro), the iron-mine at Kicevo (in western Macedonia), the steel mill at 'Kras', the copper-mines at Tajdanpek and Bor (in eastern Serbia), a viscose plant at Loznica, on the Serbian bank of the Drina, railways in Macedonia and Serbia, and irrigation in Vojvodina. (Plan (1954, chap. xiii)).
The continuing repayment of earlier federal investments to the IF's of Macedonia and Montenegro, but not Serbia, was confirmed. The repayments due on federal loans to Bosnia-Hercegovina in 1952 were transferred to the Republic, to be used exclusively for education and health projects. While helping to equalise the position of Bosnia-Hercegovina, in the financing of social capital, vis-a-vis Macedonia and Montenegro which received annual budget grants from the federation, this somewhat unwieldy provision, involving an amalgamation of sources of productive and nonproductive investment, was not repeated. (Plan (1955, chaps. ix, xv)).

The provisions in the Plan for 1956 tailed off slightly, in anticipation of the introduction of the new Five-Year Plan. Global allocations from the GIF were again made to Macedonia and Montenegro, but in the more direct form of grants to the RIF's themselves. Intended in the first instance for the completion of projects already under way, and for providing participations and guarantees for applications to the GIF, any surplus on these allocations could be used for new projects, if approved by the Federal Executive Council. Repayments, including those on all loans since 1953, were allocated to the RIF's. (Plan (1956, chaps. x, xxv)).

In its early years, therefore, special assistance to the underdeveloped regions was arranged on a year-to-year basis, both in the selection of eligible regions and in the form in which assistance was given. Macedonia and Montenegro alone were scheduled in each of the four years; Bosnia-Hercegovina featured only in 1953, and, for social capital only, in 1955; Serbia, after a minimal concession in 1953, was strongly represented in 1954 and 1955, but not at all in 1956; Kosovo was mentioned explicitly only once, in 1954. Although the application of
investment assistance was progressively widened by the provision of global credits, it was confined essentially to a small number of individual projects, scarcely amounting to a regional development programme.

Iričković (1958, p.270) gave as his verdict on the years of 'decentralisation without long-term planning' that

'the lack of a long-term policy for the development (of the country) as a whole and for the development of the underdeveloped regions did not allow stability and a long-run character in the methods of financing, a fact which had an entirely negative effect on the efficient solution of the (regional) question'.

Guaranteed Investments, 1957-60

With the return to longer-term planning in 1957, and the greater confidence in the country's economic prospects which it expressed, the development of the backward regions received more detailed attention. The Plan for 1957-61 listed among its summary objectives for the period 'to assist the development of the economically backward regions', and included a chapter on 'regional development' giving the substance of its provisions. (Plan (1957-61, chap. viii)). The federation was to

'take measures for the development of the economically backward areas in general, and, in particular, within the Republics of Macedonia and Montenegro and the autonomous region of Kosmet'.

The measures comprised priority in the GIF allocations for projects from these regions, 'provided they satisfy, to an equal degree, the criterion of profitability'; a guaranteed allocation of investment funds to each region, over the Plan period; the provision, from the GIF, of the necessary funds for guarantees and participations, and the repayment of all loans from the GIF to the appropriate KIF.

This was the first time, in the twelve years since the end of the war, (apart from a brief mention in 1954), that Kosmet had been scheduled for special treatment, in spite of its status as an autonomous region and
its undoubted poverty. 1. Bosnia-Hercegovina was omitted, 'because of
the success already achieved in the earlier period', according to Uvalić
(1962, p.293).

Of the various measures of assistance, by far the most important was
the 'guaranteed investments', an extension of the allocation of global
credits already applied in 1955-56. They were allocated by branches in
the annual plans, as programmes and projects were approved, 2. and made
repayable to the RIF's.

The priority of projects from the underdeveloped regions in the
allocation of GIF funds, given equal profitability, made little contribu-
tion to channelling funds to these regions. No figures can be given
of amounts involved, but Yugoslav economists concerned with the
financing of the underdeveloped regions tended to dismiss its usefulness,
on the grounds that comparable projects, from different parts of the
country, offering equal profitability, did not arise. 3.

Preferentially low interest rates and extended repayment periods
could be granted by the GIF, but, with the RIF itself receiving these
repayments in each Republic, labor participation was a more popular
concession.

The repayments of all credits allocated from the GIF for projects
in the underdeveloped regions, and not only those from the 'guaranteed
investments' were granted to the RIF's. In the case of Kosmet, this

1. From this time, Vojvodina and Kosmet were increasingly given parity
of treatment with the Republics. An incidental, but important, conseuence of this was the improved availability of data for them,
including national income accounts.
2. Plan (1957, chaps. v, xxvi), Plan (1958, chaps. iv, xiv), Plan (1959,
chaps. iii, xvii), Plan (1960, chap. iii, para. 7), Plan (1961, chap.
iii, para. 7).
3. The general uncompetitiveness of projects from the underdeveloped
regions was acknowledged by 'Ivanović, Head of the Regional Section
provision was made retroactive, to cover all loans since 1953. This waiving of federal rights to repayments, in favour of the RIP's, making the investment 'free' to the underdeveloped regions, helped to compensate them for the advantage gained, between 1947 and 1952, by Slovenia, Bosnia-Hercegovina and Croatia, the regions which received the largest volume of investment when, in general, no change was being made for capital.

Judgedary assistance, to cover non-productive investment, was expanded, as investment in social capital increasingly took the role of the second spearhead of attack on underdevelopment.

This system of guaranteed investments had three major advantages over its predecessors, from the point of view of the underdeveloped regions. The total volume of funds made available was substantially increased; in the case of Kosmet, previously starved of finance, the effect was immediate, in Macedonia and Montenegro the biggest increases occurred in the allocations for 1959 and 1960, as projects were prepared and approved. Secondly, the fixing of each region's allocation for a five-year period, instead of from year to year, allowed investment programmes to be prepared for several years ahead. And thirdly, a more comprehensive view was now taken of regional development; the guaranteed investments covered not two or three individual projects, but important projects arranged between the federation and the region, and in addition, through unallocated grants to the RIP's, supplementary investments of a minor sort. This gave the underdeveloped regions the extra funds necessary to implement a more complex programme of development, instead of being dependent on individual plan projects.

Satisfaction with these changes was expressed by Orlofkov (1959, p.271):
The introduction of the Five-Year perspective Plan resulted in
the development of the underdeveloped regions raising the quality
of a long-term programme which, by its very nature, the problem
itself directly demands'.

A precursor of the changed provisions of the later Plan period
was the extension of special assistance, in 1959 and 1960, to under-
developed areas within other republics. The Plan for 1959 instructed
the Federal and Republican Planning Offices to survey the development
plans for other underdeveloped areas, and provided for unallocated funds
from the Federal and Republican Plans to be used for financing approved
projects there. In 1960 this was extended by the provision, in the
Federal Plan, of a small allocation for investment in industrial
projects in these areas.

Waiting for the Special Fund, 1961-64

Following the successful completion of this Five-Year Plan in
1960, a year ahead of schedule, a further Five-Year Plan was enacted,
spanning the years 1961-65. In greater detail than its predecessor,
it declared its intention (Plan (1961-65, chap. 1, section 1 (c)) to
promote in the underdeveloped regions 'development which will be more
rapid than in the previous period and more rapid relative to the rest
of the country'.

An ambitious new classification of underdeveloped regions was
introduced, comprising the whole of Macedonia, Montenegro and Kosovo,
as previously, and also specified districts in Serbia-Ironac, Bosnia-
Hercegovina and Croatia, as partly anticipated in the Plans for 1959
and 1960. The inclusion of south and south-west Serbia, southern and
western areas of Bosnia-Hercegovina, and the Kupa, Zemla and Kordun
districts in western Croatia, extended the underdeveloped areas to all
Republics except Slovenia, and comprised 6.2 million inhabitants, 23 per cent of the national population, in place of 15 per cent in the previous Plan.

The purpose of the new classification was to give more complete coverage to the areas of underdevelopment, by defining what the Plan called 'the compact geographical zone' rather than political units.

But the classification, cutting across political and administrative units, raised many practical difficulties, both for planning and administration; even more damagingly, the separation of the underdeveloped areas from the more developed parts of their Republic often deprived them of the natural focus for their development: 1. the availability of data, including national income accounts, on which to base analysis and policy, was much sparser than at the level of the Republic. For these various reasons, this classification proved so unsatisfactory in practice, that it was subsequently abandoned, in 1965.

Other difficulties were encountered in these years. The entire federal Plan, almost as soon as it was introduced, ceased to serve its function of giving the guide-lines for development; its underfulfilment in 1961 and 1962 was sufficiently severe to render irrelevant its targets for later years, with the result that, for the second time in three Five-Year Plans, ad hoc decision-taking took the place of long-term planning.

The arrangements for financing the development of the underdeveloped regions were on an equally ad hoc basis. According to the Plan, the allocation of funds would be conducted by the Federal Fund for the Development of the Underdeveloped Regions, to be established for the

1. This point is discussed more fully in Chapter 3, section (ii) below.
purpose. But this was first delayed to await the enactment of the new Constitution, (ensuring resources for the development of the underdeveloped regions being a constitutional obligation of the federal government), discussions on which continued throughout 1961 and 1962. By the time the Constitution was enacted in 1963, discussions were already under way on the major reform of the investment system, particularly the stark reduction in the functions of the GIF. It was not until after the end of period, in February 1965, that the Fund was eventually set up.

As Čolamović (1962, p.150) dryly commented at the time:

"The damage resulting from its non-existence is probably greater than the hypothetical advantage which can be conferred by the "best" form of status, management and methods of operation of the Fund, the search for which has caused the delay'.

In the interim, the allocations were conducted on a year-to-year basis. The guaranteed investments had been superseded from the end of 1960, but allocations continued to be made, in 1961 and 1962, for projects begun, in the three major regions, under the earlier arrangement. As the importance of these declined, in 1963 and 1964, an increasing allocation was made to the 'Fund', to finance new industrial projects in the current underdeveloped regions. This amount was allocated among the various RIF's, in Macedonia, Montenegro and Kosmet for the development of the regions as a whole, in Serbia, Bosnia-Hercegovina and Croatia for development exclusively in the designated areas. Allocation among projects was then the responsibility of the region concerned, terminating the lists of approved projects. With the transfer of the block allocations to the RIF's, the system of waiving repayments on them, in favour of the RIF, became redundant.

The annual Plan for 1964 made explicit mention, for the first time, of the importance of technical assistance, through the provision of
technical services and skilled personnel, by other bodies, to communes and enterprises in the underdeveloped regions.

From the point of view of the underdeveloped regions, the constitutional provisions during these years were far from satisfactory. As arrangements under the system of guaranteed investments were wound up, the special allocations were again made on a year-to-year basis, impeding long-term planning. The discretion given to the regions in the allocation of the block grants among individual projects was more apparent than real, as they were often seeking other finance from the federation, which exposed their activities to scrutiny. The underdeveloped areas of Serbia, Bosnia-Hercegovina and Croatia, while comprising adjacent districts and communes, lacked their own planning and administrative organs, which resulted in delays and poor coordination in the use of funds. Thus, although a substantial volume of assistance was being allocated, the method of its administration made these frustrating years for the underdeveloped regions.

The Volume of Assistance

The narrative account of the evolution of special measures in favour of the underdeveloped regions shows that assistance was made available principally through the direct method of the channelling of investment funds under a number of different heads, but also through the indirect method of preferential interest and repayment terms and lower participation requirements. The practical difficulties encountered in estimating the amount of assistance given to each of the underdeveloped regions proved considerable. Certain items, notably the amounts of investment granted as a result of lower participation requirements and other preferential terms, were intrinsically difficult, if not impossible to assess, 'u'
even where the amounts were, in principle, calculable, details were not readily available on the extent of assistance. In any, but by no means all, allocations were specified in the various Plans, but, even in an economy where investment planning was the heart of the planning system, Plan figures are, at best, a proxy for realised investment.

But a more fundamental difficulty in the appraisal of the extent of special assistance is conceptual. Special assistance was only a particular measure within the system of planned development. Its sphere of application could, and did, overlap with planned development implemented in the normal way, particularly through the rather discretionary allocation of GIF funds outwith the auction. The same project could be financed, sometimes from the one source and sometimes from the other. The construction of the harbour at Bar was specified, in the Plans for 1954 and 1955, as a project of federal investment in transport, in the same way as, for example, the building of Belgrade airport and certain sections of railway, and apart from special assistance to Montenegro; but under the 1957–51 Plan it was an approved project within the system of guaranteed investments. Similarly the 'Fund' resources, in the years 1961-64, were specifically restricted to the financing of projects in manufacturing industry, agriculture and local transportation, while projects in the basic industries, including transport facilities, were to be financed from the GIF, but allocations, such as for 'the construction of roads in Macedonia' featured in the general list of planned allocations from the GIF and not, in spite of their close relationship to Fund activities, as part of special assistance.

1. The Investment Bank, on being approached by the author, declined to make available figures on the amount of investment financed from special assistance.
assistance. The exclusion of the basic industries from fund financing, moreover, implied special treatment for them through the GIF, unless unless development in the underdeveloped regions was to be specifically biased away from them. In the Yugoslav context, therefore, of planned development through investment planning, the volume of assistance under special measures cannot define, with any precision, the extent of federal efforts for the underdeveloped regions.

A much more useful measure is the comparison, among the regions, of the proportion of their total investment which was financed from federal sources (Table 2-3). This measure has the advantage of including all investment financed from federal sources, irrespective of the precise category (budgets, guaranteed investments, GIF, 'Fund', etc.) through which it was made available, thus avoiding the difficulty of trying to trace all the amounts allocated from different sources. Conversely, it fails to separate 'assistance' to the underdeveloped regions from funds allocated on a competitive basis: investment management, however, which made investment allocation mainly an administrative, rather than a competitive, process, severely curtails the applicability of 'the investment cost' of the policy, to be measured by special allocations.

These figures, which are available only for the six Republics, show a ranking exactly inverse to that by level of development, the richest Republics receiving the lowest proportions of their investment finance from federal sources, and the poorest the highest proportions. The high share in Montenegro was notable throughout the period, and in Macedonia particularly between 1955 and 1964.

An indication can be gained, in the case of Kosmet, from the annual changes in the level of total investment, shown in Table 2-4. The low
Table 2-3
Percentage of Federal Funds in Total Investment, by
Republic, 1954-64.

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<tbody>
<tr>
<td>Yugoslavia</td>
<td>47.3</td>
<td>42.4</td>
<td>34.9</td>
<td>31.6</td>
<td>38.5</td>
<td>42.8</td>
<td>37.1</td>
<td>36.6</td>
<td>30.5</td>
<td>23.5</td>
<td>6.8</td>
<td>33.8</td>
</tr>
<tr>
<td>Slovenia</td>
<td>33.3</td>
<td>21.8</td>
<td>16.1</td>
<td>18.1</td>
<td>30.3</td>
<td>25.1</td>
<td>18.6</td>
<td>14.5</td>
<td>13.2</td>
<td>12.0</td>
<td>0.8</td>
<td>18.5</td>
</tr>
<tr>
<td>Croatia</td>
<td>38.8</td>
<td>31.4</td>
<td>26.1</td>
<td>25.8</td>
<td>30.0</td>
<td>38.1</td>
<td>30.1</td>
<td>28.0</td>
<td>26.9</td>
<td>15.5</td>
<td>4.7</td>
<td>26.9</td>
</tr>
<tr>
<td>Serbia (total)</td>
<td>49.6</td>
<td>48.1</td>
<td>38.8</td>
<td>33.8</td>
<td>42.3</td>
<td>45.9</td>
<td>41.8</td>
<td>40.6</td>
<td>31.2</td>
<td>24.9</td>
<td>6.4</td>
<td>36.7</td>
</tr>
<tr>
<td>Bosna-Hercegovina</td>
<td>60.6</td>
<td>52.2</td>
<td>34.4</td>
<td>38.7</td>
<td>42.0</td>
<td>42.7</td>
<td>32.6</td>
<td>37.1</td>
<td>33.5</td>
<td>24.1</td>
<td>6.2</td>
<td>36.7</td>
</tr>
<tr>
<td>Macedonia</td>
<td>57.9</td>
<td>50.2</td>
<td>38.5</td>
<td>31.3</td>
<td>36.1</td>
<td>45.2</td>
<td>51.6</td>
<td>53.8</td>
<td>51.8</td>
<td>53.6</td>
<td>12.8</td>
<td>43.9</td>
</tr>
<tr>
<td>Montenegro</td>
<td>77.5</td>
<td>72.3</td>
<td>74.0</td>
<td>68.0</td>
<td>66.5</td>
<td>67.8</td>
<td>71.2</td>
<td>69.7</td>
<td>54.9</td>
<td>38.6</td>
<td>31.3</td>
<td>62.9</td>
</tr>
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</table>

1953 is omitted, as the decentralised system of investment financing had not then been established.

Table 2-4
Annual Percentage Change in Total Investment in Kosmet, 1954-64.

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>1954-64</td>
<td>8.8</td>
<td>-10.4</td>
<td>23.2</td>
<td>39.0</td>
<td>35.0</td>
<td>53.9</td>
<td>19.8</td>
<td>18.0</td>
<td>-2.5</td>
<td>-4.4</td>
<td>14.3</td>
</tr>
</tbody>
</table>
level of investment there, observed for 1947-52, discounts much impact from the changes of 1954-56, but the very substantial increase in each of the years 1957, 1958 and 1959, to a level more than sustained until the end of the period, strongly suggests considerable assistance from outside in the latter part of the period.

Through the various instruments at its disposal, therefore, the federation made a substantial volume of investment funds available to the underdeveloped regions, probably least in Bosnia-Hercegovina, and only latterly in Kosmet.

However, although the regional allocation of investment intended by the planners could have been secured through the general instruments of the investment system, without special provisions, and although the special measures themselves were not entirely separable from general planned investments, the guaranteed investments and similar measures were advantageous both to the planners and to the recipient regions.

From the planners' point of view, the planned allocations to the underdeveloped regions exempted these funds from the process of negotiation and bargaining involved in securing a particular regional allocation, thus simplifying their task. From the point of view of the regions, a minimum volume of funds was guaranteed, and its amount (when long-term planning was effective) known for some time ahead, thus allowing longer-term planning at the regional level. The special measures of assistance served as a political guarantee to the underdeveloped regions, and as a convenience in securing a distribution of investment funds which, given the institutional framework, could have been secured without them.

1. Table 1-6, p. 50.
National Development and the Underdeveloped Regions

The development of the backward regions, implemented partly within the system of planned development for the country as a whole and partly through special measures, was particularly vulnerable to the weaknesses in coordination already observed in regional planning in general. Both of the later Five-Year Plans, for 1957-61 and 1961-65, declared their objective of promoting the more rapid growth of the underdeveloped regions, but without specifying how much more rapid than in the rest of the country, or any timetable for the achievement of convergence. As late as during the discussions on the draft of the abortive Seven-Year Plan for 1964-70, Miljovski (1963, p. 672) was voicing strong criticism of the imprecision of plan formulations:

'The Plan texts do not give us the answers to several fundamental questions:

1. They do not propose a desired relationship between the levels of economic development of the developed and less developed regions, although this is an exceptionally important question, both for economic reasons and because of the socialist relations within our country...

2. They do not propose a time-horizon, a period within which this relationship, sought after, economically rational and socially desirable as it is, is to be achieved.

3. They do not suggest the rate of growth necessary to begin the process of undermining and narrowing the differences.'

Any Plan targets for the growth of total output would not themselves have been directly implemented under the system of planning by global proportions, where they served only as the final objectives, the intended results of the operational objectives for investment. More detailed elaboration would, however, have helped to substantiate the degree of consistency among the various growth objectives, and between them and the resources available. But in practice the declared growth objective for the underdeveloped regions and the various allocations of investment funds appear to have been only loosely coordinated, the
latter being determined as much by a process of political decision-making
as by detailed economic calculation. As Miliovski (1963b, p.673) again
observed, relative to the Seven-Year Plan but with equal applicability
to its predecessors:

'In the proposed texts, too much space is devoted to means,
measures and instruments, to the techniques of financing. This
work appears to have been to no purpose... (These various measures)
are interesting, but quite ineffective, as long as it is not
established what is the target date for achieving an economically
and socially rational relationship between the developed and
underdeveloped regions, what is the rate of growth which must be
secured to realise this relationship, and what level of investment
is necessary, as a consequence of the desired rate of growth...
The weaknesses which have just been indicated are not weaknesses
in the techniques of financing, but consequences of the lack of
clear presentation of the time-horizon, the rates of growth, and
the level of investment in the underdeveloped regions'.
3. APPROACHES TO REGIONAL DEVELOPMENT

Western studies of regional growth, at the theoretical level, are often concerned to explain the causal mechanism involved, on the assumption of the more or less free operation of economic forces. Leading examples of regional growth theories on this pattern include the model of cumulative divergence suggested by Myrdal (1957), the 'export base' theory of North (1955) and Andrews (1953), (1956), and the more complex model, based on exports and labour migration, by Borts and Stein (1964). Yugoslav economists, however, concerned with a planned, and not a free market, economy, and with changing the regional situation rather than anticipating its evolution, direct their extensive writing on regional development almost exclusively towards deriving guidelines and techniques for policy-making.

These will be treated under the two heads of 'growth strategies' and 'locational strategies', although, for the purposes of practical decision-making, the two obviously cannot be strictly separated in this way, and even in the discussion points of overlap will occur. The growth strategies will cover the sectoral aspects of development, in particular the related questions of priority sectors and choice of techniques, while the locational strategies will deal with the territorial aspects, the geographical concentration or dispersion of development, and population migration. The sectoral aspect gains particular importance in Yugoslav development planning, not only from its formal position in the second global proportion, but because the limited comparability, between sectors, of the rate of return on investment, and the rigidity of the sectoral allocation of investment funds tended to make the sector a discrete entity. The friction of distance, and the immobility of certain resources, on the other hand, constitute one of the special
characteristics of regional economics.

(i) Growth Strategies

The Build-up of the Basic Industries, 1947-56

As has already been observed (Chapter 1 (iii)), the first approach, introduced in the early Five-Year Plan of 1947-52 and continued under its successor, the Key Investment Programme, until 1956, treated the development of the backward regions in precisely the same way as the development of the economy as a whole; the key to progress was to be industrialisation. A detailed justification for industrialisation is given by Čobeljić (1959, pp. 55-56):

'1. The greatest opportunity in the development of underdeveloped areas is offered by the exploitation of the great difference in productivity which exists between industry and agriculture. In underdeveloped countries real income per head is commonly three times less in agriculture than in non-agricultural activities. This difference reveals the full importance of industrial development and a change in the economic structure. The transfer of population into industry and an urban economy brings a major increase in average national productivity. In this way underdeveloped countries achieve the most rapid increase in income in total and per head of the population...

2. In underdeveloped countries, where more than two-thirds of the population and labour-force are employed in agriculture, improving agricultural production is impracticable without the rapid development of industry... The development of industry reduces the agricultural population absolutely and relatively. This brings an increase in average productivity within agriculture and simultaneously establishes the conditions for its mechanisation... On the other hand, by increasing the real income of the urban population, the development of industry creates an internal market capable of stimulating the intensification of production in agriculture'.

The Plan revealed its Marxist intellectual forebears in the priority not only of industrialisation, but of the development of 'Sector I', the basic industries producing capital equipment and industrial materials:

'The fundamental reason why economic development must be conducted with the more rapid growth of Sector I is that this
Sector must continually provide an ever greater volume of capital equipment for extended reproduction. In underdeveloped countries the shortage of capital equipment is the principal limiting factor in economic development. For such countries it can therefore be said that their economic progress depends above all on the rate of growth of investment in the means of production produced by Sector I. As long as underdeveloped countries contain large reserves of unutilised labour... the increased production of the means of production and particularly of equipment is far more decisive for the speed of economic growth in this initial phase. Only in a later phase must the structure of investment be increasingly varied and coordinated, that is, increasingly including products from Sector II.

'It is impossible to envisage economic development where the construction of transport, the installation of larger energy units, the mechanisation of agriculture, the establishment of light industry and so forth depended exclusively on the import of foreign equipment'.

(Čobeljić (1959, pp.59, 61))

The dominance of this sectoral approach to development, in the priority of the basic industries, left little scope for a specifically regional component. As Todorović (1962, p.103) points out 'an underdeveloped region is included in this process only to the extent that it contributes to the acceleration of, or at least does not reduce, the over-all rate of growth', and development must, therefore, during this initial phase, be restricted to 'certain underdeveloped areas, which offer the conditions suitable to national economic development'.

Čobeljić (1959, pp.111-120), in discussing the choice of the level of technology for industrial development, recognises the limitation imposed by the necessary capital-intensity of many of the basic industries, but also points to other extensive areas of investment, where a greater choice of techniques is available. He particularly emphasises the opportunity for deliberate regional variation of factor proportions:

'The very fact of the existence of large differences in the level of development among individual regions supports the varied treatment of factor proportions from one region to another. In
the underdeveloped regions of Yugoslavia, which are characterised by the greatest population pressure, the widespread mobilisation of unutilised reserves of labour in small-scale industry, the building of communications, the implementation of various local investment projects etc. can be very useful, since in this way definite initial impulses to development are relatively cheaply obtained. But even when larger investment projects are being undertaken in regions such as these, their implementation should be effected with less technology and greater use of labour. In other words, it is possible to adopt different factor proportions, by region, even within the same sectors of production, since in a large number of sectors the same product can be produced at different levels of technology'.

(Čobeljić (1959, pp.118-119)).

This dogmatic emphasis on the build-up of the basic industries, and the subordination of other objectives to it (which can be paralleled in the development policies of a number of less developed countries, not only in Eastern Europe), resulted in scant attention to the detailed application of the economic criteria of costs and social returns, and a consequent disregard of other, sometimes more favourable, investment opportunities. Stojanović (1962, p.53) is harshly critical of the 'irrationality' of the policy:

'This exceptionally strong emphasis on heavy industry in the first years of socialist industrialisation, particularly in underdeveloped countries, where a scarcity of investment funds causes rather one-sided investment in the basic industries of Sector I, has a strong tendency to smother the consideration of rationality and severely limit the optimal combination of factors of production. The rapid change in the structure of investment so occupies economic policy that the attention given to the sectoral division of labour far exceeds that to the territorial division of labour, which is thus condemned to be an appendage to the former'.

Development on a Broader Front, 1957-64

This initial phase of development was regarded as successfully completed, under the Key Investment Programme, by 1956, and the new Five-Year Plan for 1957-61 marked the inauguration of a strategy of development on a broader front. For the country as a whole it emphasised the importance of bringing into full use the capacity,
largely in the basic industries, installed in the preceding years, and extending growth into the consumer industries, particularly agriculture and manufacturing industry. It did not, however, set out a sectoral pattern of development for the underdeveloped regions, either individually or as a group, but merely urged 'the optimal utilisation of the available productive forces and development opportunities in economically underdeveloped areas' (Plan (1957-61, chap. viii)). Its successor, the Plan for 1961-65 (chap. viii) similarly outlined the general orientation of development in terms of 'the greatest possible utilisation of material and human potential', but then more specifically that

'the basic method for the development of the underdeveloped regions is the more rapid and intensive introduction of industry there, particularly in cases where suitable raw material resources for this are present'.

Industrialisation, as the later Plan particularly indicated, continued to be regarded as the principal means to development; there was widespread support, sometimes less articulately expressed, for the double reason given by Čobeljić (1959, pp.55-56), that its high level of output per worker offered the best solution to the problem of general low productivity, and that, by reducing agricultural overpopulation, it made a necessary prior contribution to the long-term improvement of agriculture. The broader front for development as a whole made available a much wider range of sectoral strategies, while the very general terms of the Plan formulations left great scope for variation in the individual strategies proposed.

Mihailović (1963, pp.607-610) suggests that the growth objective

L. A detailed discussion of sectoral differences in output per worker is given by Miodrag Nikolić (1965); like Čobeljić, he uses average productivity of labour as his measure, the concept of marginal productivity, more strictly relevant to the reallocation of workers among sectors, being seldom applied by Yugoslav economists.
for the underdeveloped regions will follow a rather different formulation than for the more developed regions. The Yugoslav economy, he maintains, is in fact two economies, characterised by different structures and different proportions in factor supplies - regional constellations which require two separate concepts of development; for the backward regions, the emphasis will be on the expansion of employment, new investment and the growth of total output, to give 'the change in the structure of the economy and population, the intensification of industrialisation, and the activation of their natural resources and underemployed labour', while the more developed regions will be concerned to increase average productivity through the introduction of new techniques, rather than through the creation of new employment. In terms of the 'structural' and 'productivity' aspects of underdevelopment, the backward regions will seek growth to a greater extent through a structural shift in their employment patterns, while the more developed regions will concentrate on higher individual productivity.

The contribution to the development of the underdeveloped regions to be derived from the structural shift in employment, independently of the introduction of more advanced technology, is emphasised, in slightly differing ways, by several writers. Miljovski (1962) distinguishes three types of sector (a) those where the greatest possible use is made of existing equipment, thus maximising employment with a low level of capital per worker (b) those using an intermediate level of technology, old equipment being superseded by domestically produced replacements and (c) those equipped with the most advanced technology available internationally. The sectors of category (a) cannot, because of their low level of technology, serve as engines of growth in the long-run, when
development will consist in the shift of employment from it into sectors in the other categories, but the shortage of capital, including imported equipment, and the abundance of underemployed labour give all three categories an essential role in development, the industries of category (a) making their contribution to higher average productivity of labour by absorbing unemployed or underemployed labour from agriculture.

Todorović (1962, pp.112-115) similarly distinguishes between industrialisation as 'the basic method of economic development', through the establishment of large-scale industry linking the regional with the national economy, and industrialisation as 'the general method of development', based on small-scale industry and treating the region as 'an economic complex within its own economic space'. These two approaches, he emphasises, are not mutually exclusive, but rather interdependent, as different aspects of the process of industrialisation.

The line of recommendation which receives much the greatest support is thus the promotion of a sectoral shift in the pattern of output and employment principally, as laid down in the Plan guidelines, through the expansion of industry. The Plan for 1957-61 (Part V, chap. xiv), however, made the improvement of agriculture a priority for the country as a whole, and specified this particularly for Macedonia and Kosmet. Srebrić (1964, p.321) supports this, pointing out that the regional differences in the level of output originate not only in differences in the amount of industry in each region, but in the quality of agriculture. In general, however, the improvement of agriculture is little favoured as a means to development for the backward regions of Yugoslavia, at least in the initial phase. The conclusion of Todorović (1962, p.112) is typical:
'Even the limited intensification of agriculture increases still further the number of working hands which cannot be productively employed. This brings an even greater sub-division of holdings, which still further reduces the opportunity for developing regional production and production in the economy as a whole.'

The improvement of transport facilities also commonly occupies a low place among development priorities, more direct measures to increase the level of output being preferred to a longer-term programme of creating external economies through the provision of transport facilities for future use. Miodrag Jelić (1965, p.36) points out that the creation of infrastructure does not of itself bring development, and may even give rise to a colonial type of economy. Aleksić (1962, pp.279-293) is one of the few to emphasise the necessity of adequate transport facilities if the subsistence economy in the underdeveloped regions is to be superseded by production for the market, as through the sale of agricultural products in urban markets and, more generally, the integration of these regions into the national market.

While these considerations set the general guidelines, it is recognised that development strategies must be devised, both in the selection of priority sectors and of the factor proportions and level of technology to apply, for each region according to its individual situation; Stojanović (1962, pp.59-60) particularly stresses that the impact of a development strategy must be appraised in full, including its various indirect effects:

'Starting from the principle of maximum efficiency in the use of the factors of production, and therefore that their optimal combination can vary by region with the availability of the material pre-conditions for certain particular sectors, we must treat the question of the choice of priority sectors in concrete situations...

In estimating the importance of an individual sector for a region as a whole, it is not sufficient to consider what proportion of total regional product it provides, but it is very important to know how many people it employs, how far it succeeds in integrating
the region with other regions, how it links various sectors within the region itself, that is, how, in total, it utilises the factors of production from within that economic area...

In view of this great importance of the relationship between the input of factors of production from a given economic region and the size of its output, we believe that an input-output table with regional divisions is of as much importance as a table by sector.

But regional input-output analysis was far from being an operational technique in Yugoslavia, although exploratory work had begun. Horvat (1962) makes an experimental contribution with a two-region, two-sector table (for the developed and underdeveloped regions, and for industry and 'other' activities), but concludes that further development must await the improved availability of data. Exploratory efforts are continuing in Zagreb, focussed on the compilation of a table for Croatia for 1962; some of the initial theoretical issues encountered and their treatment are described by Rajković (1965).

But, although formal tables and precise coefficients were not available, regional planners were not entirely deprived of this powerful tool. Within the period, national tables were compiled for 1955 and 1958, and a table for 1962 was completed in 1966; these provided technical coefficients for up to 93 product-groups, but the applicability of national coefficients to the underdeveloped regions was severely limited by the different technological eras to which the regional groups in general belonged, and further by the heightened aggregation problem arising from the small size of many sectors in the underdeveloped regions. Ad hoc or unformalised use was, however, often made of the input-output form of analysis in sectoral planning at the level of the region, particularly in the application of 'material balances', a planning technique commonly applied in Yugoslavia, with which input-
output analysis has close affinities. 1.

Similarly, no formal use was made in Yugoslav regional planning of
the other leading techniques which have been devised for regional
analysis: 2. linear programming developed by, among others, Leven (1964),
Johansen (1967) and Boudeville (1961), (1966), and applied in other
planned economies as a method of securing consistency between regional
objectives and available resources, and the regional income and employment
multipliers, described by Isard (1960) and applied by Archibald (1967),
tracing the total change to result from an initial increase in regional
investment or exports. But, as with input-output analysis, while the
techniques were not formalised, some empirical approximations of at
least the larger and more direct effects were normally estimated along
these lines.

Market Areas

These suggested guide-lines for sectoral planning concentrate
heavily on production possibilities, while demand factors, such as the
size, growth and geographical location of the market for expanded
regional production receive, for the most part, only implicit treatment.

Stojanović (1963a, p.684), for example, obviously has in mind
production for the national market of products with a high income-
elasticity of intermediate or final demand when she proposes to link the
development of the underdeveloped regions with the growth of key sectors
of the national economy, through the division of the country into

1. The application of this technique in Yugoslavia is described briefly in
   Sirotković (1961, part III, chap.II), and more fully for other
   Eastern European countries by Montias (1959) and Balassa (1959).
2. A relatively recent survey of the main lines of development in
   Western literature on regional economics is given by Meyer (1963).
economic regions adapted to the sectoral pattern of development and, consequently, not necessarily coincident with the Republics:

'The economic regionalisation of Yugoslavia would be of great significance for the development of underdeveloped areas. Once these areas were included, according to the availability and composition of their factors of production, in the appropriate regions, with a suitable specialisation in production established in one, or several, sectors essential to the further development of the country as a whole, then the development of these areas would actually be covered in the development of some of the key sectors of production'.

Similarly, the two methods of industrialisation which Todorović (1962, pp.112-114) urges as complementary, through the establishment of large-scale industry linking the regional with the national economy, and through small-scale industry treating the region as an economic complex within itself, can be construed as production for the national and local markets respectively.

The attention paid in Western literature on regional economics to demand factors has originated in the recognition of inter-regional trade as the corollary of specialisation in production. The most elaborate formal statement of this interdependence is given by Isard (1956), and its leading development has been through the concept of regional exports in the export-base theories of regional growth. In the formulation given by North (1955), the growth of a region derives from the expansion of output, for markets beyond the region, of products in which it has an advantage in 'relative costs of production', the expansion of local or 'residentiary' activities then following through the operation of the regional income multiplier. While in many of the historical examples which he quotes, the growth of regional exports derived directly from favourable natural resource endowments, North is explicit that products from primary, secondary or tertiary activities may constitute the
A more detailed discussion of the many factors which may give rise to the 'comparative cost' advantage necessary for the emergence of regional export sectors is given by Isard (1960, chap. 7). Conversely, the findings of Chenery (1960) on the importance of import-substitution as a source of industrial growth, based on the analysis of up to 63 underdeveloped countries in the 1950's, are highly suggestive for the organisation of development in backward regions. This evidence is particularly significant in that it substantiates the criticism commonly made against the export-base theory, for example by Tiebout (1956) in reply to North (1955) that concentration on exports neglects the contribution of autonomous internal changes or 'bootstraps' development.

Klaassen (1967, p.31, footnote), in his discussion of methods of selecting industries for depressed areas in more developed economies, uses the same, rather ambiguous, terminology as Todorović, but redefines a 'basic' industry in order to take account of the symmetry between the expansion of regional exports and import-substitution:

'A basic industry is defined as an industry that is able to export outside the area. This definition implies that not only firms exporting to other areas but also firms replacing imports are considered basic... It follows from this definition that a method which seeks to determine the extent of basic activities by estimating exports is inappropriate... It might be that this work (Isard (1960)) does not give the import substituting activities the attention they deserve. In the above definition, which seems to be the most rational one, they are treated symmetrically with export activities'.

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1. The concepts of comparative costs, comparative advantage and relative costs applied by North and Isard refer to an absolute advantage in lower costs of production, including transfer costs, and not to the Ricardian principle of comparative advantage applied in international trade theory.

2. Quoted on p.137 above.

3. This distinction between 'tradeable' and 'non-tradeable' goods is also fundamental to the method of semi-input-output analysis, currently being developed in the Netherlands, which can be applied to either the national or the regional economy.
Three potential sources of demand for increased regional output thus present themselves: the growth of local demand, regional exports and import substitution. The two most favorable, and by no means mutually exclusive, conditions for individual sectors to offer good growth prospects are, therefore, a high income-elasticity of either final or intermediate demand, and an advantage in 'comparative costs' which will enable regional products to expand in the national market or to replace former imports in the local market; since local-based industries have the natural locational advantage of proximity in the regional market, import-substitution will commonly require a less pronounced advantage in other respects than the growth of regional exports.

The opportunity for regional exports offers the additional advantage of allowing greater flexibility in the selection of an industry mix appropriate to the region's factor endowments, when factor-substitution, which can be assumed to be limited for each industry by technical conditions, would otherwise be restricted by the industry mix required by the pattern of local demand. Lutz (1962, p.16) designates this 'indirect' factor substitution, by comparison with direct substitution in the choice of production techniques for an individual industry.

The role of regional imports, on the other hand, is crucial to the total effect of a development programme, in that 'leakages' of demand, through import, for inputs for further production and in final expenditure from incremental incomes, limit the extent of indirect effects and the multiplier process; as Chenery (1962) has found in Southern Italy, an adverse supply position, giving rise to the rapid growth of regional imports may to a considerable extent offset the gains from external assistance.

The relative neglect of demand factors in Yugoslav discussions may
be attributable to the administrative allocation of investment funds and the prevalence of subsidies and interventions in pricing, all of which tended to blur or distort market criteria; but whatever the cause, the more explicit treatment particularly of the intended market for increased regional production could provide useful guide-lines to the process of development and the mechanism for 'building Yugoslavia as an economic whole'.

The Functional Classification of Sectors

A major difficulty encountered in regional analysis is that of assigning individual sectors and products to the various analytical categories. The Yugoslav industrial classifications are particularly ill-adapted to this, being defined largely on a 'product' basis, irrespective of the stage of production or type of market of the product. Even the twenty-seven sector classification used here, much finer than any previously applied to the Yugoslav regions, is often still too highly aggregated to allow accurate assignment, unless supplemented by information derived locally.

The most labour-intensive sectors in Yugoslavia in 1964 were construction, and the timber, footwear and textile industries: electrical industries, metal manufactures, coal and food-processing were also

1. The degree of labour-intensity of an industry can be measured by the ratio of either capital stock or total output to the labour force; labour intensity will be applied only to the former measure, the latter being described with reference to either labour productivity or output per worker.

2. Figures on the value of fixed assets per worker in the social sector are presented by the Federal Statistical Office in Savezni Zavod za Statistiku: Statistički Godišnjak 1966, Table 106-3. The method of valuation applied to the capital stock figures renders them unsuitable for detailed analysis, but is adequate to indicate the ranking of the various sectors by relative labour-intensity. The compilation of the capital stock figures is described in Appendix 1.
relatively labour-intensive, while the chemical, non-ferrous metal, steel and paper industries were relatively capital-intensive; by far the most capital-intensive were petroleum and electricity, the latter with thirty times the amount of capital per worker applied in construction. But, in any region, a varying product mix and different techniques of production were liable to cause variations in the factor proportions, although the possible range of these were limited by the degree of disaggregation and the sectoral definitions in the former case, and the technical possibilities for factor substitution in the latter.

On the side of labour productivity, output per worker was, as was to be expected from the economic structure of the country, conspicuously low in the private sector of agriculture. Other low-productivity sectors included the timber, food-processing, construction, coal, textile and footwear industries, along with the social sector of agriculture, while the leading high-productivity sectors were petroleum and tobacco (in large part for reasons of taxation), electricity, chemicals and paper. 1. As is to be found in many countries, the ranking of industries by the two measures of 'labour-intensity', capital per worker and output per worker, were thus closely correlated. In output per worker, as in capital per worker, a degree of regional variation occurred, with the differences in product-mix and level of technology, in addition to less easily quantified differences in the qualitative aspects of productivity.

On the locational characteristics of individual industries, their degree of resource- or market-orientation, and the type of market which

1. The relative valuations of output per worker by sector were also affected by the price system, with the result that the valuations quoted, although those which the Yugoslavs themselves chose to apply, are not those which would have been established by the operation of market forces. Detailed figures for output per worker, by sector, are given in Table A-2.
they typically serve, specifically Yugoslav information is very limited. But the work of, among others, Hoover (1948), Florence (1948), (1962), Isard (1953), (1960), Moses (1955) and Perloff, Dunn, Lampard and Muth (1960) provides much useful information — although it must be translated with some caution across national frontiers and between economic systems — to supplement interview and commentary material.

'Resource-based' industries, a category commonly proposed for the underdeveloped regions, comprise pre-eminently national or traded goods: coal, steel, non-ferrous metals, ship-building, forestry, paper and tobacco-growing: some small-scale production in these sectors is possible, but where, as in the steel and paper industries, economies of scale are important, production only for the regional market may not be economically feasible.

Agriculture, electricity and the building material industry also require the availability of suitable natural resources, but both the resources and the markets are normally so widely spread across the national territory that these industries are predominantly local in character.

A further group of strongly local industries comprises construction, commerce, transport and printing, the dispersion on this occasion resulting from their close links with demand, which itself is widely dispersed, and their weak dependence on natural resources.

These categories are open to individual exceptions: national markets for certain agricultural products, national publishing houses, transit transportation, the distribution of electricity across regional boundaries; possibly, indeed, only construction constitutes a 'pure' classification. The results of the various researches cited, however,
clearly confirm the predominant characteristic of the various sectors.

An important group of industries - metal manufactures, electrical equipment, chemicals, textiles, footwear and food-processing - are too heterogeneous to classify without a more detailed definition of their product-composition. 1. Metal manufactures, for example, range from motor vehicle production, where economies of scale are so important that the market must be national, through many types of capital good and component, more or less closely linked in location with producers' demand or the availability of skilled labour, to small metal wares for the local consumer market. The textile industry includes spinning, normally resource-orientated and a national industry, and the clothing trades, often serving only the immediately local market. Footwear may be produced by small-scale or mass-production methods, for village or national market. Isard (1953, p.123), dealing with data for the U.S.A., points out the uselessness of the category 'food-processing industry', comprising as it does the national industries of slaughtering and meat-packing along with the highly local bread and bakery trades, a criticism equally applicable in Yugoslavia, particularly with the growth of a national export trade in meat products.

The concepts of capital- or labour-intensive, high or low productivity resource-based or market-orientated industries, regional exports, import substitutes, and local and national goods can thus do much to clarify regional growth patterns, but they must be applied not only on the basis of the general characteristics of the individual sectors at the national level or in other economies, but also of more detailed information on the industrial structure and development programmes of the individual regions. 

1. The difficulties of assignment, within a 38-industry classification, from the data for U.S. industry, are demonstrated by Isard (1953).
(ii) **Locational Strategies**

Locational decisions on the siting of new projects were, in principle, in Yugoslavia based on wider calculations than the cost and revenue considerations motivating the profit-seeking firm in a private enterprise economy. Social review, as part of the process of allocating investment funds, was intended to allow explicit treatment of the full external effects of a new project, its social costs and benefits, in a wider context than could be applied by the individual enterprise or even, often, by the commune. Two broad categories of locational policy had to be implemented through the decisions on individual projects: policy on the distribution of economic activity across the entire national territory, on which the objective of development of the underdeveloped regions implied a certain prior commitment, and policy concerning the degree of more local concentration or dispersion of development, with its implications for urbanisation.

The policy of development of basic industry, applied in the early years, raised few problems of location under either head; the mining of coal, iron and non-ferrous ores, and the generation of hydro- and thermal electricity, are all strongly resource-orientated industries, their location largely determined by the geographical position of natural resources. Projects sited in the underdeveloped regions as a direct consequence of the implementation of this policy at the national level included the exploitation of the coal and iron-ore fields of central Bosnia, the lead deposits of Kosmet at Trepča, and the rivers of Bosnia-Hercegovina, Montenegro and Macedonia. But, with the broadening of development strategy from 1957, and particularly the new emphasis on manufacturing industries, many of which are market-orientated or 'foot-
loose', the spatial distribution of new projects had to receive explicit
treatment.

The Zoning of Development

The underdeveloped regions were scheduled for development assistance
on the basis of their existing degree of underdevelopment, a criterion
which, as many writers came to point out, did not yield the appropriate
regionalisation for development policy. Srebrić (1964, p.314), for
example, criticises the 'weak economic content' of the delineation of
'zones of underdevelopment' with reference to past development, when
regionalisation should be concerned with the future economy. Čolanović,
who in one place describes the natural resources of the underdeveloped
regions as of 'general national significance', such that they
'imperatively call for intensive development', is equally critical of
the scheduling for ignoring development prospects:

'To apply the regime of intervention to the entire area of the
backward regions in extenso is not the best solution. It is
entirely clear that certain areas lack the more serious conditions
for stronger industrialisation, with the result that their inclusion
complicates the whole problem of the emancipation (of the backward
regions).'

(Čolanović (1962, p.159)).

Mladenović (1962) and Stojanović (1963a) both urge the advisability
of the 'economic regionalisation' of Yugoslavia, into units appropriate
to the organisation of economic development and not necessarily delimited
by either the existing political units or the designated underdeveloped
regions; both list, in general terms, the factors affecting the
suitability of an individual area for development: its natural resources,
access to transportation, existing capacity, the quality of its labour

1. Čolanović (1966, pp.39-40); the fuller quotation is given on p.23.
force and social services, and its gravitational influence on other areas. Mihailović (1962, pp.35-47) takes the widest perspective, and puts forward the most specific guidelines for regional policy. He prefers to treat the 'regional aspect of development' at the national level, as the wider problem of which the underdeveloped regions are part, and applies similar criteria in his selection of national priority zones for development: access to transport facilities, the existing degree of concentration of population, particularly in smaller towns, and resource endowments favorable to both agriculture and industry, and recommends, as the national spatial strategy, the concentration of development particularly in the basins of rivers Sava, Danube, Morava and Vardar. This delineation, ignoring the existing level of output per head and giving possibly greatest weight to natural lines of communication, cuts across the official division between the more developed and underdeveloped regions, by including major areas from both.

Elsewhere (Mihailović (1965, pp.568-574)) he reconciles this selection of priority zones with the objective of equality, itself one of the motivations to the development of the backward regions; when equality is interpreted in its dynamic connotation as 'the process of establishing equal conditions for all social and economic groups' and 'affecting people, not territory', the selection of priority regions, by contributing to maximum growth and thus greater opportunities, can be seen as a means towards equalisation.

Industrial Centres

The progressive evolution of the concept of priority zones for development was accompanied by an increasing realisation of the role of industrial centres as foci for development: Čolanović (1962, p.159)
observes that 'development of itself seeks centres' and 'rational intervention concentrates on particular foci for industrialisation, which gain the function of gravitational centres'.

The Plan for 1957-61 (chap. viii, para.1) gave an official lead in this direction by specifying that

'it is necessary to make possible the full activation of productive forces and their more intensive utilisation in towns and industrial centres where there exists a relatively large concentration of economic enterprises and various social institutions'.

Its successor, however, was severely criticised for impeding this; the new classification of underdeveloped regions, extending the coverage to individual districts and communes in Serbia Proper, Bosnia-Hercegovina and Croatia, in addition to the entire regions of Macedonia, Montenegro and Kosmet, was based, according to Srebric (1963, pp.686-690) on the principle of 'homogeneity', in their common characteristic of under-development, while the dynamic aspect of development involved the 'gravitational pull' of development centres. He was particularly critical of its adverse effect in Serbia Proper, where the boundary of the underdeveloped areas was drawn to by-pass such towns as Titovo Užice, Požega, Čačak, Kraljevo, Kruševac, Niš and Zaječar; thus

'the existing economic centres, which must bring a large part of the economic development of the underdeveloped areas in the south of the Republic of Serbia, are simply excluded. This role has had to be transferred to small mountain villages which do not possess the elementary preconditions for the agglomeration of non-agricultural activities and population'.

The concept of industrial centres, or 'poles of growth', the term introduced by Perroux (1955) which has passed into general usage, has considerable intuitive appeal, but the elements involved prove remarkably difficult to quantify, sometimes even to define, with sufficient precision for planning purposes. As Srebric (1963, p.686)
points out, 'even the smallest town exerts an economic gravitational pull, since it is a centre for its immediate agricultural hinterland', but he then goes on to criticise the excessive territorial dispersion of the development efforts in Yugoslavia.

Perroux acknowledges his heavy borrowing, for the concept of poles of growth, from the elaboration of external economics given by Scitovsky (1954). Scitovsky distinguishes two kinds of externalities, 'technological external economies', which arise from the direct interdependence of producers, and 'pecuniary external economies', from interdependence through the market mechanism. Cases of technological interdependence are relatively rare; one of the few clear instances is mentioned by Srebrić (1963, p.689): 'the interdependence of locations in the utilisation of skilled constructional and organisational personnel finds the strongest economic justification', and he instances related projects in the processing of agricultural products. Pecuniary economies, on the other hand, are described by Scitovsky as 'all-pervading':

'Investment in an industry leads to an expansion of its capacity and may thus lower the prices of its products and raise the prices of the factors used by it. The lowering of product prices benefits the users of these products; the raising of factor prices benefits the suppliers of the factors. When these benefits accrue to firms in the form of profits, they are pecuniary external economies... According to the theory of industrialisation, these benefits, being genuine benefits, should be explicitly taken into account when investment decisions are made; and it is usually suggested that this should be done by taking as the maximand not profits alone but the sum of the profits yielded and the pecuniary external economies created by the investment'. (Scitovsky (1954, p.147)

1. Scitovsky's further point, that the profitability of an individual investment may not be an accurate indicator of its social desirability, could come from a Yugoslav pen: 'Market prices reflect the economic situation as it is and not as it will be. For this reason, they are more useful for coordinating current production decisions, which are immediately effective and guided by short-run considerations, than they are for coordinating investment decisions and - looking ahead to a long future period - should be governed not by what the present economic situation is but by what the future economic situation is expected to be'. 
While the Yugoslav investment system as a whole was designed to take into account all forms of external effect, the importance of the economies specifically of agglomeration is underlined by Srebrić (1963, pp.688-689) and Mihailović (1965, p.572).

The other principal source of economies from the concentration of development into centres is in the provision of infrastructure, particularly transportation, where the indivisibility of many facilities requires a minimum scale of provision. Miodrag Jelić (1965, pp.27-28) gives the greatest prominence to this aspect, pointing out that, if investment in infrastructure is to yield an adequate return, facilities must be utilised to a sufficient extent and within a short space of time, and thus that the efficient use of infrastructure imposes a minimum size for development centres.

Mihailović (1965, p.572) sums up the case against the dispersion of development:

'Spreading relatively scarce investment resources widely has two mutually related consequences. Firstly, the potential of the priority regions, which demands, for effective mobilisation, the concentration of investment, is inevitably neglected. Secondly, the opportunity for coordinated investment (in production, infrastructure and the social services) is lost, along with the benefits of cumulative effects'.

But the planners faced the quantitative problem of how many development centres to promote and of what sizes, and on this no general conception emerges in the Yugoslav literature. In particular, no explicit use is made of the considerable volume of empirical evidence on regularities in the size-distribution of cities, associated with the work of Berry (1961) and many others, and recently applied to regional planning in the Netherlands. This could give, at best, only an approximate indication, since the relationship between the number of
cities and their size is, in general, much less close for less developed than developed countries, and, further, the detailed work of Ivković-Ivandekić (1961) shows that, in spite of the rapid rate of urbanisation in the post-war years, Yugoslavia remains under-urbanised by comparison with the normal level for a country at that stage of development. Stojanović (1962, p.52) however, rejects even the appropriateness of seeking a general treatment of the question:

'Of course, there does not exist, for all cases, any common optimum size of city or town. Each town requires its appropriate hinterland, centres of supply and so forth, which has the direct implication that each region has its optimum size of settlement'.

The very limited extent of the guidance available to planners from urbanisation theory is summed up by the Economic Commission for Europe (1965, p.11):

'Urbanisation theory should provide a set of principles which could give some guidance to the optimum pattern of town development, but, up to now, these have not been forthcoming, with the result that the assimilation of urbanisation policy in the framework of regional or national policies and planning is, at the moment, difficult'.

Migration

The converse of a policy of concentration of development into priority zones and industrial centres is the migration of population, out of the areas lacking long-run economic prospects into the priority zones, and from the countryside into the towns. The role of both types of migration in the process of development is well recognised in Yugoslavia. Srebić (1965, p.673) observes that:

'The process of equalising the level of development within the economy cannot be based on the current territorial distribution of the population. The existing relations are the result of past economic development. They were appropriate to a relatively underdeveloped economy and a restricted economic structure of the population, with excessive importance of small-scale production in agriculture. A long-run tendency to base future
regional development on a stationary population pattern would be economically untenable'.

Mihailović (1962, p.33) describes the territorial structure of the economy and of the population as 'two aspects of one and the same question, the allocation of economic activity and population', and elsewhere (Mihailović (1965, p.573)) he describes population migration as 'the solution to the contradiction' between the objective of equality and the selection of priority zones.

But population migration, and particularly urbanisation, make heavy demands for non-productive investment, in housing and social overhead capital, these demands, moreover, being added to the acute deficiency which Yugoslavia had inherited as a consequence of the War and which the years of concentration on the build-up of the basic industries had done little to alleviate. The allocation of funds for non-productive investment was, however, part of the pre-allocation by the planners under the first two global proportions, the criteria for the size of allocation, as for the level of total investment, receiving little discussion.

Two partial solutions to the dilemma that investment requirements, particularly for housing, tended to offset the economies resulting from agglomeration, did emerge in practice, although neither was explicitly accepted as official policy for economising in non-productive investment. The daily commuting of workers from the countryside, where they continued to live on farms and in villages, to work in the towns allowed industrial agglomeration to proceed ahead of the urbanisation of the population. This daily movement became very substantial in the case of the new industrial centres which grew up in the 1950's, as is described by Čika and Stevanović (1957) and in Savazni Zavod za Statistiku: Statistički Bilten 101, and, from the point of view of its impact on the peasant way
of life, in Hoffman (1959). This growth of commuting tended to be rather frowned upon by the authorities and by enterprise managements for its adverse effects on worker efficiency, even although, in addition to substituting, in the short-run, for non-productive investment, it also served to facilitate urbanisation in the longer-term, by enabling rural workers to be drawn into industrial employment without having immediately to sever their connections with the countryside.

An alternative, and much less common, development, described by Macura (1958) in his detailed study of Yugoslav population characteristics, closely resembled the 'putting-out' system of the textile industry in the era before the Industrial Revolution. He cites, as a particularly striking example, 'Obod', the light engineering industry based on Cetinje (in Montenegro), which made extensive use of the completion of semi-fabricated parts by workers living at home, in the surrounding villages: this process of taking the work to the workers, he points out, economised not only in 'secondary' (non-productive) investment, but even in 'primary' investment in the enterprise itself, although this latter point is largely dependent for its validity on the restriction of the Yugoslav definition of investment to fixed assets only, and the normal exclusion of the stocks and working capital which become an important category of 'investment' under a 'putting-out' system.

But population migration, although so readily accepted as an integral part of the process of development, has the major limitation that it is not controllable as an instrument of economic policy comparable to investment. Sponsorship schemes, arranging the transfer of workers to jobs in new locations, may help to encourage, and housing shortage to check, migration, but it is essentially a spontaneous process, only
loosely responsive to economic stimuli, which may precede, or fail to keep pace with, development. Although a key variable in development, the migration of population is, to only a very limited extent, a policy variable.

Yugoslav planners and economists thus held no single unified strategy of development which they sought to apply to the underdeveloped regions, but rather a set of guidelines on the major issues of policy which had to be faced. These issues required complex analysis and detailed local information; the familiar 'development' decisions on the sectoral pattern of growth and the choice of technology had to include the regional dimension that production from the underdeveloped regions faced competition, in the national and local markets, from output from the more developed parts of the country; locational questions, a traditional area of regional economics, involved not simply profit-maximisation for the individual enterprise but the maximisation of the social return on investment. Certain of the techniques devised in various countries, for regional analysis, were applied: the comparative-cost appraisal of location, the assessment of external effects, and regional input-output analysis (only in an entirely unformalised way), although inter-regional flows received little explicit treatment. But, within these general guidelines, much detailed decision-making remained for the planners before any individual strategy was implemented.
4. GROWTH IN THE UNDERDEVELOPED REGIONS, 1953-64

(i) The Regional Groups: A Widening Gap

Development policy for the underdeveloped regions certainly comprised deeds as well as words. With investment serving as the principal instrument of development policy, the many opportunities afforded by the economic system for implementing the planned allocation of investment funds were utilised to secure very high levels of investment in the underdeveloped regions. Investment in the underdeveloped group, total investment, gross productive and net productive investment, each represented a much larger proportion of total output than in the more developed group. (Table 4-1).

Not only was this the case for each of the underdeveloped regions individually, but the investment ratios were in closely inverse relationship to each region's level of development; the poorer the region, the higher its investment ratio. The only significant exception to this - as to other regional regularities in development - was Montenegro, which received an exceptionally high level of investment, total investment there being equivalent to 84.8 per cent of social product, twice its level in the other underdeveloped regions.

But the size of the development efforts in the underdeveloped regions was less impressive in terms of the level of investment per head of the population. (Table 4-2). Measured on this basis, investment in the underdeveloped regions tended to be lower than in the more developed regions, although the variation was substantially less than in social product per head. Indeed, the ranking of the regions, which had been almost reversed in terms of the investment ratio, reverted to approximately

1. All investment figures will be given gross, unless specified as net.
that by level of development. But a notable exception again was
Montenegro, which received almost the highest level of investment per head
of all the regions, 54 per cent above the national average in total and
79 per cent above in productive investment.

Given the regional differences in the level of output per head of
the population, the investment ratio and the index of investment per head
inevitably give differing estimates of the size of the development
efforts in the underdeveloped regions. Each contributes to the appraisal;
the investment ratio is perhaps the more important indicator, being, as
one of the global proportions, a strategic variable for planning, but
measurement on a per capita basis serves as a salutary reminder of the
size of the development task.

But the over-all result of these efforts to eliminate, or even
reduce, the regional disparities in the level of economic development
was one of failure. The rates of growth of social product and national
income 1. in the more developed group slightly exceeded those in the
underdeveloped group, bringing a widening rather than the planned
reduction of the disparities between the richer and poorer parts of the
country. (Table 4-3). Of the underdeveloped regions individually, only
one, Montenegro, the smallest of the four, achieved a rate of growth of
output above that for the more developed group.

This failure in the growth of total output was reinforced by
differences in population growth; all the underdeveloped regions had a
higher rate of population increase than any of the more developed regions,
and for the group as a whole population growth was more than twice as

1. All growth rates are calculated from least-squares trend lines, fitted
in semi-logarithmic form; except where otherwise indicated, they are
quoted as annual percentage increases.
rapid. This converted a deficiency of 0.3 per cent in the annual growth of social product in the underdeveloped group into one of 1.2 per cent in the growth of output per head. Figures 2 and 3 illustrate the growth paths of social product per head in the eight regions. 1.

A mitigating consideration was the substantial improvement, in absolute terms, in the position of the underdeveloped regions; growth rates of 8.1 percent in social product and 7.9 per cent in national income, as averages over a period of twelve years, more than doubled the level of total output in each of the underdeveloped regions, even although their relative positions deteriorated.

Two sectors only, industry and agriculture, from the seven major sectors of the Yugoslav industrial classification, were of predominant importance for the growth of total output. Not only did these two together contribute 70 per cent or more of social product during the period, 2. but they, and industry in particular, had to provide the leading growth sectors, since the other major sectors, transport, commerce, construction and handicrafts, 3. being essentially local industries, largely depended for their growth on expansion originating in industry and agriculture. The growth rates of these major sectors are shown in Table 4-4.

Industrialisation, the spearhead of Yugoslav development policy, was successful to the extent that the growth of industrial output was higher in the underdeveloped group, at 12.6 per cent, against 11.1 per cent in the other regions; moreover, only Kosmet, of the underdeveloped regions

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1. The annual indices of social product per head (Yugoslavia = 100) are given in Table A-1.
2. Sector shares in social product are given in detail in Table A-3.
3. Forestry, the seventh major sector, is here included in industry. The sector classifications are described in Appendix I.
individually, failed to exceed the rate of industrial expansion of the more developed group. But in agriculture, which was expanding at a much lower rate than industry across the country as a whole, the underdeveloped group, with a growth rate of 3.5 per cent, lagged behind the 4.1 per cent achieved by the richer regions. Transport, commerce and construction each expanded at rates corresponding more closely to industry than to agriculture; transport recorded the same growth rate in the two regional groups, (although its growth in the underdeveloped regions derived heavily from Montenegro), but in commerce and construction the underdeveloped regions again lagged. Handicrafts was the only other sector where the underdeveloped regions surpassed the growth rate of the more developed group, but its small size, 4 and 6 per cent respectively of social product in the regional groups, rendered its contribution to growth scarcely significant. As the level of the major sectors, therefore, only industry (and handicrafts) made any contribution towards narrowing the disparities between the regional groups.

The success of the underdeveloped regions in industrial growth was widely based; in thirteen out of twenty industrial sectors they achieved higher growth rates than the more developed regions, and lower rates in only seven. In many sectors, expanding from small beginnings, their growth rates were extremely high. A national pattern of industrial growth was evident, the same sectors, notably electricity, metal manufactures, electrical industries, chemicals and paper, growing rapidly in both regional groups. In addition, several important sectors, steel, textiles and food-processing, expanded rapidly in the underdeveloped regions, while not in the rest of the country. Industrial growth in the

1. The detailed figures on sectoral growth rates, by region, are given in Table A-6.
underdeveloped regions thus derived both from higher rates of expansion in the individual sectors and from a greater range of high-growth sectors.

The policy of reducing the regional disparities in the level of development thus failed on a wide front. Only Montenegro, with a population of under half a million out of more than six million people living in the poorer regions, achieved a faster growth of total output than the more developed regions. The rapid rate of industrial expansion, the sole success achieved by the underdeveloped regions, was insufficient to offset their lagging growth in agriculture, commerce, construction and, in the majority of cases, transport, compounded by their disadvantage in population growth. Thus industrialisation, the centre-piece of development policy, of itself implemented Plan intentions, but proved too weak, alone, to ensure the over-all success of the policy.

Division into Sub-periods

The years 1953-64 however, in spite of their general unity as a period, covered a sequence of sub-periods in institutional development and planning: annual planning 1953-56, the successful Five-Year Plan between 1957 and 1960, and the unsettled years 1961-64 under the later medium-term Plan; year-to-year assistance to the underdeveloped regions was followed by the guaranteed investments and then by the 'Fund'; the early dominance of the basic industries was succeeded by development on a broader front and the difficulties of sectoral bottlenecks. In the national economy, the major reorientation, within these various changes, occurred around 1957, with the return to longer-term planning and the new emphasis on development on a broader front, following the completion of the initial build-up of the basic industries. For the underdeveloped regions also 1957 began a new phase; their development remained
prominence as an objective of national policy, assistance being increased in volume and placed on a more systematic basis.

This change of trend, as it affected the implementation of development, is clearly evident from the level and pattern of investment. In both the developed and underdeveloped regions the investment ratio, which had been tending to decline between 1953 and 1957, after the completion of the Key Investment Programme, then increased from 1958 until almost the end of the period; this increase was particularly pronounced in the underdeveloped regions. (Table 4-5). Agriculture and the consumer industries gained a new importance in the sectoral distribution of investment. (Table A-5). Although the Plan itself was scheduled from 1957 (it was enacted in April of that year), the changes in realised investment, expressing the implementation of the new global proportions, became evident rather from 1958, a time-lag of one year elapsing during which projects already under way were brought to completion and new projects, in accordance with the revised priorities, organised.

The development efforts in the underdeveloped regions varied with the policy changes between these two parts of the period. As a group they had higher investment ratios than the more developed regions in both halves of the period, Montenegro in particular receiving an exceptionally high level of investment throughout. (Table 4-6). But Bosnia-Hercegovina, a high-investment region in the earlier years of the build-up of the basic industries, in the latter part of the period had investment ratios below the national average, and only slightly above the more developed group, its level of investment relative to output not only failing to match the national increase in these years, but actually declining. Kosmet, by contrast, had among the lowest ratios in the
earlier years, when its development received negligible attention nationally, followed by a sudden acceleration after its scheduling as underdeveloped in 1957, to the highest among all the regions, apart from Montenegro. Thus only Macedonia and Montenegro, the latter in particular, consistently received higher levels of investment than the more developed regions; in Bosnia-Hercegovina the high investment of the early years subsequently declined, against the national trend, while the development of Kosmet was neglected in the first half of the period, but received major investment efforts after 1958.

The intensification and widening of development efforts in the backward regions as a group in the late 1950's, following their relatively high levels of investment in the first half of the period brought a highly significant change in their growth of output. In each year between 1953 and 1957 the increase in social product in the underdeveloped regions was less (or the decline greater) than in the more developed regions, while from 1960 the reverse was normally the case. (Table 4-7). This pattern emerges even more clearly when agriculture, with its large year-to-year fluctuations, is omitted from total output (Table 4-8); in each year between 1953 and 1958 the percentage increase in output, excluding agriculture, in the underdeveloped regions was less than in the more developed regions, but in each year between 1959 and 1964 it was greater. The growth positions of the two regional groups were thus reversed between the two halves of the period.

As 1957 introduced a new importance for the development of the underdeveloped regions (apart from Bosnia-Hercegovina) as a policy objective, which found expression in the level and pattern of realised investment.

1. The annual ratios of gross productive investment to social product, by region, are given in Table A-4.
investment from 1958, 1959 constituted the turning-point in the growth results deriving from the policy.

This change in the relative growth rates of the regional groups modifies the pessimistic conclusion on the results of development policy over the period as a whole. (Table 4-9). Between 1953 and 1958, the growth of social product in the more developed regions, at 8.0 per cent, was substantially higher than in the underdeveloped regions, at 6.6 per cent; three of the four developed regions exceeded the growth rate of the economy as a whole, while only Macedonia and Montenegro of the underdeveloped regions did so; the growth of Bosnia-Hercegovina and especially Kosmet lagged well behind that of the other regions. But between 1958 and 1964 the economy as a whole grew more rapidly, the increase being due entirely to the acceleration of growth in the underdeveloped regions; their growth rate increased markedly, from 6.6 to 8.9 per cent, while the growth rate of the more developed regions remained virtually unchanged, at 7.9 per cent; only Macedonia, among the underdeveloped regions individually, failed to achieve this acceleration and to exceed the growth of the more developed group. 1.

This pattern of constancy in the growth rate of the more developed group and acceleration in the underdeveloped regions, from a rate below this to one above it, is confirmed when the growth of social product is considered exclusive of agriculture, where wide year-to-year fluctuations could have distorted a growth trend estimated over a period as short as

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1. The growth rate quoted for Macedonia is an estimate only. The growth of actual output 1958-64, 9.3 per cent, is biased upwards by the increased output, particularly of the construction industry, for the rebuilding of Skopje 1963-64; but the growth rate for 1958-62, 5.2 per cent, is also an inadequate representation of the trend, since the growth of output lagged throughout the country in 1961-62 and then increased strongly in 1963-64.
The underdeveloped regions therefore succeeded, between 1958 and 1964 in establishing a favourable differential of 1 per cent per year in the rates of growth between themselves and the more developed regions. But this was cancelled out by their unfavourable differential in population growth, 2.0 per cent against 0.7 in the more developed regions, transforming their growth advantage into a small adverse margin on a per capita basis. In spite, therefore, of the considerable improvement in the growth performance of the underdeveloped regions in the latter part of the period, the divergent movement continued.

A very high rate of expansion in industrial production was characteristic of all regions throughout the period (with the single exception of Kosmet in the early years). In the first part of the period the rate of industrial growth in the underdeveloped regions was 14.1 per cent, compared with 12.2 per cent in the more developed group; in the majority of regions the growth rate declined slightly in the latter half, but at 11.9 per cent against 10.3, the underdeveloped regions still retained a small, although slightly reduced, advantage. (Table 4-10). Many of the extremely high growth rates in individual sectors, characteristic of 'infant industry' growth, declined in the later years. 2.

In the growth of agricultural output, however, the underdeveloped regions were much less successful. After fractionally exceeding the growth rate of the more developed regions in the earlier years, at 3.9 against 3.8 per cent, the rate in the underdeveloped group fell even more sharply, to 2.0 against 2.5 per cent. The growth rates of the individual

1. Two notable examples of this are the trend growth rates for social product in Vojvodina and Serbia Proper 1958-64, biased downwards by the record output of agriculture in 1959.
2. The contribution of the individual sectors to social product is shown in Table A-3; the growth rates are given in Table A-6.
regions showed wide variation, but for periods as short as six years, with the large year-to-year fluctuations experienced in Yugoslav agriculture, any comparison of 'trends' is dubiously meaningful.

Transport, commerce and construction each followed a similar pattern, with growth rates below those of the more developed regions in the first part of the period, but accelerating to exceed them in the later years.

The improvement in the growth position of the underdeveloped regions in the latter part of the period was thus widely based, all the major sectors with the exception of agriculture growing more rapidly than in the more developed regions, by contrast with the earlier years when industry alone had achieved a favourable differential.

**Employment Patterns**

The growth of total output in Yugoslavia over the twelve years derived predominantly from improved output per worker, while in the majority of regions total employment expanded only slowly, often more slowly than population. (Table 4-11). As employment opportunities were created in non-agricultural activities, labour was drawn away from its previous employment (commonly underemployment) in agriculture; where the new employment was in towns, women who had been employed in agriculture tended to drop out of the labour-force; and as the movement of population into the towns gained independent momentum, proceeding more rapidly than the growth of urban employment opportunities, recorded unemployment rose from 4.8 per cent of the labour-force outside the private sector of agriculture in 1953 to 7.0 per cent in 1964, with much higher figures in Macedonia and Kosmet. The decline in the agricultural population resulting from these various movements largely offset the expansion of
non-agricultural employment. Even in Slovenia and Vojvodina, where agricultural underemployment was least and the attraction to immigration greatest, the expansion in total employment was small. Only in Kosmet, where a rate of population growth of 2.4 per cent per year combined with a very late start in industrial development to bring the only increase among the regions in agricultural population (again at 2.4 per cent), was the expansion of total employment, at 3.0 per cent, significant.

The growth of output per worker derived from the two aspects of development, the structural shift of employment out of primitive agriculture, and higher productivity within individual sectors deriving from investment, worker training and improved organisation. The rapid expansion of employment outside the private sector of agriculture in Macedonia, Montenegro and Kosmet, and particularly in industry in the first two regions, indicates that a substantial structural shift was taking place. (Table 4-11).

The break-down of the increase in output per worker in the economy as a whole into these 'structural' and 'productivity' components reveals that the underdeveloped regions consistently derived a greater part of their increase in labour productivity from the structural shift than did the more developed regions. (Table 4-12). The increase in average productivity of labour can be expressed as follows:

\[
\frac{p(t)}{p(o)} = \frac{\sum_i a(i) \cdot \frac{n(i)}{n(o)}}{\sum_i a(i) \cdot \frac{n(o)}{n(o)}}
\]

where \( p \) = output per worker
\( a(i) \) = the share of the \( i \)th sector in total employment
0, \( t \) refer to base, end years.

\[
= \frac{\sum_i a(i) \cdot \frac{n(o)}{n(o)} \cdot \frac{n(i)}{n(o)}}{\sum_i a(i) \cdot \frac{n(o)}{n(o)} \cdot \frac{n(o)}{n(o)}}
\]

The first term in this expression is the 'standardised index' in Laspeyres form, where the increase in productivity in each sector \( \left( \frac{p(i)}{n(i)} \right) \) is
weighted by its share in total employment in the base-year \( a_{10} \); the second term is a Paasche form 'structural index' where the change in the relative importance of each sector in total employment \( \frac{a_{it}}{a_{10}} \) is weighted by its end-year productivity \( p_{it} \).  

The productivity increase in the structural index relative to the actual increase can be taken as an approximate measure of the 'structural component', the contribution to increased average productivity from the shift in the pattern of employment. When this method is applied to the six major sectors of the Yugoslav industrial classification (agriculture, industry, transport, commerce, construction, crafts), the structural component in the productivity increase over the period 1953–64 is 32 per cent for the economy as whole, the same figure as in Bosnia-Hercegovina, with the other underdeveloped regions all deriving greater proportions from employment changes.  

The growth of labour productivity within industry, however, reveals no systematic pattern in either regional group; the relative contributions of the structural shift to higher-productivity sectors and of the growth of productivity within the twenty sectors individually varied widely from region to region with individual development strategies. (Table 4-13).

Non-productive Services

While making no direct contribution to current output, the expansion

1. This method is applied to national data, for European countries, by the Economic Commission for Europe (1964).

2. These estimates of the structural component can be only approximate, since their derivation assumes the independence of structural and productivity changes, although, in circumstances of agricultural under-employment, in agriculture at least, they are likely to be complementary in effect. Between regions, however, these effects will be in the same direction, if not of the same magnitude. The division between the structural and productivity aspects itself depends on the level of aggregation applied; a 'productivity' change recorded for a sector as a whole may be entirely the result of 'structural' changes within the sector.
of the non-productive services was recognised as an essential part of development, education and health for their effects, in the longer term, on the quality of labour and management, housing for its influence on population migration, particularly into the towns. But the underdeveloped regions found themselves in the same unhappy position in regard to non-productive as to productive investment; intensive investment efforts, equivalent to a much higher proportion of regional output than in the more developed regions, yielded a lower level of investment per head of the population. (Table 4-14). Moreover, in spite of the investment efforts, population growth brought a relative deterioration in their position in the latter half of the period; in both regional groups non-productive investment almost doubled, as a proportion of social product, following the new emphasis on improving the standard of living after 1957, but in the underdeveloped regions its per capita level fell from 84 per cent of the national figure in the earlier years to 76 per cent, while in the more developed regions it improved from 107 to 112.

These investment efforts, however, combined with substantial budgetary assistance for current expenditure, enabled the underdeveloped regions to achieve greater success than in production in eliminating their inherited backwardness, although even in the middle 1960's important disparities remained.

In 1953, when only four years of schooling were compulsory under federal law, 60.2 per cent of Yugoslav children attended school, the enrolment rate in each of the more developed regions exceeding this, and in each of the underdeveloped regions, with the exception of Montenegro, falling short of it. (Table 4-15). Moreover, between then and 1960, years of rapid expansion of the education system as a whole, including
the introduction of compulsory eight-year schooling in 1958, total enrolments increased less rapidly in the underdeveloped regions, to 138.6 per cent of their 1953 level, against 145.6 in the more developed regions. The enrolment rates in the more developed regions in 1960, as calculated by the Organisation for Economic Cooperation and Development (1965), 87 per cent in Serbia Proper and 94 per cent in the other three regions, were coming close to full implementation of universal eight-year schooling, while each of the underdeveloped regions had a lower rate, and in Bosnia-Hercegovina and Kosmet only two children out of three were attending school. The remaining four years, however, 1960-64 brought a marked improvement in the underdeveloped regions; by 1964, their enrolments had increased by 24.9 per cent over their level of 1960, against an increase of only 10.0 per cent in the more developed regions, an improvement sufficient to offset their adverse margin in the earlier years, and give the underdeveloped regions a higher increase over the period as a whole. Enrolment rates are not available for 1964, but the rapid increase in enrolments, far exceeding any increase in the population of school age, between 1960 and 1964 would begin, for the first time, in narrow the disparities in the provision of basic schooling.

Not only did the underdeveloped regions provide schooling for a smaller, although increasing, proportion of their children, but its equality, as far as can be gauged from simple indices, was also inferior. In 1953 the underdeveloped regions had an average of 46.6 pupils per teacher, against 36.3 in the more developed regions; teacher supply, however, which more than doubled in the country as a whole over the twelve years, grew even more rapidly in the underdeveloped regions, offsetting the increase in pupil enrolments and allowing the pupil-teacher
ratio to fall to 35.3, below its level in the more developed regions in 1953 but still above their current 28.8. (Table 4-16). A survey of school buildings in 1964 revealed an average of 68 pupils per classroom, against 63 in the more developed regions, both figures showing the prevalence of over-crowding and two-shift schooling. The record for Bosnia-Hercegovina was conspicuously poor.

The deficiencies in educational provision in the underdeveloped regions, as measured by enrolment rates, were even more pronounced at the higher levels, upper elementary schooling (ages 11-15), secondary schooling (ages 16-19) and higher education. (Table 4-17).

The level of illiteracy declined at closely similar rates in the two regional groups, the relatively slow decline in Bosnia-Hercegovina preventing the underdeveloped regions as a group from improving their position. (Table 4-18). Adult education also made a smaller contribution to reducing illiteracy in the underdeveloped regions, where two out of three of those who had received no schooling remained illiterate, against only one in two in the more developed regions. To eliminate the deficiencies evident in the educational standards of the population at all levels could be only a long-term process, but already between 1953 and 1961, according to the information recorded in the population censuses, the underdeveloped regions had made a substantial beginning, in reducing the proportion of the population who had received no schooling and increasing particularly those with elementary schooling, while relatively large increases also occurred at the levels of secondary schooling and higher education.

As in education, the years 1953-64 brought major improvement in health standards and facilities throughout Yugoslavia, progress which
the underdeveloped regions often surpassed without fully eliminating their inherited disadvantages.

The rapid decline in the death rate common in underdeveloped countries when the techniques and products of modern medicine are first introduced on a large scale occurred in Yugoslavia, and particularly strongly in the underdeveloped regions. (Table 4-19). Certain endemic diseases, notably malaria, diphtheria and syphilis, were largely eliminated, and a major drive against tuberculosis begun; by 1963-64 infant mortality in the underdeveloped regions had fallen by one-quarter from its level of a decade before, although the developed regions achieved an even more rapid reduction; improved medical care and a higher standard of living served to raise the general health standards of the population.

The birth rate also showed a marked decline, but in the underdeveloped regions, unlike the more developed group, it fell more slowly than the death rate, giving rise to an acceleration of the rate of population increase. The underdeveloped regions thus faced a situation familiar in developing countries, the introduction of medical improvements, by destroying the previous equilibrium at high birth and death rates, giving rise to a rapid growth of population, which exacerbated the difficulties of development.

Two measures of the standard of medical facilities by region are the average population to be served by each doctor and by each hospital bed. (Table 4-20). The patient-load per doctor fell markedly throughout Yugoslavia, but particularly in the underdeveloped regions, where it declined by almost half over ten years; even with this improvement, however, it remained at almost twice its level in the more developed
regions. Similarly, in provision of hospital beds, a more rapid improvement in the underdeveloped regions still left a marked inferiority in the facilities available.

This statistical summary gives the outline, in quantitative terms, of the development efforts in the underdeveloped regions over the twelve years, and their results. The individual regions, however, adopted widely differing routes to development, with their individual circumstances, routes which yielded varying degrees of success.
Table 4-1  Average Investment Ratios, by Region, 1953-64

<table>
<thead>
<tr>
<th>Region</th>
<th>Total Gross Investment as % of SP</th>
<th>Gross Productive Investment as % of SP</th>
<th>Net Productive Investment as % of NI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yugoslavia</td>
<td>33.3</td>
<td>22.9</td>
<td>16.8</td>
</tr>
<tr>
<td>Developed Regions</td>
<td>30.5</td>
<td>20.7</td>
<td>14.5</td>
</tr>
<tr>
<td>Underdeveloped Regions</td>
<td>43.3*</td>
<td>31.0*</td>
<td>24.9*</td>
</tr>
<tr>
<td>Slovenia</td>
<td>27.9</td>
<td>18.8</td>
<td>12.1</td>
</tr>
<tr>
<td>Croatia</td>
<td>29.1</td>
<td>20.0</td>
<td>13.4</td>
</tr>
<tr>
<td>Vojvodina</td>
<td>32.0</td>
<td>22.9</td>
<td>17.3*</td>
</tr>
<tr>
<td>Serbia Proper</td>
<td>33.2</td>
<td>21.9</td>
<td>16.2</td>
</tr>
<tr>
<td>Bosnia-Hercegovina</td>
<td>36.1*</td>
<td>25.9*</td>
<td>19.7*</td>
</tr>
<tr>
<td>Macedonia</td>
<td>42.8*</td>
<td>31.1*</td>
<td>26.6*</td>
</tr>
<tr>
<td>Montenegro</td>
<td>84.8*</td>
<td>69.1*</td>
<td>65.5*</td>
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<tr>
<td>Kosmet</td>
<td>46.0*</td>
<td>32.0*</td>
<td>26.9*</td>
</tr>
</tbody>
</table>

* denotes a figure above the national average.

Each ratio is the average of the ratio for each of the twelve years, except in Macedonia where it covers the years 1953-62 only, to exclude the effects of the rebuilding of Skopje, 1963-64.
<table>
<thead>
<tr>
<th>Region</th>
<th>Total Investment</th>
<th>Productive Investment</th>
<th>Net Productive Investment</th>
</tr>
</thead>
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<td>100</td>
<td>100</td>
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<tr>
<td>Developed Regions</td>
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<td>105</td>
<td>101</td>
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<td>Underdeveloped Regions</td>
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<td>90</td>
<td>98</td>
</tr>
<tr>
<td>Slovenia</td>
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<tr>
<td>Croatia</td>
<td>104</td>
<td>104</td>
<td>96</td>
</tr>
<tr>
<td>Vojvodina</td>
<td>102</td>
<td>108</td>
<td>114</td>
</tr>
<tr>
<td>Serbia Proper</td>
<td>92</td>
<td>88</td>
<td>89</td>
</tr>
<tr>
<td>Bosnia-Hercegovina</td>
<td>83</td>
<td>85</td>
<td>82</td>
</tr>
<tr>
<td>Macedonia</td>
<td>86</td>
<td>89</td>
<td>103</td>
</tr>
<tr>
<td>Montenegro</td>
<td>154</td>
<td>179</td>
<td>227</td>
</tr>
<tr>
<td>Kosmet</td>
<td>51</td>
<td>52</td>
<td>60</td>
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</tbody>
</table>

Each figure is the average of the index for each of the twelve years, except in Macedonia where it covers the years 1953-62 only, to exclude the effects of the rebuilding of Skopje, 1963-64.
Table 4-3 Growth of Social Product, National Income and Population
by Region, 1953-64

<table>
<thead>
<tr>
<th>Region</th>
<th>Social Product</th>
<th>National Income</th>
<th>Population</th>
<th>Social Product per Head</th>
</tr>
</thead>
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</tr>
<tr>
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<td>3.3*</td>
<td>0.8</td>
<td>7.6*</td>
</tr>
<tr>
<td>Underdeveloped Regions</td>
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<td>7.9</td>
<td>1.7*</td>
<td>6.4</td>
</tr>
<tr>
<td>Slovenia</td>
<td>8.5*</td>
<td>3.5*</td>
<td>0.7</td>
<td>7.8*</td>
</tr>
<tr>
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<td>7.9</td>
<td>0.7</td>
<td>7.3*</td>
</tr>
<tr>
<td>Vojvodina</td>
<td>8.2</td>
<td>3.2</td>
<td>0.9</td>
<td>7.3*</td>
</tr>
<tr>
<td>Serbia Proper</td>
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<td>3.7*</td>
<td>0.9</td>
<td>8.0*</td>
</tr>
<tr>
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<td>6.2</td>
</tr>
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<td>7.9</td>
<td>1.0</td>
<td>7.2</td>
</tr>
<tr>
<td>Montenegro</td>
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<td>9.8*</td>
<td>1.6*</td>
<td>3.9*</td>
</tr>
<tr>
<td>Kosmet</td>
<td>6.8</td>
<td>6.8</td>
<td>2.4*</td>
<td>4.4</td>
</tr>
</tbody>
</table>

* denotes a figure above the national average.

The growth rates in Macedonia derive a fractional upward bias from the rebuilding of Skopje 1963-64.
Figure 2. Social Product Per Head (Thousand Dinars) R' Region.
Figure 7. Index of Social Product per Head by Region.
Table 4-4  Growth of the Major Sectors, by Region, 1953-64

<table>
<thead>
<tr>
<th>Region</th>
<th>Industry</th>
<th>Agriculture</th>
<th>Transport</th>
<th>Commerce</th>
<th>Construction</th>
<th>Handicrafts</th>
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</thead>
<tbody>
<tr>
<td>Yugoslavia</td>
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<td>3.9</td>
<td>9.7</td>
<td>9.9</td>
<td>7.9</td>
<td>4.1</td>
</tr>
<tr>
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<td>9.7</td>
<td>10.1</td>
<td>9.3*</td>
<td>3.6</td>
</tr>
<tr>
<td>Underdeveloped Regions</td>
<td>12.6*</td>
<td>3.5</td>
<td>9.8*</td>
<td>8.8</td>
<td>4.8</td>
<td>6.7*</td>
</tr>
<tr>
<td>Slovenia</td>
<td>9.5</td>
<td>3.9</td>
<td>10.5*</td>
<td>11.0*</td>
<td>10.2*</td>
<td>3.9</td>
</tr>
<tr>
<td>Croatia</td>
<td>10.5</td>
<td>3.9</td>
<td>9.0</td>
<td>9.7</td>
<td>8.0*</td>
<td>3.4</td>
</tr>
<tr>
<td>Vojvodina</td>
<td>12.7*</td>
<td>4.9*</td>
<td>11.7*</td>
<td>11.2*</td>
<td>12.1*</td>
<td>2.8</td>
</tr>
<tr>
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<td>9.7</td>
<td>9.6</td>
<td>9.4*</td>
<td>4.0</td>
</tr>
<tr>
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<td>8.7</td>
<td>9.3</td>
<td>2.3</td>
<td>7.9*</td>
</tr>
<tr>
<td>Macedonia</td>
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<td>3.5</td>
<td>9.2</td>
<td>7.7</td>
<td>2.8</td>
<td>5.9*</td>
</tr>
<tr>
<td>Montenegro</td>
<td>20.5*</td>
<td>3.2</td>
<td>20.8*</td>
<td>8.3</td>
<td>0.1</td>
<td>8.7*</td>
</tr>
<tr>
<td>Kosmet</td>
<td>8.7</td>
<td>4.1*</td>
<td>8.0</td>
<td>10.2*</td>
<td>10.6*</td>
<td>0.9</td>
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</tbody>
</table>

* denotes a figure above the national average.

The growth rate for construction in Macedonia covers the years 1953-62 only, to avoid the effects of the rebuilding of Skopje 1963-64.
Table 4-5  Total Investment as a Percentage of Social Product, Annually 1953-64.

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Yugoslavia</td>
<td>33.1</td>
<td>32.7</td>
<td>28.2</td>
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<td>27.3</td>
<td>32.5</td>
<td>32.8</td>
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<td>38.0</td>
<td>38.0</td>
<td>37.3</td>
<td>35.5</td>
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<td>29.1</td>
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<td>35.2</td>
<td>33.2</td>
<td>31.2</td>
</tr>
<tr>
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<td>36.7</td>
<td>33.4</td>
<td>31.7</td>
<td>37.0</td>
<td>37.6</td>
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<td>48.2</td>
<td>52.9</td>
<td>51.5</td>
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</table>
### Table 4-6 Average Investment Ratios, by Region and Sub-period

<table>
<thead>
<tr>
<th>Region</th>
<th>Total Investment as % of SP</th>
<th>Productive Investment as % of SP</th>
<th>Net Productive Investment as % of NI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yugoslavia</td>
<td>29.9</td>
<td>35.6</td>
<td>22.9</td>
</tr>
<tr>
<td>Developed Regions</td>
<td>27.1</td>
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<td>20.4</td>
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<td>Underdeveloped Regions</td>
<td>40.2*</td>
<td>45.6*</td>
<td>31.9*</td>
</tr>
<tr>
<td>Slovenia</td>
<td>27.1</td>
<td>28.4</td>
<td>20.1</td>
</tr>
<tr>
<td>Croatia</td>
<td>25.6</td>
<td>31.6</td>
<td>17.4</td>
</tr>
<tr>
<td>Vojvodina</td>
<td>21.2</td>
<td>39.7*</td>
<td>15.7</td>
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<tr>
<td>Serbia Proper</td>
<td>31.4*</td>
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<td>23.6*</td>
</tr>
<tr>
<td>Bosnia-Hercegovina</td>
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<td>30.9*</td>
</tr>
<tr>
<td>Macedonia</td>
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<tr>
<td>Montenegro</td>
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<td>Kosmet</td>
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<td>62.2*</td>
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</table>

* denotes a figure above the national average.

The averages for Macedonia refer to 1958-62 only, to exclude the effects of the rebuilding of Skopje, 1963-64.
### Table 4-7  Annual Percentage Change in Social Product, 1953-64.

<table>
<thead>
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</tr>
</thead>
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<td>4.3</td>
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<td>3.1</td>
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<td>4.8</td>
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<td>11.8</td>
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### Table 4-8  Annual Percentage Change in Social Product, excluding Agriculture, 1953-64.

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<td>5.4</td>
<td>13.8</td>
<td>14.4</td>
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<tr>
<td>Developed Regions</td>
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<td>10.7</td>
<td>4.2</td>
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<tr>
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<td>12.5</td>
<td>9.8</td>
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Table 4-9  Growth of Social Product, Social Product per Head and Social Product outside Agriculture by Region and Sub-period

<table>
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<tr>
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<tr>
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<tr>
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<td>9.4*</td>
<td>8.4*</td>
<td>8.4</td>
<td>10.3</td>
<td>7.8*</td>
<td>7.6*</td>
</tr>
<tr>
<td>Croatia</td>
<td>8.3*</td>
<td>7.7</td>
<td>7.0</td>
<td>9.7</td>
<td>7.5*</td>
<td>7.1*</td>
</tr>
<tr>
<td>Vojvodina</td>
<td>7.2</td>
<td>7.7</td>
<td>12.0*</td>
<td>11.3*</td>
<td>6.0</td>
<td>6.9</td>
</tr>
<tr>
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<td>8.0</td>
<td>11.8*</td>
<td>10.0</td>
<td>6.8*</td>
<td>7.3*</td>
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<td>8.0</td>
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<td>4.4</td>
<td>6.0</td>
</tr>
<tr>
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<td>7.2</td>
<td>8.4</td>
<td>10.5</td>
<td>7.4*</td>
<td>5.8</td>
</tr>
<tr>
<td>Montenegro</td>
<td>8.0*</td>
<td>14.2*</td>
<td>8.8</td>
<td>19.9*</td>
<td>6.5</td>
<td>12.5*</td>
</tr>
<tr>
<td>Kosmet</td>
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<td>9.4*</td>
<td>3.4</td>
<td>13.3*</td>
<td>1.5</td>
<td>6.6</td>
</tr>
</tbody>
</table>

* denotes a figure above the national average.

The growth rates in Macedonia 1953-64 have been adjusted to take account of the rebuilding of Skopje 1963-64.
Table 4-10  Growth of Industry, Agriculture and Transport, by Region and Sub-period

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
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<td>2.3</td>
<td>10.2</td>
<td>8.4</td>
</tr>
<tr>
<td>Developed Regions</td>
<td>12.2</td>
<td>10.3</td>
<td>3.8</td>
<td>2.5*</td>
<td>10.7*</td>
<td>8.2</td>
</tr>
<tr>
<td>Underdeveloped Regions</td>
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<td>11.9*</td>
<td>3.9*</td>
<td>2.0</td>
<td>8.2</td>
<td>9.2*</td>
</tr>
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<td>-0.2</td>
<td>10.1</td>
<td>10.3*</td>
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<td>6.7*</td>
<td>2.0</td>
<td>11.9*</td>
<td>7.1</td>
</tr>
<tr>
<td>Vojvodina</td>
<td>11.9</td>
<td>13.4*</td>
<td>2.8</td>
<td>3.6*</td>
<td>12.6*</td>
<td>11.0*</td>
</tr>
<tr>
<td>Serbia Proper</td>
<td>16.9*</td>
<td>10.0</td>
<td>-0.5</td>
<td>3.5*</td>
<td>8.5</td>
<td>7.6</td>
</tr>
<tr>
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<td>10.8*</td>
<td>1.6</td>
<td>1.7</td>
<td>7.0</td>
<td>8.1</td>
</tr>
<tr>
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<td>10.3</td>
<td>8.0*</td>
<td>1.9</td>
<td>7.8</td>
<td>7.6</td>
</tr>
<tr>
<td>Montenegro</td>
<td>18.5*</td>
<td>24.6*</td>
<td>6.6*</td>
<td>1.1</td>
<td>25.1*</td>
<td>16.9*</td>
</tr>
<tr>
<td>Kosmet</td>
<td>3.6</td>
<td>13.9*</td>
<td>2.8</td>
<td>3.7*</td>
<td>5.5</td>
<td>11.9*</td>
</tr>
</tbody>
</table>

* denotes a figure above the national average.
Table 4-11  Employment and Unemployment, by Region, 1953-64

<table>
<thead>
<tr>
<th>Region</th>
<th>% Growth of Employment 1953-64</th>
<th>Rate of Unemployment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Agriculture</td>
</tr>
<tr>
<td>Yugoslavia</td>
<td>0.7</td>
<td>-1.2</td>
</tr>
<tr>
<td>Developed Regions</td>
<td>0.6</td>
<td>-1.5*</td>
</tr>
<tr>
<td>Underdeveloped Regions</td>
<td>0.9*</td>
<td>-0.5</td>
</tr>
<tr>
<td>Slovenia</td>
<td>1.3*</td>
<td>-2.7*</td>
</tr>
<tr>
<td>Croatia</td>
<td>0.4</td>
<td>-2.1*</td>
</tr>
<tr>
<td>Vojvodina</td>
<td>1.0*</td>
<td>-1.4*</td>
</tr>
<tr>
<td>Serbia Proper</td>
<td>0.4</td>
<td>-0.9</td>
</tr>
<tr>
<td>Bosnia-Hercegovina</td>
<td>0.5</td>
<td>-0.3</td>
</tr>
<tr>
<td>Macedonia</td>
<td>0.5</td>
<td>-1.2</td>
</tr>
<tr>
<td>Montenegro</td>
<td>0.7</td>
<td>-1.3*</td>
</tr>
<tr>
<td>Kosmet</td>
<td>3.0*</td>
<td>2.4</td>
</tr>
</tbody>
</table>

* denotes a figure above the national average.

Non-agricultural employment covers all productive activities excluding the private sector of agriculture.

Unemployment is expressed as a percentage of employment outside the private sector of agriculture.
<table>
<thead>
<tr>
<th>Region</th>
<th>Actual Index</th>
<th>Standardised Index</th>
<th>Structural Index</th>
<th>Structural Component (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yugoslavia</td>
<td>231.6</td>
<td>163.2</td>
<td>141.8</td>
<td>32</td>
</tr>
<tr>
<td>Slovenia</td>
<td>225.5</td>
<td>164.1</td>
<td>137.4</td>
<td>30</td>
</tr>
<tr>
<td>Croatia</td>
<td>236.1</td>
<td>167.5</td>
<td>141.1</td>
<td>30</td>
</tr>
<tr>
<td>Vojvodina</td>
<td>218.4</td>
<td>171.6</td>
<td>127.2</td>
<td>23</td>
</tr>
<tr>
<td>Serbia Proper</td>
<td>237.2</td>
<td>160.8</td>
<td>140.4</td>
<td>35</td>
</tr>
<tr>
<td>Bosnia-Hercegovina</td>
<td>220.7</td>
<td>159.9</td>
<td>139.1</td>
<td>32</td>
</tr>
<tr>
<td>Macedonia</td>
<td>176.8</td>
<td>136.5</td>
<td>129.6</td>
<td>39</td>
</tr>
<tr>
<td>Montenegro</td>
<td>299.2</td>
<td>164.7</td>
<td>181.8</td>
<td>41</td>
</tr>
<tr>
<td>Kosmet</td>
<td>159.3</td>
<td>129.6</td>
<td>123.5</td>
<td>40</td>
</tr>
</tbody>
</table>

The figures for Macedonia cover the years 1953-62 only to avoid the increase in construction associated with the rebuilding of Skopje 1963-64. The 'actual index' of increase, in particular, is not comparable with the indices for other regions.
<table>
<thead>
<tr>
<th>Region</th>
<th>Actual Index</th>
<th>Standardised Index</th>
<th>Structural Index</th>
<th>Structural Component (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yugoslavia</td>
<td>167.6</td>
<td>161.4</td>
<td>103.8</td>
<td>6</td>
</tr>
<tr>
<td>Slovenia</td>
<td>150.4</td>
<td>152.4</td>
<td>93.5</td>
<td>-3</td>
</tr>
<tr>
<td>Croatia</td>
<td>161.3</td>
<td>150.9</td>
<td>107.1</td>
<td>12</td>
</tr>
<tr>
<td>Vojvodina</td>
<td>159.0</td>
<td>143.3</td>
<td>110.0</td>
<td>19</td>
</tr>
<tr>
<td>Serbia Proper</td>
<td>182.8</td>
<td>182.9</td>
<td>100.0</td>
<td>0</td>
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<tr>
<td>Bosnia-Hercegovina</td>
<td>202.3</td>
<td>189.3</td>
<td>106.9</td>
<td>7</td>
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<tr>
<td>Macedonia</td>
<td>167.5</td>
<td>165.3</td>
<td>101.3</td>
<td>2</td>
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<tr>
<td>Montenegro</td>
<td>213.5</td>
<td>180.6</td>
<td>118.1</td>
<td>16</td>
</tr>
<tr>
<td>Kosmet</td>
<td>142.2</td>
<td>153.2</td>
<td>92.7</td>
<td>-17</td>
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</table>
Table 4-14  Non-Productive Investment, by Region and Sub-period

<table>
<thead>
<tr>
<th>Region</th>
<th>Non-Productive Investment as % of SP</th>
<th>Non-Productive Investment per Head</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1953-57</td>
<td>1958-64</td>
</tr>
<tr>
<td>Yugoslavia</td>
<td>7.0</td>
<td>12.7</td>
</tr>
<tr>
<td>Developed Regions</td>
<td>6.7</td>
<td>12.0</td>
</tr>
<tr>
<td>Underdeveloped Regions</td>
<td>8.3*</td>
<td>15.2*</td>
</tr>
<tr>
<td>Slovenia</td>
<td>7.0</td>
<td>10.6</td>
</tr>
<tr>
<td>Croatia</td>
<td>6.1</td>
<td>11.3</td>
</tr>
<tr>
<td>Vojvodina</td>
<td>5.6</td>
<td>11.7</td>
</tr>
<tr>
<td>Serbia Proper</td>
<td>7.7*</td>
<td>14.0*</td>
</tr>
<tr>
<td>Bosnia-Hercegovina</td>
<td>7.3*</td>
<td>12.3</td>
</tr>
<tr>
<td>Macedonia</td>
<td>9.1*</td>
<td>14.1*</td>
</tr>
<tr>
<td>Montenegro</td>
<td>16.2*</td>
<td>15.3*</td>
</tr>
<tr>
<td>Kosmet</td>
<td>8.1*</td>
<td>13.3*</td>
</tr>
</tbody>
</table>

* denotes a figure above the national average.

The figures for Macedonia refer to 1953-62 only, to exclude the effects of the rebuilding of Skopje, 1963-64.
Table 4-15  School Enrolments, by Region, 1953, 1960 and 1964.

<table>
<thead>
<tr>
<th>Region</th>
<th>Enrolment (thousands)</th>
<th>Index</th>
<th>Enrolment Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yugoslavia</td>
<td>1809.5</td>
<td>2589.6</td>
<td>2980.2</td>
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<tr>
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<td>1170.5</td>
<td>1703.9</td>
<td>1874.3</td>
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<tr>
<td>Underdeveloped Regions</td>
<td>638.9</td>
<td>885.7</td>
<td>1106.0</td>
</tr>
<tr>
<td>Slovenia</td>
<td>188.7</td>
<td>228.6</td>
<td>243.6</td>
</tr>
<tr>
<td>Croatia</td>
<td>395.7</td>
<td>580.1</td>
<td>630.1</td>
</tr>
<tr>
<td>Vojvodina</td>
<td>180.2</td>
<td>257.8</td>
<td>279.0</td>
</tr>
<tr>
<td>Serbia Proper</td>
<td>495.9</td>
<td>637.3</td>
<td>721.6</td>
</tr>
<tr>
<td>Bosnia-Hercegovina</td>
<td>302.0</td>
<td>442.8</td>
<td>574.9</td>
</tr>
<tr>
<td>Madeconia</td>
<td>169.3</td>
<td>224.8</td>
<td>253.0</td>
</tr>
<tr>
<td>Montenegro</td>
<td>53.9</td>
<td>75.0</td>
<td>90.5</td>
</tr>
<tr>
<td>Kosmet</td>
<td>113.7</td>
<td>143.0</td>
<td>187.6</td>
</tr>
</tbody>
</table>

* denotes a figure above the national average.
Table 4-16  Supply of Teachers, by Region, 1953 and 1964

<table>
<thead>
<tr>
<th>Number of Teachers</th>
<th>Pupil-Teacher Ratio</th>
<th>Pupils per Classroom</th>
</tr>
</thead>
<tbody>
<tr>
<td>1953</td>
<td>1964</td>
<td>Index</td>
</tr>
<tr>
<td>Yugoslavia</td>
<td>45 968</td>
<td>96 370</td>
</tr>
<tr>
<td>Developed Regions</td>
<td>32 246</td>
<td>65 025</td>
</tr>
<tr>
<td>Underdeveloped Regions</td>
<td>13 722</td>
<td>31 345</td>
</tr>
<tr>
<td>Slovenia</td>
<td>5 183</td>
<td>9 418</td>
</tr>
<tr>
<td>Croatia</td>
<td>10 398</td>
<td>20 848</td>
</tr>
<tr>
<td>Vojvodina</td>
<td>5 534</td>
<td>10 310</td>
</tr>
<tr>
<td>Serbia Proper</td>
<td>11 131</td>
<td>24 449</td>
</tr>
<tr>
<td>Bosnia-Hercegovina</td>
<td>5 215</td>
<td>13 876</td>
</tr>
<tr>
<td>Macedonia</td>
<td>4 166</td>
<td>8 694</td>
</tr>
<tr>
<td>Montenegro</td>
<td>1 636</td>
<td>3 176</td>
</tr>
<tr>
<td>Kosmet</td>
<td>2 705</td>
<td>5 599</td>
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</tbody>
</table>

* denotes a figure better than the national average.
Table 4-17  Enrolment Rates, by Grade of Education and Region, 1953 and 1960

<table>
<thead>
<tr>
<th>Region</th>
<th>Upper Elementary</th>
<th>Secondary</th>
<th>Higher Education</th>
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<tbody>
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<td>37.8</td>
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<td>Slovenia</td>
<td>60.9*</td>
<td>90.2*</td>
<td>25.1*</td>
</tr>
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<td>Croatia</td>
<td>42.1*</td>
<td>91.2*</td>
<td>22.8*</td>
</tr>
<tr>
<td>Vojvodina</td>
<td>60.6*</td>
<td>92.4*</td>
<td>22.0*</td>
</tr>
<tr>
<td>Serbia Proper</td>
<td>39.5*</td>
<td>74.1*</td>
<td>18.6*</td>
</tr>
<tr>
<td>Bosnia-Hercegovina</td>
<td>18.1</td>
<td>44.3</td>
<td>8.5</td>
</tr>
<tr>
<td>Macedonia</td>
<td>31.9</td>
<td>63.1</td>
<td>11.9</td>
</tr>
<tr>
<td>Montenegro</td>
<td>46.0*</td>
<td>74.0*</td>
<td>15.5</td>
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<tr>
<td>Kosmet</td>
<td>30.9</td>
<td>41.2</td>
<td>8.4</td>
</tr>
</tbody>
</table>

* denotes a figure above the national average.

Each figure is shown as a percentage of the appropriate age-group.
<table>
<thead>
<tr>
<th>Region</th>
<th>Illiterates</th>
<th>No Schooling</th>
<th>4 Year Schooling</th>
<th>8 Year Schooling</th>
<th>Secondary Schooling</th>
<th>Higher Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yugoslavia</td>
<td>25.4</td>
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<td>42.1</td>
<td>33.3</td>
<td>46.0</td>
<td>48.5</td>
</tr>
<tr>
<td>Developed Regions</td>
<td>19.1</td>
<td>14.8</td>
<td>33.6</td>
<td>27.1</td>
<td>52.7</td>
<td>52.0</td>
</tr>
<tr>
<td>Underdeveloped Regions</td>
<td>40.4</td>
<td>32.2</td>
<td>62.2</td>
<td>47.6</td>
<td>30.2</td>
<td>40.6</td>
</tr>
<tr>
<td>Slovenia</td>
<td>2.7</td>
<td>1.8</td>
<td>15.2</td>
<td>10.4</td>
<td>68.1</td>
<td>54.3</td>
</tr>
<tr>
<td>Croatia</td>
<td>16.3</td>
<td>12.1</td>
<td>30.5</td>
<td>24.4</td>
<td>56.0</td>
<td>54.9</td>
</tr>
<tr>
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<td>12.9</td>
<td>10.6</td>
<td>28.4</td>
<td>24.4</td>
<td>56.5</td>
<td>55.2</td>
</tr>
<tr>
<td>Serbia Proper</td>
<td>29.5</td>
<td>23.0</td>
<td>44.5</td>
<td>35.9</td>
<td>43.2</td>
<td>47.5</td>
</tr>
<tr>
<td>Bosnia-Hercegovina</td>
<td>40.2</td>
<td>32.5</td>
<td>67.2</td>
<td>51.4</td>
<td>26.1</td>
<td>37.4</td>
</tr>
<tr>
<td>Macedonia</td>
<td>35.7</td>
<td>24.5</td>
<td>50.7</td>
<td>36.8</td>
<td>40.3</td>
<td>49.6</td>
</tr>
<tr>
<td>Montenegro</td>
<td>30.1</td>
<td>21.7</td>
<td>47.2</td>
<td>36.2</td>
<td>40.9</td>
<td>47.5</td>
</tr>
<tr>
<td>Kosmet</td>
<td>54.8</td>
<td>41.1</td>
<td>71.3</td>
<td>57.0</td>
<td>22.8</td>
<td>34.7</td>
</tr>
</tbody>
</table>

All figures are shown as a percentage of the population aged over 10 years. The figures by length of schooling do not total to 100 percent because of the exclusion of a small number of person whose educational level was unknown.
Table 4-19  Birth, Death and Infant Mortality Rates, by Region, 1953-54 and 1963-64.

<table>
<thead>
<tr>
<th></th>
<th>Birth Rate 1953-54</th>
<th>Birth Rate 1963-64</th>
<th>Index</th>
<th>Death Rate 1953-54</th>
<th>Death Rate 1963-64</th>
<th>Index</th>
<th>Infant Mortality 1953-54</th>
<th>Infant Mortality 1963-64</th>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yugoslavia</td>
<td>28.45</td>
<td>21.10</td>
<td>74.2</td>
<td>11.60</td>
<td>9.15</td>
<td>78.9</td>
<td>108.85</td>
<td>76.65</td>
<td>70.4</td>
</tr>
<tr>
<td>Developed Regions</td>
<td>23.50</td>
<td>16.15</td>
<td>68.7</td>
<td>10.60</td>
<td>9.20</td>
<td>86.8</td>
<td>90.00</td>
<td>53.05</td>
<td>58.9</td>
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Successful development in Bosnia-Hercegovina was of crucial importance for the elimination of regional disparities. Not only was it dominant among the poorer regions by virtue of its size, exceeding that of the other three combined, but, as the richest of the poorer group, the convergence of its level of per capita output towards that of the more developed group was essential if further polarisation into 'two nations' was to be prevented. But Bosnia-Hercegovina proved to be the biggest source of disappointment in regional policy.

It appeared, in 1953, to have the best development prospects among the underdeveloped regions; it was the richest in natural resources; its development had already been decisively launched during the build-up of the basic industries under the early Five-Year Plan, when little effort could be spared for the other regions; a number of projects under construction guaranteed the continued expansion of its industrial capacity for several years. But in spite of this apparent 'take-off', the relative position of Bosnia-Hercegovina deteriorated throughout the period; in the earlier years its growth of total output lagged behind that of the more developed regions, and then accelerated to just equal it in the second, while its rate of population growth was exceeded only by Kosmet. The consequent deterioration in its level of social product per head, relative to Vojvodina and Serbia Proper was the major factor causing a wider gulf in the regional groups in 1964 than before the twelve years of regional policy, in 1953. (Table A-1). The region where the development problem had been regarded as virtually solved in the early 1950's came to be partially rescheduled between 1961 and 1964, and rescheduled in its entirety, as underdeveloped, in 1965.

The emphasis on industrialisation as the principal means to develop-
ment, prevalent in all the Yugoslav regions, was pre-eminently so in Bosnia-Hercegovina: industry there consistently absorbed a larger proportion of productive investment than in any other region (Table A-5) and, by providing around half of total output throughout the period, placed Bosnia-Hercegovina second only to Slovenia among all the regions in its dependence on industrial production. ¹ (Table A-3).

This policy of industrialisation proved part success, part failure. In the first half of the period industrial growth was rapid, output increasing at 14.8 per cent against 12.2 in the more developed regions. But this successful industrial expansion was nullified by the poor growth rates of the other sectors, contributing the remaining half of regional output; agriculture, transport, commerce and construction each lagged behind, sometimes substantially behind, its rate of expansion in the more developed regions. Thus while the policy of industrialisation was itself successful in these earlier years, it was concentrated on too narrow a front, with the growth deficiencies of the other major sectors, to give over-all success in development.

In the latter part of the period the growth deficiency in Bosnia-Hercegovina applied across the entire range of economic activity. The growth rates in the major sectors, excluding industry, tended to increase with the national emphasis on development on a broader front, but they still remained below their level in the more developed group. But the rate of industrial expansion declined sharply, from 14.8 to 10.8 per cent, only fractionally exceeding the 10.3 per cent of the more developed group, and giving a quite inadequate margin, in view of the growth deficiencies.

¹ The sector shares in total output are partly a fiction of the pricing system, although a considerable validity for inter-regional comparisons. The prevalence of agricultural underemployment introduces a larger distortion into the estimation of sector shares on the basis of employment.
of the other sectors and the high rate of population growth, for industrialisation to serve as the spearhead of development.

In the early part of the period, therefore, industrialisation was itself successful, but nullified by very poor growth in all other sectors of economic activity, while in the latter part, when the growth of the other sectors improved somewhat, the rate of industrial expansion itself became inadequate for its role in the development strategy.

**Industrial Development**

The initial industrial development of Bosnia-Hercegovina was dominated, as a result of national priorities and its own natural resources, by the build-up of heavy industry. Not only did these industries absorb most of the region's industrial investment, but they provided a very large part of industrial output; in spite of the prevalence of artificially low prices, coal, steel and metal manufactures together constituted over 40 per cent of total industrial production, with electricity and chemicals contributing a further 10 per cent. These sectors dominated industrial growth rates among individual sectors - 24.0 per cent in steel, 13.3 in coal, 19.1 in metal manufactures, 27.1 in electricity and 26.2 in chemicals, as many new projects, sometimes even begun under the 1947-52 Plan, were completed and the new capacity brought into production.

This build-up of heavy industry made such a major impact on industrial development in Bosnia-Hercegovina because it was national development concentrated into the region as a result of the suitability of its resources of coal, iron-ore and water-power. It was, in consequence, genuine large-scale development: the steel-mill at Zenica, for example, had a capacity, largely installed by 1954-55, of 800,000 tons, later
extended to 1.1 million tons. As under the Five-Year Plan of 1947-52, the objective of regional development, in Bosnia-Hercegovina, was promoted largely incidentally, as a consequence of the national sectoral priorities.

This highly specialised pattern of development, based on a small number of related industries, was extended in one further direction. The forestry and timber industries, again based on the region's exceptional natural resources, had been considerably expanded in the early post-war years, to provide no less than 26 per cent of the industrial output of Bosnia-Hercegovina in 1953-54; they continued to be one of the region's largest industrial sectors, although their output stagnated completely between 1953 and 1958. The paper industry, however, initially very small, expanded rapidly.

The consumer industries, a low priority nationally, scarcely featured in the development strategy of Bosnia-Hercegovina at this time; the textile, footwear, food processing and tobacco industries, although each expanding at over 12 per cent annually remained of little importance, contributing together only some 10 per cent of industrial output.

This concentrated development of the resource-based heavy industries, which served Bosnia-Hercegovina so well that by 1958 the region could claim to be the industrial heart of Yugoslavia (Slovenia and Croatia had higher levels of industrial output but these were less strongly concentrated into the basic industries) proved almost a disadvantage in the later years. With their initial intensive build-up accomplished, the rate of expansion in the basic industries declined: electricity, coal, steel and chemicals, while all maintaining growth rates in the range 6-10 per cent, could no longer serve as engines of growth, as in the previous decade. The over-all rate of industrial growth declined as new leading sectors were slow to emerge.
After 1956 productive investment in Bosnia-Hercegovina was allowed to decline to a level scarcely exceeding that in the more developed regions. (Table A-4). At the national level, the problem of the underdevelopment of Bosnia-Hercegovina tended to be regarded as already 'solved' by the establishment of this base in heavy industry, irrespective of the existence of the manufacturing sectors which these basic industries were designed to serve, and the region was not scheduled for special assistance through the system of guaranteed investments. Moreover, with the new emphasis on development on a broader front, particularly in the consumer industries, Bosnia-Hercegovina no longer enjoyed the great advantage of its natural resources for the location of new industries. Not only was the region's need for further development unrecognised by the central authorities, but the opportunities for regional self-help, always limited by the investment system, were particularly restricted by the dominance of the heavy industries, where controlled prices depressed the rate of profit and thus local accumulation of investment resources.

The major orientation in development in the latter part of the period was the reduced importance of resource-based industries relative to manufacturing, as leading growth sectors. One new resource-based industry which emerged at this time was bauxite-mining; following several years of rapid expansion, by 1963-64 over 600,000 tons annually, half of Yugoslavia's output, were being produced within the Republic, principally in the vicinity of Mostar. Cellulose and paper, processing industries again with a strong resource-dependence, sustained their rapid expansion of the earlier part of the period to become important new growth industries. Their growth also helped the renewed expansion of the forestry and timber industries.

The engineering industries (metal manufactures and electrical
industries) occupied a central place in the strategy of diversifying industrial output away from its extreme dependence on heavy industry; while not themselves dependent on the availability of natural resources, the engineering industries derived locational advantages from the proximity of the steel and power industries. Metal manufacturing was already established as one of the region's leading industrial sectors, but its range of output was greatly extended in the later years of the period; the traditional heavy engineering products, castings, steel tubes and pipes, were increasingly supplemented by finished products, capital and consumer goods: tractors and other agricultural equipment, freight wagons, vehicle parts, motor-cycles and bicycles, typewriters and cameras. This diversification took time to effect and much of the expansion in the newer products took place only between 1961 and 1964: the output of tractors first begun in 1961, reached 1,000 in 1964, to make Bosnia-Hercegovina, along with Serbia Proper, one of the two important regional producers in Yugoslavia; with an output of almost 10,000 motor-cycles in 1964, Bosnia-Hercegovina was again one of the only two regions (the other being Slovenia) producing these. The production of electrical equipment was an entirely new industry to the region; its first output was produced in 1957, but two years elapsed before the industry attained significant size. Although the local importance of hydro and thermal electricity projects might have tempted competition in the production of turbines and generators with the established giants, Rađe Končar (Zagreb) and Elektro-Srbija, development was concentrated at the lighter end of the industry, electrical installations and commercial communications equipment, and radios, television sets, electrical heaters and boilers for the consumer market.

The industrial development of Bosnia-Hercegovina thus continued to
be strongly orientated towards markets throughout Yugoslavia, as the initial core of resource-based industries was extended to this range of related processing industries, again serving national market, but where the income elasticities of both intermediate and final demand were higher. The comparative weakness of industrial growth in the latter part of the period, due to the delay in establishing these industries, was essentially a planning failure, a failure to recognise the need for an active policy of diversification and the heavy investment requirements of a programme of diversification with entirely new types of product.

But this pattern of industrial development afforded relatively restricted opportunities for employment creation. Several of the leading industries, electricity, steel and paper, could, for technological reasons, employ only very little labour relative to the value of their output. Moreover, in the coal and steel industries in particular, the trend of technical change was so strongly towards mechanisation that the level of employment actually declined in the latter part of the period, in spite of the sustained expansion of output - employment in the coal industry declined by 0.6 per cent while output increased at 6.7 per cent, and in the steel industry, even more strikingly, by 1.9 per cent although output was growing at 9.5 per cent. And in general, production for the national market, often in competition with products from Slovenia, Croatia, and the more developed parts of Serbia, severely limited the range of production techniques which were commercially feasible and thus the volume of employment which could be generated, even without the rigidities of a national wage structure.

In an attempt to overcome these limitations to the creation of industrial employment and to bring further diversification into the
industrial structure, special efforts were made in the later years to expand the labour-intensive industries, textiles, footwear and food-processing. This, however, was designed essentially as a subsidiary part of regional development strategy; it was, in the main, dispersed and small-scale development, serving only a local market. The textile industry, for example, comprised the production of cotton, woollen and rayon fabrics, and a wide range of clothing, but with no enterprises of national importance. While inter-regional trade was not recorded, the physical volume of production in these sectors strongly suggests that Bosnia-Hercegovina remained a net importer of many products.

But even with these deliberate efforts, the rate of expansion of industrial employment was only 5.5 per cent annually, over the period as a whole, the lowest rate achieved among the regions, although Bosnia-Hercegovina was more heavily dependent than any other on industrial development.

Agriculture

The strong emphasis on industrialisation in Bosnia-Hercegovina was based not only on the region's exceptional natural resources, but on the recognition of its limited potential for agricultural development. The low level of investment in agriculture and the slow growth of production did not, however, result from a 'neglect of agriculture', or a failure to take measures to promote its development. They were, on the contrary, an 'unplanned' development, essentially the consequence of the actions of the private sector which, producing around 97 per cent of output during the 1950's and below 90 per cent only after 1961, predominated in Bosnia-Hercegovina to an even greater extent than in the more developed regions.

A considerable part of the private sector was handicapped by the
lack of both the means and the incentive to expand production. Many holdings were dwarf-size, and particularly in the extensive mountainous areas where the soil is thin and cultivation possible only with difficulty, yields scarcely exceeded the consumption needs of the household; and although the private sector was formally made eligible for loans from the Bank for Agriculture after 1954, the physical difficulties of the terrain, combined with the adverse terms of trade for agricultural relative to industrial products, discouraged investment, especially through borrowing. The private farmer was thus often trapped in a vicious circle of poverty, but one from which the only escape was not agricultural improvement but a movement into non-agricultural employment.

Bosnia-Hercegovina did, however, possess two good agricultural prospects, on which development efforts were concentrated after the Plan for 1957-61 had affirmed the essential role for agriculture in national development. As in the country as a whole, the centrepiece of policy was the extension of the social sector, by the purchase of land where the private peasant was willing to sell, and through co-operative cultivation and extension services where he would accept change, but without parting with his land. The valley of Sava with its various tributaries, in the north, was well suited to arable farming, but its efficient cultivation required larger units than were possible with the maximum land-holding and fragmentation in the private sector, and equipment and methods beyond the attainment of the peasant. Increasingly in the 1960's, as greater prosperity and the growth of employment opportunities outside agriculture made the peasant more receptive to change, efforts were made to build up arable farms in the social sector by the consolidation of private holdings in this zone.
The increased demand for meat with the growth of consumer incomes made stock-raising, for which the lower hills were well suited, a very profitable line of agricultural development. The expansion of cooperatives and their extension services were again the principal means of improving livestock strains and converting land to pasture from inefficient arable cultivation. The efforts devoted to agricultural development along these lines were considerable, and yielded good results; the level of investment relative to output in the social sector was often twice as high in Bosnia-Hercegovina as in the more developed regions, and the growth of production around 7-8 per cent annually. 1.

The poor growth performance of agriculture in Bosnia-Hercegovina was thus not a failure of the efforts at planned development through the social sector, but of their small scale and of the difficulties of the predominant private sector. The social sector represented no more than 2-4 per cent of agricultural output during the 1950's, principally because few large estates had existed to be expropriated for the original state farms; the strong independence of the Bosnian peasant, which made him cling to his small holding, and the slow growth of non-agricultural employment both impeded its expansion, with the result that even in 1964 it represented only 13 per cent of output. Thus while the small size of the social sector left considerable agricultural potential in certain zones underutilised in private holdings, the growth of agricultural output as a whole was restricted by the natural poverty of substantial areas of the region.

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1. Production in the social sector increased at 17.5 per cent, slightly over one-half of which can be attributed to the extension of its land area and the remainder to improved output per hectare.
Transport and Commerce

Transport and commerce, being essentially 'local' activities, could serve only indirectly as leading sectors: by reducing costs and bottlenecks, their expansion could improve the conditions for the development of other sectors. While recognising this, the planners tended to underestimate the converse restriction to the growth of total output presented by inadequate facilities. The emphasis on the growth of production, and in particular industrial production, as the means to development, often brought the insufficient allocation of investment funds, at the national level, to transport (especially apart from the national networks) and commerce. The more developed regions, with their greater existing capacity and lower dependence on federal funds, were able to plan and finance these developments on a more local basis, but the underdeveloped regions were often adversely affected.

Transport services had expanded, in Bosnia-Hercegovina, at 20 per cent annually, between 1947 and 1952, in support of the build-up of the basic industries. The roads and railways constructed at that time compared favourably with their primitive standard in the other underdeveloped regions. But during the 1950's, in accordance with the prevalent view that the efforts of these early years had 'solved' the problem of development, investment in transport was allowed to lag until, by the early 1960's, the facilities were proving increasingly inadequate, impeding the general expansion of production through the difficulty and expense of moving goods.

The services associated with the distribution of goods (wholesale and retail trade, and commercial services), like transport and for the same reasons, grew less rapidly than in the more developed regions.
Only tourism, within the Yugoslav definition of commerce, was a potential leading sector. But in spite of the charm of the old Turkish town of Sarajevo and Mostar, the grandeur of the Drina gorges, the waterfalls at Jajce and the Perucica national park, and the expansion of winter-sports, potential for tourism was regarded by the planners as only a very local resource, insufficiently important to form part of the development strategy of a region with three million inhabitants.

**Education and Health**

In the non-productive services, even more markedly than in the productive areas of the economy, the development of Bosnia-Hercegovina suffered as a result of its early start and its position as the richest of the poorer regions. Although the intensive development efforts of 1947-52 had brought a large increase in the level of output per head, the social services, a low priority at the time, had not kept pace; in 1953 Bosnia-Hercegovina was in the paradoxical position of being the most developed of the poorer regions, in level of output, but providing the lowest standard of social services. Yet Macedonia and Montenegro throughout, and latterly Kosmet, where the standards of provision were often higher, received budgetary assistance for these services, which was not extended to Bosnia-Hercegovina (except for an isolated special provision in 1954), although the region proved insufficiently developed to remedy the deficiencies from its own resources.

Non-productive investment in Bosnia-Hercegovina consistently represented only a fractionally higher proportion of total output than in the more developed regions, and a much lower level per head of the population. Moreover, it was consistently lower, relative to output, than in each of the other underdeveloped regions, and lower per head than
in Macedonia and Montenegro. (Table 4-14). As a result, while substantial improvements were made in many areas, the standard of service in Bosnia-Hercegovina often remained seriously deficient.

In 1953 only 46.3 per cent of the children of school age were enrolled in schools, the lowest regional proportion in Yugoslavia, but over the next twelve years Bosnia-Hercegovina achieved the largest regional increase, raising its total of pupil enrolments by 90 per cent. By 1960 the enrolment rate had been raised to 66.0 per cent, still the lowest proportion in Yugoslavia but an improvement of no less than 20 per cent of the age-group, over seven years. 1. In spite of a similarly rapid improvement in teacher supply, the pupil-teacher ratio and the number of pupils per classroom remained much the worst in Yugoslavia.

A similar deficiency in educational provision applied at all levels, enrolment rates being much lower than in the more developed regions, and often lower also than in Macedonia and Montenegro, in spite of their very considerable improvement between 1953 and 1960. (Table 4-17). The enrolment rates in higher education are less informative than the others, since universities and specialised colleges did not operate on the strictly territorial basis of the school system. In the case of Bosnia-Hercegovina, the enrolment rate understates the acquisition of higher education by residents of the Republic as many students, in spite of the rapid expansion of the University of Sarajevo, also studied in Belgrade, Zagreb and Ljubljana.

As a result of the low enrolment rates and severe overcrowding in the schools, the rapid expansion of educational provision brought disappointing results in the reduction of illiteracy and the improvement in

1. Part of the reason for the low enrolment rate was the difficulty in securing the enrolment of girls from the Republic's substantial Moslem population.
the educational standards of the population. With 40.2 per cent of the population aged over ten unable to read or write in 1953, Bosnia-Hercegovina had the worst rate of illiteracy of any region except Kosmet, and by 1961 had managed to reduce this to 32.5 per cent, a relatively smaller reduction than was achieved by any other region except Vojvodina, where the illiteracy problem was of a different order of magnitude, and leaving Bosnia-Hercegovina facing the largest problem of illiteracy outside Kosmet.

In the provision of health services the position of Bosnia-Hercegovina was very similar to that in education, achieving rapid improvements over the twelve years, but lagging well behind the more developed regions, and often behind Macedonia and Montenegro as well. With the highest birth rate outside Kosmet, and the death rate declining more rapidly than the birth rate, Bosnia-Hercegovina experienced a rate of population increase of 1.8 per cent a year, exceeded only by Kosmet and twice as high as in the more developed regions. In spite of the very rapid increase in the numbers of doctors and hospital beds relative to the population Bosnia-Hercegovina still provided a standard of service inferior only to that of Kosmet, and far inferior to the standards of the more developed regions.

The failure to provide assistance to Bosnia-Hercegovina, unlike the other underdeveloped regions, to remedy these inadequacies in the standards of the social services represented a serious deficiency in regional policy, which will have an adverse effect on future development there.
(iii) Montenegro: The Single Success

In Montenegro alone of the underdeveloped regions was success achieved in implementing the objective of regional policy, the attainment of a higher rate of growth of total output than in the more developed regions, to promote convergence in the level of output per head of the population. Success was handsomely achieved: Montenegro's growth rates were 10.4 per cent in social product and 9.3 per cent in national income (well above the 8.4 and 8.3 per cent of the more developed group), and the the highest rates achieved by any region. In the earlier years of the period the growth of social product, at 9.0 per cent, exactly matched the growth of the more developed regions, but in the later years it accelerated to the very high rate of 14.2 per cent, while all the other regions had individual growth rates between 7.7 and 9.4 per cent, and the more developed regions as a group 7.9 per cent.

But the development of Montenegro was not only Yugoslavia's smallest regional problem, but of itself an essentially small-scale problem; the population of the Republic, less than half a million people, was equivalent to that of a single industrial town or smaller county. When related to this population and the small volume of regional output, any sizeable project made a significant impact on the level of investment per head and on the investment ratio; the output of many sectors derived from a very small number of enterprises, not uncommonly only a single enterprise, and any extension of capacity could result in the rapid increase of production in the industry as a whole. The development problem in Montenegro was thus entirely different in size from that in Bosnia-Hercegovina, and development strategy involved decisions not so much on its sectoral orientation as on individual projects.
At the beginning of the period, the economic position of Montenegro, apart from the great advantage in size, appeared much less promising than that of Bosnia-Hercegovina, with which it shared certain characteristics of geography and natural resources. The only development project which had been completed in the years 1947-52 was the construction, largely by volunteer brigades, of the short, standard-gauge railway from Titograd to the Adriatic coast at Bar. Its natural resources could not make a comparable claim for the location within the region of projects of national priority. Industrial output represented 25 per cent of social product, the lowest proportion in any region; even the largest sectors, the timber industry and the mining of lead and zinc ores, were of little consequence, and the remainder of production was on a very small-scale, often handicraft, basis. Agriculture, the largest sector, was carried on with primitive methods on often barren soil.

But although the level of development obtained was low, several projects were under construction which, through the scale effect from the low level of social product, resulted in total gross investment in Montenegro in 1953-54 even exceeding the value of regional output. The recently designated capital of the Republic, Titograd was rising as virtually a new city: the steel mill under construction at Nikšić absorbed 36 per cent of productive investment, rail, road and harbour extensions 21 per cent and electricity supply (predominantly the Gornja Zeta hydro scheme) a further 13 per cent. These investment projects gave rise to a large volume of construction activity; in the country as a whole the construction industry represented 7.0 per cent of total output, but in Montenegro no less than 23.0 per cent, a proportion almost as high as that for the whole of industry. In 1953-54, therefore,
Montenegro was very much an underdeveloped region, but because of its small size the few projects already under construction were making a substantial impact on regional output, even before being brought into production.

With this very low initial level of output, particularly in industry, the beginnings of development yielded many extremely high rates for production in Montenegro. Industrial output as a whole expanded at 20.5 per cent annually, and only one of the twenty industrial sectors failed to expand at over 10 per cent a year; transport grew equally rapidly, at 20.8 per cent; in agriculture, commerce and construction, on the other hand, Montenegro had among the lowest regional growth rates. Its very successful growth of total output thus derived almost exclusively from industry and transport.

**Industrialisation**

It is possible to interpret the industrial development of Montenegro in the first half of the period as following the concentration of the country as a whole on the build-up of the basic industries, as the two sectors, electricity and steel, jointly absorbed between 70 and 80 per cent of the region's industrial investment in the years 1953-57. But this build-up of the basic industries in fact comprised only two projects, the Gornja Zeta hydroelectric scheme and the Nikšić steel-mill; the Gornja Zeta project had been launched under the 1947-52 Plan, as part of its drive for the electrification of the country, but the steel-mill was not planned or located primarily to promote the development of Montenegro.

In 1949 when military invasion from Eastern Europe was feared, the country's steel capacity, in Slovenia and Bosnia, was felt to be
vulnerable to air attack, and Nikšić selected as the site for a steel-mill on the strategic grounds of its distance from potential attackers and the opportunities for anti-aircraft defence afforded by the surrounding circle of mountains. It was designed as a small-scale project, with a capacity of 135,000 tons, for the production of special steels, particularly for armaments. Much of the equipment was obsolete even before it was installed, being pre-war German equipment obtained as reparations. From the economic point of view, the nature of the project, its location and its equipment were all open to strong criticism: the Montenegrins themselves were opposed to the project, but strategic considerations prevailed.

Although investment began in 1951, the mill came into production only in 1957. Its contribution to industrial output rose from 10 per cent at that time to over 20 per cent in 1963-64, making it the most important enterprise in the region in the latter half of the period. Worked at full capacity the mill was claimed to be able to cover its costs, but its specialised output and high costs of production made capacity-working difficult to ensure; its persistent losses gained it a nation-wide reputation as an example of a badly-located and inefficient project in an underdeveloped region, a reputation scarcely justified, as the steel-mill was initially a strategic rather than a development project, although subsequent extensions to its capacity have been made.

While these two projects continued under construction, other industrial sectors were expanding rapidly, but started from such a small base in 1953 that even by 1958 they did not represent any substantial volume of industrial production. Timber and non-ferrous ores still provided almost half of Montenegro's industrial output and the only
regional exports of any note. Of the rest, the coal industry was typical: its output increased six-fold over the six years to represent 6.1 per cent of industrial output in 1958, but only one small mine, at Plevlja, was involved, and its output barely met regional requirements.

The second half of the period, however, brought a further acceleration of industrial growth, to 24.6 per cent annually, and industrial production became significant in both volume and range. Its sectoral pattern closely resembled that of Bosnia-Hercegovina, as a consequence of the regions' similar resources. With the activation of the investment of the previous years the electricity and steel industries both made major contributions; the bauxite mines opened up near Nikšić became one of the principal sources of national output of this material in the later years; a large cellulose and paper mill, using local timber, was brought into production, at Ivangrad, in 1964.

These resource-based industries were supplemented by a range of manufacturing activities in the engineering and chemical industries. But lacking the extensive heavy-industry base of Bosnia-Hercegovina and facing greater transportation difficulties, the products of Montenegro tended to be of small size and from the lighter end of the sectoral range: small items of machinery and machine parts, metal containers, electric lamps, domestic refrigerators, plastics and soap. Particularly between 1962 and 1964 the traditional consumer industries, textiles, footwear and food-processing, were also strongly expanded.

Much of this manufacturing production served the local market only, replacing former household or handicraft production and meeting the new demands resulting from higher incomes. Two enterprises in particular

1. Chapter 5 (ii).
were, however, notable exporters: 'Obod' of Cetinje which, with an output of 66,600 domestic refrigerators in 1964 made Montenegro the largest regional producer in Yugoslavia, sold a substantial part of its output in the national market, and 'Oro', the footwear enterprise, marketed its products throughout Yugoslavia and also abroad.

Without information on inter-regional trade, it is not possible to make a firm comparison of the degree of export-orientation in the fairly similar development patterns of Bosnia-Hercegovina and Montenegro. A smaller region can, in general, be expected to have a greater dependence on trade, but the natural isolation of Montenegro encouraged self-sufficiency; the rather lower importance of the resource-based and heavy industries relative to the consumer industries, and the greater diversity of manufacturing output suggest that the development of Montenegro may have had a larger 'local' element, while in Bosnia-Hercegovina it was more 'national' in orientation.

But this successful expansion of industrial production in Montenegro was achieved at considerable cost. Investment was sustained throughout the period at a much higher level than would have been possible from local accumulation without very substantial external assistance. In part, the level of investment wasaggerated by the scale effect, as would occur in a county where major transport improvements were being made simultaneously with the building of a number of new factories. But in spite of the region's small size, its industrial development was extremely diversified; by 1964 every sector, except petroleum, was represented, a position exactly comparable to that of Serbia Proper, while the larger and more developed region of Voivodina had a less complete industrial structure. The evidence against such diversification, the subsidies paid
to unprofitable enterprises, is given only in hints and inferences from officials and economists, but as the locational pattern will also suggest, a strategy involving greater concentration might well have achieved at least comparable results at lower investment cost.

Tourism

While industrialisation remained the centrepiece of development strategy, the tourist industry came to prominence in the early 1960's. An essential condition for the exploitation of Montenegro's exceptional natural potential, the provision of easy access, was progressively realised at that time, with the construction of the Magistrala, the highway running the length of the Yugoslav Adriatic coast. The growth of consumer incomes and the improved standard of living with the success of the 1957-60 Plan brought an upsurge of domestic demand at the same time that balance of payments difficulties were prompting national support for measures to attract foreign visitors.

This combination of favourable circumstances encouraged the allocation of an increasing volume of investment for hotels, restaurants, petrol stations and facilities for transport and entertainment to develop a number of resorts, among which Sveti Stefan and Budva, in particular, gained international reputations. In 1964 331,000 tourists (over three for each five members of the local population) spent over two and a half million nights in Montenegro: 65,000 of these were visitors from abroad, where only 19,000 had come in 1960. While figures are not available, tourism almost certainly became Montenegro's largest source of 'export' earnings.

Agriculture

The agricultural potential of Montenegro was poor and agricultural improvement only in a minor way an objective of the Republican planners. The small area of arable land available lay in the central plain of the Moraca, and to extend and improve it would have required heavy investment. In the early years of the 1947-52 Plan it had been proposed, as a joint project with Albania, to reclaim 20,000 hectares around Lake Scutari 1 for cotton-growing, but the Cominform troubles terminated this plan and the necessary political cooperation was not subsequently feasible.

The central plain was suitable for the growing of fruits and vegetables, notably figs, olives and vines, and the less barren parts of the mountains for stock-raising. The social sector consistently received generous allocations of investment funds to promote more efficient production, but its activities were limited essentially by the nature of the terrain, and even in the 1960's it was contributing just over 10 per cent of agricultural output. For many of the private peasants, with tiny holdings perched on barren mountainsides, only the abandonment of the holding for employment outside agriculture offered any prospect of an improved livelihood.

As in Bosnia-Hercegovina, therefore, agriculture was not 'neglected'; efforts were made, in spite of the handicap of the small size of the social sector, to exploit the limited potential available. But a large part of the region's 'agriculture' represented a subsistence way of life, for which development had to be promoted through other activities.

1. This lake lies two-thirds in Yugoslavia and one-third in Albania.
**Employment**

In the growth of output Montenegro thus succeeded where Bosnia-Hercegovina failed. Neither region matched the growth rates achieved by the more developed group in every sector; in agriculture, commerce and construction, representing approximately half of total output, they lagged behind. But industry in particular, and also transport, expanded sufficiently rapidly in Montenegro to more than offset the deficit on the other sectors and on population growth, and begin to narrow the gap in income per head.

Montenegro was also markedly more successful than Bosnia-Hercegovina in implementing the employment objective of development policy. Employment outside the private sector of agriculture expanded at 6.6 per cent annually, and in industry at 12.6 per cent, the latter being much the highest rate among the regions. (Table 4-11). The more rapid growth of industrial employment in Montenegro did not derive only from its higher growth of industrial production, at 20.5 per cent against 12.4 in Bosnia-Hercegovina; the coal industry, which was small, and the relatively new and specialised steel industry were both major sources of new employment until the end of the period, escaping the contraction of the labour force which was such a handicap to the growth of industrial employment in Bosnia-Hercegovina, and the greater importance of light engineering and the traditional consumer goods in the industrial structure also furthered the expansion of employment. But the planners in Montenegro, like those in Bosnia-Hercegovina, laid little emphasis on labour-intensity in industrial development as an objective in itself, and when they did, it was through the choice of sector rather than of technology; in general, they relied on the high rate of industrial expansion to bring a rapid
growth of employment, only occasionally using smaller projects in the consumer industries specifically to create employment in more remote localities.

Output per worker in Montenegro improved, by 1964, to three times its level of 1953, much the highest improvement among the regions. The decline in employment in agriculture and its very rapid increase in industry resulted in the structural shift contributing 41 per cent of this, a substantially larger proportion than in Bosnia-Hercegovina or the more developed regions. (Table 4.12).

Within industry also, Montenegro achieved not only the highest growth of employment but the highest increase in output per worker. (Table 4-13). The smaller disparities in output per worker between industrial sectors than between agriculture and industry reduced the opportunity for a productivity gain from a shift in the sectoral pattern of employment, but Montenegro nevertheless derived 16 per cent of its increased productivity, one of the highest regional proportions, from a structural shift. The expansion of other industrial activities reduced its early dependence on the low-productivity timber industry, while the standardised index indicates that its sector-by-sector improvement in productivity, of itself substantial, was rather less than that achieved by Bosnia-Hercegovina.

Education and Health

The Montenegrins have long enjoyed a high reputation for their abilities and achievements; many people in Yugoslavia indeed will claim that Montenegro has benefitted from exceptional development efforts partly as a result of the qualities of its planners and the number of Montenegrins in positions of importance in Belgrade. The early develop-
ment of widespread schooling, independent of economic development, was a sociological characteristic which the Montenegrins shared with a number of Europe's small nationalities. In 1953, when economic development had scarcely begun, 68.4 per cent of children were enrolled in schools, a level not only more typical of the developed than the backward regions, but exceeding that for economically advanced Croatia and Serbia Proper; the position in teacher supply was also one of the most favourable in Yugoslavia. The enrolment rate in higher education appeared very low (Table 4-17) but this reflected the lack of institutions rather than the lack of education. Although several faculties were established in Titograd by the middle 1960's, a large proportion of the most able Montenegrin students continued their studies in other parts of Yugoslavia. In higher education, no less than in literacy and other levels of educational attainment Montenegro was notably the most advanced of the underdeveloped regions. (Table 4-18).

These educational attainments were not, however, paralleled by health standards. The death and infant mortality rates compared well with those for the more developed regions, but the birth rate, while the lowest among the underdeveloped regions, was still, without doubt, typical of a backward rather than an advanced region. Montenegro was poorly supplied with doctors in 1955, a position which had only slightly improved by 1964. The supply of hospital beds, however, was considerably better, comparing favourably with the other underdeveloped regions and with all but the best-equipped of the richer regions. The deficiency in medical provision was thus one of qualified personnel rather than of facilities, a difficulty closely related to the geographical remoteness of Montenegro at a time when the national shortage of medical personnel
was tending to produce a concentration of doctors in urban centres to the detriment of more remote or rural areas.
Macedonia, intermediate in both size and level of development between Bosnia-Hercegovina and Montenegro, followed a development strategy very different in orientation from their almost exclusive emphasis on industrialisation. Its centrepiece was integrated agricultural and industrial development, with industrial development concentrated on light industry, particularly textiles and food-processing, rather than heavy industry and engineering. This was, again, resource-based development, but, lacking the mineral and timber resources of the other regions, the planners recognised as Macedonia's principal resources its fertile soil and Mediterranean climate of hot summers and mild, wet winters. Wide areas of the Republic, especially the plain of the Vardar, offered opportunities for arable farming and the growing of cotton, fruits and tobacco, far superior to those of the Morava plain or even in many respects, the Sava valley in Bosnia. Development was therefore organised around irrigation and agricultural improvements, the cultivation of food and industrial crops and a range of textile and food-processing activities. The consumer industries, as leading sectors serving the national market, played an essentially different role from that of expanding and dispersing industrial employment as a subsidiary part of the industrialisation programmes of Bosnia-Hercegovina and Montenegro.

Over the twelve years 1953-64 social product in Macedonia increased at 8.1 per cent, and national income at 7.9 per cent, rates virtually identical with those of Bosnia-Hercegovina and only fractionally below the more developed regions; since the rate of population increase in Macedonia, the lowest among the underdeveloped regions, barely exceeded that for the more developed group, the adverse margin in the growth of
output per head, at 0.4 per cent per year, was slight, but nevertheless represented a failure of the policy of convergence.

Agriculture

Macedonia was second only to the great agricultural region of the Vojvodina in the proportion of its investment which it directed into agriculture, a proportion often half as large again as in the country as a whole. Much of this was 'infrastructural' rather than direct investment; control of the highly variable water-flow on the Vardar, together with irrigation and land reclamation, improved over 100,000 hectares of agricultural land throughout the Republic, most notably in the plain of the Vardar and its tributaries, around Lake Prespa, in the south-west, and in the north, in the vicinity of Kumanovo. The irrigation projects, with their requirements for dams and reservoirs were on occasion, as at Lipkovo (near Kumanovo) integrated with hydro-electric schemes.

The social sector, as always, was regarded as the principal vehicle for agricultural improvements, the state farms by the example of their organisation and mechanisation, and the cooperatives by encouraging joint production and the acceptance of better methods. While the private sector still predominated, the social sector increased its share of agricultural output from 6 per cent in 1953-54 to 23 per cent in 1963-64, a figure still well below the 43 per cent of Vojvodina but twice as high as in Bosnia-Hercegovina or Montenegro: and in production for the market and of many of the major agricultural products its importance was much greater.

The acreage devoted to asble farming remained approximately constant, at 40 per cent of the agricultural area, throughout the period, but the crop pattern changed: the production of wheat, often on the state farms,
was considerably expanded, mainly at the expense of rye, as the familiar preference for wheat flour, associated with rising incomes, became evident in Yugoslavia.

Fruits were a major speciality; apples, pears, peaches, apricots and grapes of excellent quality were grown in large quantities in the orchards and vineyards of Macedonia; Macedonian peaches and the apples of Tetovo, in particular, enjoyed national reputations. This quality was achieved, moreover, with a higher yield per tree than in any other region. Over 80 per cent of the orchards and vineyards were in the social sector, where pest control and the improvement of strains made an important contribution to quality.

The traditional staple industrial crop of Macedonia was tobacco, of which it continued to be Yugoslavia's major producer: about half of the national output was grown in Macedonia, and the remainder, in minor quantities, in each of the other regions. The private sector provided much of the output, which required relatively little land but considerable labour, and could be grown on small plots of poorish soil.

The newly irrigated areas, with their abundant and controlled water supply, were particularly suitable for the growing of cotton and rice, both products in which Macedonia produced virtually the entire national output. Over 11,000 hectares were devoted to cotton-growing, and, although the yields were not high by world standards, Macedonia did produce sufficient for the requirements of its own industry, but with little surplus for export to the rest of Yugoslavia.

This programme of agricultural development yielded mixed results. Over the period as a whole the trend rate of increase of agricultural

production was 3.5 per cent, lower than in each of the more developed regions, notably lower than the 4.9 per cent achieved in Vojvodina which offered the closest comparison, and only equal to the rate of growth in Bosnia-Hercegovina where agriculture was a low priority in development strategy. (Table 4-4). In the earlier years, its rate of expansion, helped by the irrigation improvements, was consistently good. But this early success was followed by a sequence of lean years, the harvest of 1959, of itself good, but without attaining the record levels of most of Yugoslavia, was followed by three successive disappointing years in 1960-62, and not until 1964 did output clearly surpass its levels of 1957 and 1959. Grain and tobacco were the most affected, while fruit harvests continued to improve. In the case of grain, the expansion of wheat production was not adequately offsetting the decline in other crops, partly simply as a result of poor harvests, possibly also through temporary difficulties arising from the switch, particularly to hard wheat. In retrospect, this lagging of agricultural expansion appears to have been only temporary, and in 1964-66, with a sequence of good harvests, Macedonia firmly re-established its position as a leading agricultural region; in the interim, however, it had important effects. It resulted in a decline in the rate of growth of total output in Macedonia in the latter half of the period when the other underdeveloped regions were improving their growth rates (Table 4-9), and helped to prompt a major reorientation of development strategy at the end of the period.

Industry

These products of Macedonian agriculture were made the basis for the development of a wide range of processing and manufacturing industries, an industrial orientation strikingly different from that for the country
as a whole. The textile, footwear, food-processing and tobacco industries absorbed 22.7 per cent of industrial investment in Macedonia in 1953-54, by contrast with 7.4 per cent in the country as a whole, and 1.7 per cent in both Bosnia-Hercegovina and Montenegro; textiles alone took 16.8 per cent, against 3.4 nationally, 0.8 in Bosnia-Hercegovina and virtually nothing in Montenegro; a similar differential persisted until the last two years of the period, even with the increased emphasis in other regions on the expansion of these consumer industries. (Table A-5).

The textile industry, based on local raw materials, was developed on a broad front. Among the various cotton spinning and weaving enterprises established, the large combine Makedonka (at Štip) became one of the show-pieces of Macedonian development for its large-scale production and up-to-date equipment. The production of woollen fabrics, although remaining much smaller in volume than cotton textiles, expanded rapidly in later years, when the cross-breeding of Macedonian sheep with merinos increased the volume and quality of local supplies of raw wool. Silk fabrics too were produced, from the thread of silk-worms reared in the south of the Republic. A considerable part of this textile production was sold in other parts of Yugoslavia.

The leather and footwear industries, although locally prominent, were of much less importance, the deficiency of the Republic as a whole in dairy-farming and stock-raising providing only limited supplies of hides.

An extensive food-processing industry was built up, based on the region's agricultural produce. Fruit-canning and preserving, and the preparation of fruit syrups and juices became a particular speciality, with Macedonia supplying sometimes one-quarter of the national output
and brand-names such as 'Jagoda' becoming household words throughout Yugoslavia. A later development, but one which made a most promising start, was sugar-refining (and the production of confectionery) from locally grown sugar beet. Less successful, however, was the specialisation in the production of bulk, low-quality wines, for which the slow expansion of demand contrasted unfavourably with that for the export-quality table wines of Slovenia.

The old staple, tobacco-processing, which had contributed no less than 57 per cent of the value of industrial output (with tax) in Macedonia in 1953-54, continued to be of great importance, although expanding only slowly; its rate of growth, at 3.8 per cent per year over the period as a whole, was the lowest of all the industrial sectors (apart from the tiny and declining coal industry). In 1963-64, however, it still represented 22 per cent of industrial output, and a major regional export.

But this dominance of the consumer industries did not leave the raw material and engineering industries unrepresented. As in the other underdeveloped regions, electricity absorbed large amounts of investment, particularly in the early years, but was an essentially local industry. The mining of non-ferrous ores had begun, on a small scale, even before the War, and, following the subsequent discovery of new deposits, the mining of lead, zinc, chrome and antimony, and the preparation of alloys and related chemicals, became of some importance. The exploitation of good deposits of feldspar and other non-metallic ores gave rise to the production of ceramics, china and glass-ware as a further regional export. The engineering industry advanced from small beginnings with simple agricultural tools to water pumps and sprinklers, industrial freezing plant, domestic refrigerators, and washing machines, for local industry
and agriculture and the consumer market. In addition Macedonia became Yugoslavia's sole producer of railway brakes and largest of metal furniture.

As in agriculture, this programme of industrial development made a promising start, output increasing at 16.8 per cent per year between 1953 and 1958, the textiles and food-processing industries in particular achieving notable growth rates. In later years, however, the dominant industries, textiles, food-processing and tobacco all expanded much more slowly and, although the newer industries, engineering and chemicals, improved their growth rates, the growth of industrial production as a whole declined sharply; at 10.3 per cent it was the lowest among the underdeveloped regions, and just equal to that of the more developed regions.

Macedonia, which failed by only a small margin to match the growth of total output achieved in the more developed regions, failed essentially as a result of the handicap imposed by its structure of output. The Macedonian economy was heavily dependent on two sectors, agriculture and the tobacco industry, which contributed 57 per cent of its total output in 1953-54 and 41 per cent even in 1961-62; these were the two sectors which recorded the lowest growth rates in the country as a whole, and in no region did they compare with the rates of 10-20 per cent achieved in many other sectors. The handicap of this dependence on the national low-growth sectors was made worse by the failure of Macedonia to equal the sectoral growth rates achieved in the more developed regions, recording 3.5 per cent against 4.1 per cent in agriculture, and 3.8 against 4.3 in the tobacco industry. The Macedonians thus only just fell short of the growth of total output attained in the more developed regions, against
the handicap of an output structure dominated by the two sectors with the lowest growth rates nationally.

A New Orientation

Faced by the slackening of industrial expansion in the later years of the period and the disappointing results in agriculture in 1960-62, the Macedonian planners began to doubt the effectiveness of their policy of integrated agricultural and industrial development. The gains from agricultural improvement appeared slow and unreliable; the income elasticity of demand for their principal products was liable to be low, as was already evident in the case of tobacco (although part of its slow growth derived from the poor crops of 1961-62); as other regions, following the reorientation of national development towards the consumer industries built up particularly their own textile industries, an adequate share of the national market could prove difficult to retain - advantages in the supply of raw materials and experience in the industry would not necessarily ensure success against subsidised competitors. To these rational arguments was added the consciousness that a development strategy based on agriculture and light industry was rather lacking in glamour.

In the early 1960's, therefore, a new industrial orientation was adopted, towards the steel and chemical industries, to introduce a more substantial 'industrial base' and advanced technology. A large new enterprise 'Acetilenka' was organised to produce chemicals and synthetic fibres, to be a 'giant' of Macedonian industry. An even larger project was the new Skopje steel-mill, with a planned capacity of one million tons.

With Acetilenka first coming into production in 1965-66 and the
steel-mill still under construction, 1. neither made much impact on the
growth of output by 1964, but their implications for the future development of Macedonia are profound. Acetilenka was established as a
representative of technologically modern industry, to break away from the
traditional pattern of consumer industries. Considerable controversy
surrounded the decision to establish the steel-mill, both the choice of
industry and its location; precise appraisal is impossible without
detailed estimates of expected costs and sales, but a number of Yugoslav
economists are known to have been opposed to the scheme in view of the
expansion simultaneously planned at Zenica and the location of the project
some 80 miles from its source of iron-ore at Kičevo, in western Macedonia,
and some 60 miles from the coke supplied from Kosmet. Both projects
require workers with technical expertise very different from that required
in the traditional light industries. Thus while some reorientation of
Macedonian industry into new lines of expansion was becoming necessary,
the best choices may not have been made.

The Skopje Earthquake

The earthquake of 26 July 1963 which wrecked Skopje, the capital
and largest city of the Republic, killing over 1,000 people and damaging
90 per cent of its houses and most factories, gave the immediate
impression of a major set-back to the development of Macedonia, when
criticisms had been made, even before the disaster, of excessive concen-
tration of the region's industrial development into the city. But
although damage to factories in Skopje reduced output in the textile,
chemical and printing industries for some months, the replacement of
industrial and domestic equipment and of stocks of all sorts which had

1. An initial capacity of 300,000 tons came into production in the autumn
   of 1967.
been lost called for a major expansion of production in many sectors. By far the greatest demand was for construction, and for more than three years a greatly expanded industry was kept fully extended in rebuilding the city. The extremely courageous and determined local efforts, combined with assistance from all parts of Yugoslavia and abroad, enabled much of the damage to be overcome in a remarkably short time, with little evident adverse effect on the development of the Republic. 1.

Employment

This strategy of combined agricultural and industrial development was particularly favourable to the expansion of employment. In the development of agriculture, the emphasis on fruits and industrial crops gave a marked bias towards more labour-intensive farming; output in the social sector increased at 13.0 per cent and employment at 10.9 per cent, while in the more developed regions a similar growth of output, 13.3 per cent, was accompanied by a growth of employment of only 8.1 per cent. Textiles, food-processing and the glass and porcelain industries were developed as 'national' sectors, where efficient production was more important than employment-creation, but were nevertheless sufficiently labour-intensive intrinsically to be major sources of new industrial employment; the rate of expansion of industrial employment in Macedonia, at 8.9 per cent annually, was the highest regional rate outside Montenegro.

A further consequence of this pattern of development was that the increase in output per worker was lower in Macedonia than in any other region except Kosmet. 2. Of this, the structural shift in employment with

1. The recovery of Skopje was so successful that the anecdote could later circulate that the Montenegrins, who had acquired a reputation for wanting anything of advantage obtained by another region, were wanting their earthquake!
2. The annual increase in Macedonia is based on the years 1953-62, in other regions on 1953-64.
the increase in industry and other non-agricultural activities and the decline in agriculture, contributed 39 per cent, virtually the same proportion as in Montenegro.

The growth of output per worker in industry in Macedonia was also relatively low, and the sustained bias towards the low-productivity sectors, combined with the relative decline in tobacco, resulted in a negligible productivity gain from the change in the industrial distribution of employment.

Education and Health

The expansion of education made rapid progress in Macedonia throughout the period, with the federal government, as in Montenegro, providing around half of the budget. As part of the establishment of political equality among the nationalities, at the end of the War, the Macedonian language had been made the official language of the Republic, and most of the teaching in Macedonian schools has since been given in Macedonian, with Serbo-Croat taught as a second language. This did not create any difficulty in teacher supply, allowing Macedonia to achieve one of the largest regional reductions in the pupil-teacher ratio. The reduction in the rate of illiteracy was also one of the largest achieved.

The most notable educational development in Macedonia was the expansion of higher education. The several small faculties which had existed in Skopje before the War, attached to the University of Belgrade were rapidly strengthened in the immediate post-war years, and in 1949 the University of Skopje was constituted as an autonomous body. By the early 1960's it had become the third largest University in Yugoslavia, with notable schools of medicine, agriculture and forestry. In 1960 the rate of enrolment in higher education in Macedonia, at 6.1 per cent of
the appropriate age-group, was second only to that of Serbia Proper, strongly favoured by the concentration of specialised institutes into the city of Belgrade, in addition to the size of the University of Belgrade. In this dynamism of university education, Macedonia far exceeded the other underdeveloped regions, in spite of lagging behind Montenegro in the provision of basic schooling. (Table 4-17).

This expansion of higher education had a direct effect on the standard of medical services through the output of qualified doctors from the Skopje medical school. The average population served by each doctor in Macedonia was reduced by over one-half between 1955 and 1964, the largest regional reduction, to already the most favourable ratio among the underdeveloped regions.
(v) Kosmet: The Neglected Region

Kosmet was, and remained, undoubtedly the most difficult regional development problem in Yugoslavia. Although Bosnia-Hercegovina and Macedonia were considerably larger in population, and Montenegro faced exceptional geographical difficulties, the extremely low level of development in Kosmet, and its unfavourable population characteristics, made the development problem particularly acute.

But the difficulties, in their fullest extent, were of relatively late origin. In 1947 Kosmet had not been much poorer than Montenegro; even in 1953, its output per head of the population was 53 per cent of the national level against 58 per cent in Montenegro. But the relative positions then diverged markedly, as total output in Kosmet increased much less rapidly, and population more rapidly, than in Montenegro, until in 1963-64 social product per head in Kosmet represented only one-half of its level in Montenegro. (Table A-1).

Economically, Kosmet was, to some extent, the better placed in the early years. Slightly smaller in land area, it produced twice the volume of agricultural production in 1953, even although the wooden plough was the characteristic agricultural implement; while Montenegro had virtually no industry, Kosmet supplied over one-quarter of the national output of non-ferrous ores and was the country's major producer of lead. But these advantages in production were outweighed by the fact that Kosmet was supporting a population of twice the size. The population problem, both in size and its characteristics, lay at the heart of the economic, as well as the political, difficulties to the development of Kosmet.

As early as 1947, the First Five-Year Plan of the Republic of Serbia had declared its intention 'to make strenuous and determined efforts

1. Chapter 1 (i), pp. 21-23.
towards the full elimination of backwardness in our Republic, particularly
in the autonomous region of Kosmet', but, under the impact of the rupture
with the Cominform, the implementation of this came to be left aside for
a number of years. Until the later 1950's, development efforts for Kosmet
were minimal; its level of productive investment, whether measured
relative to social product or per head of the population, was the lowest
among all the regions, and, in particular, substantially lower than in
the other underdeveloped regions. No developments of any consequence
were made. The mining of non-ferrous metals (notably at the lead-mines
at Trepča) continued to be the dominant, almost the only, industry,
providing no less than two-thirds of industrial output throughout the
earlier part of the period, in spite of the low prices prevailing for
metal ores, but the negligible secondary and local multiplier effects
from the exploitation of this rich natural resource prevented any impact
on the development of the region as a whole. Output per head increased
by 1.5 per cent annually between 1953 and 1958, an improvement on its
decline of 1947-52, but hardly 'the elimination of regional backwardness',
and, as alternative employment opportunities were not created for the
growing population, the problems of the sub-division of holdings and
agricultural overpopulation became even more acute.

But this position was transformed in the later half of the period.
Following the improvement of relations with Eastern Europe from 1955
onwards, 1. the development of Kosmet was accepted by the federation as
a national responsibility, and the region scheduled for special assistance
in the new Plan for 1957-61. The effect on investment was very marked;
by 1959 its level had been more than doubled, and remained one the

1. This improvement, involving specifically renewed cordiality with
Albania, is documented in Kaser (1967, p. 69-77).
highest among the regions for the rest of the period. (Table A-4). A remarkable acceleration of the growth of output followed; social product almost trebled its growth rate of the first half of the period, to 9.4 per cent, the highest rate of any region except Montenegro. A major improvement in the growth rate was achieved in every sector except agriculture, and even there some improvement was recorded.

But in a region where over 80 per cent of the active population were engaged in agriculture, a period as short as six years (1959-64) could allow only the very beginnings of a development policy to be put into effect. 'Development strategy' is perhaps too large a concept for the limited programme which could be initiated in circumstances where the problem was, essentially, where to begin.

**Industry**

The overpopulation in agriculture and the high rate of population growth made it imperative to try to create new employment outside agriculture, particularly in industry. Two very different lines of approach were adopted. Like Bosnia-Hercegovina in particular, Kosmet possessed mineral resources, lignite and non-ferrous ores, on which competitive 'national' industries could be based. But the mining and processing of these, in spite of their very favourable prospects, could not bring a major expansion of employment in the short-run. The promotion of the consumer industries was therefore adopted as a second line of attack, its products for export if possible, but essentially to replace handicraft and household production, and to both increase local incomes and serve the demands arising from them. Industrial expansion was thus sought at the two levels of 'national' and 'local' industries.

Deposits of lignite had been known for some time to exist in
several parts of the region, and a very limited amount of mining had been
carried on in the vicinity of Priština, partly for export to Macedonia,
which was deficient in sources of fuel. A detailed survey revealed some
6,500 million tons in the vicinity of Priština, and a further 4,000
million in Metohija, making, in total, almost half of the national
reserves. Being suitable for open-cast as well as deep mining, extensive
exploitation of the lignite could be quickly begun. Moreover, the
lignite, although of low thermal output by comparison with hard coals,
proved very suitable for both coking and gasification.

The first phase of the Priština project was completed between 1960
and 1962. The production of lignite was expanded to almost one million
tons annually, and a large thermal electricity generating station
constructed; the coking process was studied by the operation a pilot
plant. The second phase was then launched, and was approaching completion
by the end of 1964, trebling the output of lignite and electric power,
and introducing a full-scale coking plant. The two processing projects,
involving substantial weight-reduction on the unprocessed lignite with
its high ash content, were located adjacent, to minimise transport
costs. The projects from the second phase of this giant undertaking
were just coming into production by the end of 1964, and their impact
on the level of regional output, already substantial, was even more
marked in the following years. Among others, the Skopje steel-works
was later to become an important purchaser of the coke and the industrial
gas produced in the coking process. For the longer-term, a chemicals
complex based on the industrial gas, ammonia and other by-products was
envisioned. 1.

1. The Priština lignite project was partly financed by credits from U.S.
and Soviet sources and received technical assistance under the auspices
The famous lead-mines at Trepča had been opened up, with British capital, as early as 1926, and further deposits of lead and zinc (at Kišnica) and chrome (at Deva) were later discovered. The new developments in these industries were organised around the extension of processing activities in place of the export of unprocessed ores. The expansion of smelting and zinc electrolysis also afforded opportunities for developments in metallurgy and the production of chemicals, the latter first exploited through the establishment of a factory for artificial fertilisers at Kosovska Mitrovica. The chemical industry, planned as a leading sector in the industrial development of Kosmet, recorded its first output in 1964.

The main limitation to the rate at which these industries could be brought into production lay in the large amounts of capital equipment to be installed. The restriction to the expansion of the consumer industries, on the other hand, lay largely on the side of demand. While confined to familiar products, cotton fabrics and clothing, simpler styles of footwear and food products, these sectors experienced some difficulty in superseding handicraft products and securing a local market for their output. An example quoted in Priština was that of selling factory-made shoes, when the peasants had no wish to wear them; it was even claimed that a significant proportion of the new output was sold outside Kosmet, while the peasants hoarded any increase in income against the day they would be able to buy more land, still the favourite item of purchase. These difficulties were, however, expected to be only temporary, to be followed very soon by a rapid growth of demand from higher incomes and a national 'demonstration effect'.
Agriculture

The natural conditions of soil and climate were suitable for the development of an efficient agriculture in Kosmet, but the difficulties to securing the necessary technological transformation in the face of fragmented holdings, overpopulation and primitive methods were immense. The size distribution of the land holdings of agricultural households, recorded in the 1961 Census of Population revealed that Kosmet had a larger proportion of its households in each farm-size under three hectares than had Yugoslavia as a whole, while in each size over three hectares the proportion was lower. (Table 4-21). Not only were the holdings generally smaller, but the average household contained more members, 6.3 against 4.0 in Yugoslavia as a whole. Kosmet consequently had the highest regional density of population relative to its cultivated land; according to the calculations of the Statistical Office of the Republic of Serbia (Srbija, Zavod za Statistiku (1962, Table 2)) for 1960, Kosmet had 256 persons per 100 hectares, against 171 in neighbouring Serbia Proper and only 110 in Vojvodina. But in spite of the manpower applied, yields per hectare were low.

A beginning was, however, made on what was acknowledged to be the long and difficult process of improving agricultural methods. The reclamation of 27,000 hectares of uncultivated land for agricultural use and the establishment of irrigation systems for a further 15,000 hectares made the first contributions towards reducing the difficulties of land shortage and inadequate water supplies.

The principal obstacle limiting the extension of the social sector was not lack of social funds for land purchase, or even peasant reluctance to sell, but the lack of alternative employment opportunities for those who lived and 'worked' on the holding; with the prevalence of over-
<table>
<thead>
<tr>
<th>Size of Holding (hectares)</th>
<th>0.01-0.05</th>
<th>0.06-0.5</th>
<th>0.5-1.0</th>
<th>1.0-2.0</th>
<th>2.0-3.0</th>
<th>3.0-5.0</th>
<th>5.0-8.0</th>
<th>8.0-10.0</th>
<th>10.0+</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Yugoslavia</strong></td>
<td>0.4</td>
<td>3.4</td>
<td>6.2</td>
<td>15.0</td>
<td>15.5</td>
<td>23.0</td>
<td>18.1</td>
<td>6.7</td>
<td>6.7</td>
</tr>
<tr>
<td><strong>Kosmet</strong></td>
<td>0.7</td>
<td>3.6</td>
<td>8.2</td>
<td>19.5</td>
<td>17.5</td>
<td>22.1</td>
<td>14.7</td>
<td>4.7</td>
<td>5.5</td>
</tr>
</tbody>
</table>

Each figure is a percentage of the total number of holdings.
population, many of these could not feasibly be taken into the labour force in a cooperative. In the interim, the peasants were encouraged to use the services offered by the cooperatives to acquire higher-quality inputs and better methods. Stock-raising and the growing of vegetables and industrial crops, such as sugar-beet, were especially encouraged, being more labour-intensive than arable farming, and contributing to the food-processing industry and thus to the expansion of industrial employment.

But the large number of small peasant producers and their low levels of education made the dissemination of improvements in this way a slow and difficult process; the peasants, for example, who had been persuaded to invest in better quality livestock still required continual guidance on correct feeding, while even irrigation was impeded by the number of individual holdings and the interspersion of crops requiring watering at different times.

These many difficulties made the transformation of agriculture a long-term process, and partly dependent on the success of development policy in other sectors. But at least over the first few years the expansion of agricultural output was improved, and maintained at a rate more rapid than the increase in population.

**Employment**

In Kosmet, to an even greater extent than in the other underdeveloped regions, the expansion of non-agricultural employment and the reduction of overpopulation in agriculture was an urgent objective. The two major lines of industrial development had, however, conflicting implications for this.

The coal and non-ferrous metal industries, in exactly the same way
as the coal and steel industries in Bosnia-Hercegovina, for technological reasons expanded their production with relatively little expansion of employment; the coal industry, in the latter part of the period, increased its output at 36 per cent per year, but employment at only 7 per cent; the situation was even more extreme in the non-ferrous metal industry (mining and smelting) where output increased at 5.0 per cent while employment declined at 1.1 per cent. These industries could make a major contribution to the expansion of regional employment in the longer-term only indirectly, through their multiplier effects and the stimulus to ancillary activities.

The textile, food-processing and tobacco industries, on the other hand, were not only labour-intensive, but the growth of employment in them in Kosmet was more rapid than the growth of output; the resulting decline in average output per worker derived not from reduced efficiency in established lines of production, but from a deliberate bias towards expansion in the more labour-intensive products. Even in a region as backward as Kosmet, at no point was a deliberate choice made of obsolete technology, as has been done in the Indian textile industry in similar circumstances; as a member of the staff of the Planning Office of Serbia commented, 'we don't dare'.

This expansion of employment in the consumer industries, which had been negligibly represented in 1953 when industrial employment was concentrated into the non-ferrous metal industry, not only gave Kosmet the lowest growth of output per worker in industry, but resulted in a negative contribution to average industrial productivity from the structural shift in employment; this negative structural component was equivalent to 17 per cent of the increase achieved. Even with the low level of industrial productivity, however, the difference in output per worker between agriculture and industry was sufficiently large for the
structural shift in total employment to contribute 40 per cent of the growth of labour productivity in the economy as a whole.

But the many high rates of increase of employment in individual sectors were not sufficient to prevent a substantial increase in the numbers 'employed' in agriculture. In this respect, absolute numbers give a better impression than rates of increase; in 1964 industrial employment reached 56,000, while 250,000 workers were still engaged in agriculture, 4-5 for every one in industry. In that year also 6,100 new jobs were created outside the private sector of agriculture, when the natural increase of the population was around 30,000. Development policy was thus playing only a mitigating role, while agricultural overpopulation became still more acute; in this respect, the development of Kosmet had scarcely begun.

Education and Health

The development of the social services in Kosmet, like that of the productive sectors, passed through two phases. In the early years, standards were extremely low, help from outside very small, and local resources inadequate to make a serious attack on the problem. After 1957, with federal assistance, large-scale efforts were made, but the period until 1964 was too short for many improvements to be registered.

Between 1953 and 1956 non-productive investment represented less than 8 per cent of social product, a figure approximately equal to that in the more developed regions, but only half of that in Montenegro, all regions where the problems were much less acute. (Table 4-14). The educational levels of the population in 1953 were extremely low; 54.8 per cent were illiterate, 73.3 per cent had received no schooling, only 4.3 per cent had proceeded beyond four-year elementary schooling; less than
half of the children of school age were enrolled, and at an average of 42 pupils per teacher. Most of these figures were the worst in Yugoslavia.

The rapid increase in non-productive investment after 1957 did, however, enable considerable progress to be made. The number of schools, teachers and pupils all improved, with the result that, already by 1960, two children out of three were enrolled in schools, and by 1964 the pupil-teacher ratio had been reduced to 33.5. The extension of basic schooling was, however, still hampered by the continuing resistance, as in Bosnia-Hercegovina, among the substantial Moslem population to the attendance of girls at school, and by the difficulties of providing schools, teachers and transportation for the scattered population in the more remote areas, where schooling had sometimes to be confined to the summer months. The size of the educational task remaining in Kosmet was strikingly illustrated in the report by O.E.C.D. (1968, p.13), which points out that the region's rate of illiteracy in 1961 among the age-group 10-19 years was higher than in the age-group over 65 in Slovenia.

As in Macedonia, schooling was largely conducted in the language of the appropriate national minority, mainly Albanian, occasionally Turkish. This language difference, added to the social and cultural differences, was a further barrier to the recruitment of teachers from other parts of Yugoslavia to alleviate the shortage of qualified local teachers.

This scarcity of highly qualified people served both as an incentive and a constraint to the development of higher education within the region. The newly established University of Priština was progressively expanded in the 1960's by the addition of further individual faculties, and new Research Institutes accepted the training of technical personnel as part
of their function, but in both cases the difficulties of recruiting
teaching staff limited the rate of expansion, with the result that the
region continued to rely heavily on obtaining qualified people from other
regions and on sending its own students and trainees to other parts of
Yugoslavia to gain qualifications. To probably a greater extent than the
other underdeveloped regions, Kosmet sought to retain its local people
after they had gained higher qualifications, by making the student grants,
for study in other parts of Yugoslavia, conditional on an undertaking to
return to Kosmet. But even with this provision, many of the region's
qualified workers had to be recruited from outside.

The region's standards of health were, equally, the worst in
Yugoslavia. In 1955 one doctor had to serve an average of 6,000 people,
and only one hospital bed was available for the same number. Both
figures, however, were very substantially improved over the following
decade.

Birth and death rates in 1953-54 were nearly twice as high as in
the more developed regions; the death rate, however, was reduced by one-
third over the next ten years, mainly through the limitation of infectious
and endemic diseases, but the birth rate showed very little response, with
much the lowest index of decline among the regions. This resulted not only
in a high rate of population increase, 2.4 per cent per year, three times
as high as in the more developed regions, but in a very unfavourable age-
structure of the population; in 1961 42.2 per cent of the total population
of Kosmet were under 15 years of age, by comparison with 31.1 per cent in
Yugoslavia as a whole. ¹ This, in turn, required the continual extension
of schooling, to maintain, before improving, the enrolment rate.

¹ Savezni Zavod za Statistiku: Statistički Bilten 250, Table 4-1.
The difficulties involved in promoting the development of Kosmet as a result of the region's backwardness in production were thus exacerbated by very low standards of education and health, and the rapid increase and unfavourable age-structure of the population.
5. REGIONAL LOCATION POLICIES

(i) Bosnia-Hercegovina

Planning in Yugoslavia as a whole tended to be concentrated on the sectoral pattern of development, with its spatial organisation treated as a subsidiary issue, to be determined largely through decisions on individual projects. In Bosnia-Hercegovina in particular, the opportunities for an active locational policy were severely restricted in the early years by the dominance of the extractive and other resource-based industries in its development strategy; even subsequently, when diversification of the industrial structure became a policy objective, the scheduling of individual areas, but not of the whole Republic, for federal assistance impeded a unified treatment. Thus, partly following a national tendency, and partly as a consequence of its specific position, the territorial distribution of development in Bosnia-Hercegovina emerged somewhat incidentally over much of the period, and only towards the middle 1960's was an explicit and detailed policy elaborated, covering both the zoning of the Republic and its urbanisation.

The Distribution of Industry

In the earlier 1950's, Bosnia-Hercegovina had a highly concentrated pattern of industrial development; its five large towns, 1. Sarajevo, Zenica, Tuzla, Banja Luka and Mostar, contained 52.8 per cent of the Republic's industrial employment, 2. a markedly larger proportion than in the more developed regions. (Table 5-1). This high proportion derived from the prominence of the heavy industry centres, Zenica and Tuzla, in

1. Following international convention, a large town is defined as one with more than 20,000 inhabitants.
2. Forestry is excluded from industrial employment.
Table 5-1  Industrial Employment in Large Towns, by Region, 1954, 1958 and 1964

<table>
<thead>
<tr>
<th>Region</th>
<th>1954</th>
<th>1958</th>
<th>1964</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slovenia</td>
<td>34.6</td>
<td>32.9</td>
<td>37.6</td>
</tr>
<tr>
<td>Croatia</td>
<td>43.8</td>
<td>44.2</td>
<td>61.9</td>
</tr>
<tr>
<td>Vojvodina</td>
<td>40.6</td>
<td>51.5</td>
<td>45.9</td>
</tr>
<tr>
<td>Serbia Proper</td>
<td>39.6</td>
<td>47.1</td>
<td>54.8</td>
</tr>
<tr>
<td>Bosnia-Hercegovina</td>
<td>52.8</td>
<td>41.0</td>
<td>37.9</td>
</tr>
<tr>
<td>Macedonia</td>
<td>(27.6)</td>
<td>54.1</td>
<td>65.0</td>
</tr>
<tr>
<td>Montenegro</td>
<td>-</td>
<td>-</td>
<td>45.7</td>
</tr>
<tr>
<td>Kosmet</td>
<td>(7.1)</td>
<td>14.0</td>
<td>33.3</td>
</tr>
</tbody>
</table>

Each figure is a percentage of total industrial employment in the region. Large towns are those which recorded over 20,000 inhabitants in the preceding Population Census, for 1954 and 1953 the Census of 1953, for 1964 the Census of 1961.

The figures for industrial employment in Macedonia and Kosmet in 1954 are incomplete, comprising only Skopje and Priština respectively.
addition to the normal pattern of concentration into the capital and a small number of relatively distant and more local centres. (Table 5-2). But the degree of concentration then declined steeply to 41.0 per cent in 1958, while in the more developed regions it was tending to increase; only Zenica, the steel centre, expanded its industrial labour-force to any extent, and even its share in the regional total declined. Much of this dispersion originated with the resource-based industries. The largest source of new industrial employment was the coal industry, which increased its labour-force by 7,000 between 1954 and 1958; the location of coal deposits in many parts of the Republic gave rise to a number of smaller mining centres, Kakanj, Lukavac, Banovici, Travnik and others. The iron-ore mines at Vareš, the hydro-electric schemes at Zvornik and Jablanica and the thermal generating stations near the coal-fields all expanded employment outside the established population centres, while the engineering, paper, textile and food-processing industries created new industrial employment in the smaller centres, Doboj, Bihać, Brčko and Prijedor.

While the major centres were no longer so dominant by the late 1950's, the proximity of a number of the smaller centres to the large towns (Vareš, Kakanj and even Travnik to Zenica, Lukavac to Tuzla) maintained the strong geographical concentration of industrial employment, particularly into central Bosnia, while sizeable areas of the Republic remained largely unaffected by the process of industrialisation. These disparities in the level of development were one of the sources of the controversy, intermittent between 1953 and 1965, as to whether or not Bosnia-Hercegovina should be scheduled as an underdeveloped region. When it was becoming obvious, by the end of the 1950's, that the existing
<table>
<thead>
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</tr>
</thead>
<tbody>
<tr>
<td>Sarajevo</td>
<td>15 445</td>
<td>15 287</td>
<td>28 326</td>
<td>15.6</td>
<td>11.2</td>
<td>14.6</td>
</tr>
<tr>
<td>Zenica</td>
<td>13 797</td>
<td>16 892</td>
<td>15 922</td>
<td>13.9</td>
<td>12.4</td>
<td>9.2</td>
</tr>
<tr>
<td>Tuzla</td>
<td>11 222</td>
<td>11 996</td>
<td>12 730</td>
<td>11.3</td>
<td>8.8</td>
<td>6.6</td>
</tr>
<tr>
<td>Banja Luka</td>
<td>6 640</td>
<td>5 742</td>
<td>9 082</td>
<td>6.7</td>
<td>4.2</td>
<td>4.7</td>
</tr>
<tr>
<td>Mostar</td>
<td>5 256</td>
<td>5 993</td>
<td>7 418</td>
<td>5.3</td>
<td>4.4</td>
<td>3.8</td>
</tr>
<tr>
<td>Prijedor</td>
<td>na</td>
<td>1 973</td>
<td>3 087</td>
<td>1.5</td>
<td>1.6</td>
<td></td>
</tr>
<tr>
<td>Brčko</td>
<td>na</td>
<td>1 052</td>
<td>2 455</td>
<td>0.8</td>
<td>1.3</td>
<td></td>
</tr>
<tr>
<td>Jajce</td>
<td>na</td>
<td>1 281</td>
<td>2 021</td>
<td>0.9</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>Bihać</td>
<td>na</td>
<td>679</td>
<td>1 955</td>
<td>0.5</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>Bijeljina</td>
<td>na</td>
<td>324</td>
<td>1 739</td>
<td>0.2</td>
<td>0.9</td>
<td></td>
</tr>
<tr>
<td>Doboj</td>
<td>na</td>
<td>1 814</td>
<td>1 706</td>
<td>1.3</td>
<td>0.9</td>
<td></td>
</tr>
<tr>
<td><strong>All Towns</strong></td>
<td>(52 360)</td>
<td>63 033</td>
<td>86 441</td>
<td>(52.3)</td>
<td>46.2</td>
<td>44.6</td>
</tr>
<tr>
<td>Bosnia-Hercegovina</td>
<td>99 206</td>
<td>136 079</td>
<td>194 292</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The towns listed are those administratively designated as such: this is closely, but not rigorously, related to population size.
pattern of industrialisation was not eliminating economic backwardness in Bosnia-Hercegovina, the compromise solution was adopted of scheduling the poorer communes only, under the Plan for 1961-65. Federal assistance was supplemented by the Republic itself, which established a fund, financed from taxes on enterprises, to provide participations for new projects in the designated areas; this fund exactly paralleled, within the Republic, the action of the federation, in channelling resources from richer to poorer regions in the country as a whole. Neither this fund nor the federal programme controlled a large volume of investment funds; the Planning Office in Sarajevo estimated that special federal assistance amounted to around 6 per cent of total investment in the Republic during the four years, ¹ although this represented a much larger proportion of investment in these poorer areas and, for a Republic which was itself receiving low investment allocations, sufficient to be a strong influence on locational policy.

The Republic's own emphasis, supported by the federation, on the greater dispersion of development helped to bring a further reduction in the relative concentration of industrial employment in the major centres, from 41.0 per cent in 1950 to 37.9 per cent in 1964, only Sarajevo and Banja Luka increasing their shares. Half of the decline resulted from a rapid expansion in the smaller towns, ² the remainder in non-urban communities. This further dispersion was in marked contrast to the increased concentration into large centres in the more developed regions.

The sectors principally promoting the dispersion of industrial employment in the latter half of the period were timber, paper, textiles

¹. Interview, 26 September 1964.
². Towns were designated as administrative units, largely, but not rigorously, on the basis of their population size.
and food-processing. The timber industry underwent a period of renewed expansion after its relative stagnation of the preceding years; with forestry, this highly dispersed industry remained by far the largest source of industrial employment in Bosnia-Hercegovina, its 67,000 workers in 1964 considerably exceeding the numbers in the coal and steel industries combined and representing more than twice the number in all branches of engineering.

During this phase, the textile and footwear industries, with their opportunities for the establishment of small and labour-intensive factories, were greatly favoured as a means not only of diversifying the structure of industrial employment but of spreading it to more remote or impoverished localities. As Srebrić (1964, p.319) says of the underdeveloped regions as a whole, with no less applicability to Bosnia-Hercegovina,'It is quite impossible to find a small underdeveloped area which, during the years 1957-63 did not acquire a textile enterprise of some sort, or a shoe factory'. These industries are often described as 'footloose' for their weak locational dependence on proximity to sources of materials or to markets, but in Yugoslavia, and particularly in the underdeveloped regions where they were being used specifically for the creation and dispersion of industrial employment, their 'locational neutrality', as it was commonly described, was often invoked to suppress consideration of the cost and revenue implications of locational decisions. Many of these projects were in practice badly conceived and poorly located, and after several years of consistent losses incurred on them the planners were becoming convinced, by the end of the period, of the inadequacy of a policy of dispersion along these lines.

Prompted by the continuing disparities in the level of development
within the Republic, and by the failure of the policy of dispersion through the 'locationally neutral' industries, the planners of Bosnia-Hercegovina undertook a full-scale appraisal of development prospects with specific emphasis on locational aspects. The detailed study prepared by the Ekonomski Institut of the University of Sarajevo, (Hadžiomerović (1964) and Taubman (1964)) came too late to influence policy before 1964, except to the extent that some of its major recommendations had already been gaining currency in planning circles. This study is, however, designed as the basis for future spatial planning.

Its basic proposal is the division of the Republic into priority and complementary zones, the priority zone comprising the Posavina (the valley of the Sava and its tributaries in the north) and the central areas of both Bosnia and Hercegovina, in the valleys of the Bosna and Neretva, and the complementary zone the remaining mountainous areas in the east and west. The T-shaped priority zone contains half of the Republic's territory, including almost all its lowlands, and three-quarters of the population. The areas included were selected on the basis of proximity to national lines of communication, existing infrastructure, and access to raw materials and power; this designation by 'access' and development prospects rather than by existing level of output was a major new departure in development strategy, the priority zone cutting across the previous division of the Republic, by including the developed parts and two important areas, the valleys of Una and Neretva, formerly scheduled as underdeveloped. The communes in the complementary zone were no longer to receive preferential assistance, except for the provision of adequate social services, and were expected, in the long-run, to lose population.

This change of emphasis to 'access' rather than the presence of raw
materials or population as the most important locational factor in the longer-run was accompanied by the launching of a belated programme of improvements in the major transport networks, the reconstruction to standard gauge and the electrification of the old narrow-gauge railway line from Sarajevo to Ploče (on the coast) and the rebuilding of sections of the road links with Croatia and Serbia, which would be completed only in the later 1960's. 1.

Urbanisation

In spite of its early concentration of industrial employment into major centres, Bosnia-Hercegovina was, and remained, much less urbanised than any of the more developed regions, only 9.9 per cent of its population living in towns with over 20,000 inhabitants in 1953, and 12.1 per cent in 1961. (Table 5-3). The relative increase in the concentration of population into the large towns between these two dates was, moreover, the lowest among all the regions.

The initial low degree of urbanisation was associated with the rapid rise of the new centres of heavy industry, particularly Zenica and Tuzla, at a time when the allocation of funds for non-productive investment, most notably in housing, was severely restricted. The survey investigations of Čika and Stevanović (1957), covering 10 major towns in Yugoslavia in 1956, and of the Federal Statistical Office (Savezni Zavod za Statistiku: Statistički Bilten 101) covering 75 towns in 1957 both revealed a very high rate of daily commuting of workers into new urban industrial centres throughout the country; Zenica and Tuzla had among the highest rates, one worker in three, or even in two, travelling daily from the countryside, from a distance often of 30, sometimes even of more than 50, kilometres.

1. The new railway was opened in October 1966.
### Table 5-3  Degree of Urbanisation, by Region, 1953 and 1961

<table>
<thead>
<tr>
<th>Region</th>
<th>No. of Towns</th>
<th>% Urban Population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1953</td>
<td>1961</td>
</tr>
<tr>
<td>Yugoslavia</td>
<td>34</td>
<td>53</td>
</tr>
<tr>
<td>Slovenia</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Croatia</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>Vojvodina</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Serbia Proper</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>Bosnia-Hercegovina</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Macedonia</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Montenegro</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Kosmet</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

*With over 20,000 inhabitants.*
The relatively slow increase in the proportion of the populations resident in large towns in the later 1950's, when the housing shortage was becoming less acute, was the consequence of the tendency already observed (Table 5-1) for the degree of concentration of industrial (and therefore ancillary) employment into the major centres to decline in Bosnia-Hercegovina against the national trend towards an increase. The dispersion of industrial employment to smaller towns and non-urban communities resulted in a remarkably uniform pattern of expansion of the metropolis, the other large cities and the smaller towns, around an average increase in the urban population of 4.2 per cent per year. (Table 5-4).

A major difficulty to quantifying migration from its other side, of the movement out of rural areas, is the continual changing of boundaries with the progressive enlargement of the commune; in Bosnia-Hercegovina their number was almost halved by consolidation from 191 in the years 1955-58 to 106 in 1963-64.

In connection with the study of long-term locational prospects within the Republic, however, the Republican Statistical Office compiled population figures for the census years of 1953 and 1961, standardised on the basis of the communes as of 1 January 1963. This study (Bosna i Hercegovina, Republički Zavod za Statistiku (1964)) shows that while the urbanised communes gained substantially in population, some of the poorer and more remote areas suffered actual depopulation, in spite of the Republic's high rate of natural increase of the population. Of the 106 communes, eleven lost population, five in the north-west of Bosnia and six in the extreme south of Hercegovina. On the other hand, a large group of adjacent communes expanded their total population by more than
Table 5-4  Growth of Population in Towns in Bosnia-Hercegovina, 1953-61

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sarajevo</td>
<td>144 328</td>
<td>198 914</td>
<td>6 823</td>
<td>4.1</td>
</tr>
<tr>
<td>Tuzla</td>
<td>34 282</td>
<td>53 008</td>
<td>2 341</td>
<td>5.5</td>
</tr>
<tr>
<td>Banja Luka</td>
<td>36 794</td>
<td>51 158</td>
<td>1 796</td>
<td>4.2</td>
</tr>
<tr>
<td>Mostar</td>
<td>35 898</td>
<td>48 738</td>
<td>1 605</td>
<td>3.9</td>
</tr>
<tr>
<td>Zenica</td>
<td>31 298</td>
<td>44 184</td>
<td>1 611</td>
<td>4.3</td>
</tr>
<tr>
<td>Brčko</td>
<td>12 937</td>
<td>18 866</td>
<td>741</td>
<td>4.8</td>
</tr>
<tr>
<td>Bijeljina</td>
<td>15 038</td>
<td>18 423</td>
<td>423</td>
<td>2.6</td>
</tr>
<tr>
<td>Bihać</td>
<td>11 909</td>
<td>16 674</td>
<td>596</td>
<td>4.3</td>
</tr>
<tr>
<td>Doboj</td>
<td>8 997</td>
<td>13 415</td>
<td>(552)</td>
<td>(5.1)</td>
</tr>
<tr>
<td>Prijedor</td>
<td>8 237</td>
<td>11 847</td>
<td>451</td>
<td>4.7</td>
</tr>
<tr>
<td>Jajce</td>
<td>5 557</td>
<td>6 853</td>
<td>162</td>
<td>2.7</td>
</tr>
<tr>
<td>All Towns</td>
<td>345 275</td>
<td>482 080</td>
<td>17 100</td>
<td>4.2</td>
</tr>
<tr>
<td>Bosnia-Hercegovina</td>
<td>2847 459</td>
<td>3274 836</td>
<td>53 428</td>
<td>1.7</td>
</tr>
</tbody>
</table>

The figures for Doboj are affected by a boundary change.
20 per cent over the eight years; these were strongly concentrated into the industrialised belt of central Bosnia (mainly in the districts of Sarajevo and Tuzla) or else in the vicinity of other major or new minor centres, such as Banja Luka, Mostar and Poča, one of the smaller commercial and manufacturing centres. Thus, even over a period as short as eight years, a decisive migratory movement from the more remote rural areas into the vicinity of the urban industrial centres, as well as into the towns themselves, had become established, as the economic forces of attraction arising from development itself outweighed the effects of the policy of industrial dispersion.

External Migration

In spite of the strong political inhibitions to massive inter-Republic migration as the long-run solution to the regional problem, the contribution of population movement within the shorter term was accepted by the planners, perhaps even more actively at the regional than the federal level. Information on inter-regional migration is not compiled directly by the Yugoslav authorities, but can be deduced from the Population Censuses. Between the Censuses of 1953 and 1961 net emigration from Bosnia-Hercegovina totalled over 164,000 people, an average of 21,000 per year. This was the largest total to leave any of the underdeveloped regions, but a smaller proportion, 27.8 per cent, of the population increase than in Macedonia or Montenegro. (Table 5-5). The Republican planning authorities believed that migration was tending to increase in later years, with the spread of education within the Republic and the sustained expansion of employment opportunities and the reduction of agricultural over-population in the more developed regions; for the years 1961-64 the Planning Office in Sarajevo estimated net migration at
Table 5-5  Net Emigration of Population from the Underdeveloped Regions, 1953-61

<table>
<thead>
<tr>
<th>Region</th>
<th>Net Emigration</th>
<th>% of Population Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bosnia-Hercegovina</td>
<td>164 576</td>
<td>27.8</td>
</tr>
<tr>
<td>Macedonia</td>
<td>146 806</td>
<td>59.4</td>
</tr>
<tr>
<td>Montenegro</td>
<td>26 520</td>
<td>34.0</td>
</tr>
<tr>
<td>Kosmet</td>
<td>39 030</td>
<td>20.9</td>
</tr>
</tbody>
</table>
some 25,000 per year, one-third of the natural increase of the population.

If the active population is assumed to be one in three of the migrants, a proportion similar to that for the resident population, migration relieved the development problem from the provision of some 55,000 new jobs, or of 82,000 jobs if the potential activity rate among the migrants is assumed to be as high as one in two. Over the same period, 120,000 new jobs were created in the Republic, outside the private sector of agriculture, suggesting that the contribution of external migration to the reduction of underemployment was to equivalent to one-half or even more of the contribution from the development policies.

The method of compilation of the census data does not allow the tracing of the migrants' destinations, but sizeable numbers are known to have moved into adjacent Croatia and Serbia, while Slovenia offered the strong attraction of high wages. Hercegovina is noted for its long tradition of migration abroad, but this is probably more conspicuous than quantitatively important. The regional origins of the many Yugoslav migrants to West Germany in the first half of the 1960's are impossible to trace, although the Croats and Slovenes are believed to have been the groups chiefly involved. But even if the numbers migrating directly from Bosnia-Hercegovina to West Germany were small, the national movement itself helped to stimulate further internal migratory flows, emigration from Croatia and Slovenia in its turn accommodating immigration into these regions from other parts of Yugoslavia, thus strengthening the geographical mobility of the population as a whole.

While migration had to be largely spontaneous, the planners of Bosnia-Hercegovina made efforts to assist it in an active way through the

1. The number of Yugoslavs working in West Germany between 1961 and 1965-66 has been variously estimated between 150,000 and 250,000.
establishment of a number of training centres to prepare workers for jobs outside the region and, if possible, to arrange with enterprises for their employment. In 1964 about ten such centres were being operated in the Republic, and although the number of workers who could be trained in them was counted in hundreds rather than in thousands, the planners felt that their role as an example for labour mobility was an important one.
(ii) Montenegro

The geographical position of Montenegro is one of natural isolation, cut off from the rest of Yugoslavia by the ranges of the Dinaric Alps. While the build-up of the heavy industry complex had required the early provision of arterial communications in Bosnia-Hercegovina, transportation links in Montenegro were still in very poor condition in the early 1950's, and major improvements an essential pre-condition if development was to be orientated beyond the very small local market. The provision of a transport network remained one of the dominant objectives of the Republic's development strategy, absorbing very large amounts of investment throughout the period (Table A-5); the difficulties of the terrain, however, made construction a lengthy and expensive process, and even by the mid 1960's Montenegro still did not possess adequate arterial communications.

The first, and as yet only, major link to be completed was the 'Magistrala', the highway which runs the entire length of the Adriatic coast in Yugoslavia, with an extension inland to Titograd: the access which it provided made a crucial contribution to the development of tourism on the coast of Montenegro. The two principal road links across the mountains, northwards with Belgrade and Serbia, and south-east with Skopje, were considerably improved, particularly by the construction of a section of modern road from Titograd to Kolašin, and later to Bijelo Polje, well into the interior of the Republic, but even by the late 1960's neither of these was surfaced over its entire length.

The railway system of Montenegro provided essentially internal transportation only. It consists of two lines, a standard-gauge track from Titograd to Bar, and a narrow-gauge one between Titograd and Nikšić; the latter was extended, through Bileća, to link with the Dubrovnik-
Sarajevo line, also at that time narrow-gauge, but carried only a small volume of traffic.

A very large project, only now being launched after at least ten years of discussion, is the railway from Belgrade to Bar. The economic significance of this for Montenegro - and for Macedonia and Kosmet as well - will be extremely great, since it will provide the first efficient transport link between the interior of the country and the southern end of the Adriatic coast; not only will it provide much improved communications between Montenegro and the rest of Yugoslavia, but, as many of Yugoslavia's exports from Serbia and Macedonia are expected to be diverted from Rijeka to Bar, the latter should become a major trans-shipment centre. However, originally scheduled for completion in 1970, this project is already 'several years' behind, and its contribution to the development of Yugoslavia, and of Montenegro in particular, remains entirely 'perspective'.

By the mid 1960's, therefore, after years of heavy investment and construction activity, Montenegro's direct links with the interior of the country (other than by air from Titograd) comprised two roads, surfaced over parts of their length, and the promise of a railway: since half a road and a part of a railway are far from equivalent to a completed version of either, the impression is inescapable that concentration on one or other would have yielded more effective results.

The Distribution of Industry

The spatial distribution of industry in Montenegro revealed the same tendency as its structural pattern to inadequate selection and concentration. The growth of industrial employment and the accompanying urbanisation began almost a decade later than in Bosnia-Hercegovina: in the early years
construction held pride of place, preparing the infrastructure of transport and power supplies, and not until 1957 did the number of workers in industry first exceed the numbers engaged in construction.

Little of this small volume of industrial employment in the early years was concentrated into urban centres. In 1954 the timber trades and the mining of non-ferrous ores were the principal sources of industrial employment, and their locational dependence on the siting of their raw materials brought the territorial dispersion of employment. The two largest industrial centres, Titograd and Nikšić, with their ranges of clothing, food-processing and small metal industries, together contained only 18.5 per cent of the Republic's industrial employment, while Sarajevo alone contained 15.6 per cent in Bosnia-Hercegovina. (Table 5-6).

By 1958, however, this situation had undergone a major change, as the completion of the steel-mill suddenly made Nikšić the Republic's principal industrial centre, containing 28.5 per cent of total industrial employment; of the town's 3,500 industrial workers, 2,500 were employed directly in the steel project. The progressive extension of light industry allowed Titograd to double its level of industrial employment over four years, although no single project made an impact at all comparable to that of the steel-mill at Nikšić. The two minor centres, Cetinje and Kotor, were, like Nikšić, largely one-industry towns, Cetinje with 'Obod', the producers of domestic electrical appliances, and Kotor heavily dependent on small-scale ship-building and its related trades.

By 1964 the rapid expansion of industrial employment in Titograd had raised it to almost comparable importance with Nikšić, those two far

1. These had been the two largest towns of independent Montenegro (pre-1918).
<table>
<thead>
<tr>
<th>Towns</th>
<th>Numbers</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nikšić</td>
<td>569</td>
<td>3 553</td>
</tr>
<tr>
<td>Titograd</td>
<td>690</td>
<td>1 478</td>
</tr>
<tr>
<td>Cetinje</td>
<td>na</td>
<td>1 038</td>
</tr>
<tr>
<td>Kotor</td>
<td>na</td>
<td>888</td>
</tr>
<tr>
<td>All Towns</td>
<td>(1 259)</td>
<td>6 957</td>
</tr>
<tr>
<td>Montenegro</td>
<td>6 817</td>
<td>12 487</td>
</tr>
</tbody>
</table>
surpassing the minor centres of Cetinje and Kotor, and gaining the status of 'large towns'. The share of the large centres in industrial employment, 45.7 per cent, was within the range found in the more developed regions.

As in Bosnia-Hercegovina, the need for an over-all locational policy for the Republic came to be recognised, as development became more complex and less dependent on the location of natural resources. The planners therefore adopted the sub-division of the region into three areas, not, as in Bosnia-Hercegovina, scheduled as priority and non-priority zones, but each given a different development orientation. The central area, comprising the Morača valley and the three largest towns, Titograd, Nikšić and Cetinje, was envisaged as the principal location for industrial development, with heavy industry (steel and the heavier engineering products) at Nikšić, and lighter industry (textiles, light engineering, electrical appliances) at Titograd and Cetinje. Titograd was also the administrative and commercial centre. The rapidly growing contribution of tourism and its further potential prompted the designation of the coastal strip as the second development zone; while the conservation and equipping of this area for tourism were to be the main priority,¹ small amounts of industrial activity in ship-building and repairing, and engineering, were envisaged for the leading ports, Kotor and Bar. The third zone comprised all the surrounding mountains; to supplement its limited development prospects based on the mining of small deposits of lead, zinc and coal, the timber trades and the familiar 'dispersal' projects in the consumer industries, a large cellulose and paper factory was constructed at Ivangrad, which came into production in 1964.

1. In 1966 a regional planning project was announced, to develop the southern Adriatic, from Dubrovnik to the Albanian frontier, for tourism. The United Nations are to give considerable expert help.
For the smallest region in Yugoslavia, this strategy included no less than eight foci of development, four large (Titograd, Nikšić, Cetinje and Bar) and four small (Kotor and the three centres in the hinterland, Ivangrad, Bijelo Polje and Pljevlja), in addition to the coastal resorts. Many of the transport links among these were inadequate: Cetinje could be reached from Nikšić only circuitously, by way of Titograd; the differing railway guages disrupted the connection Bar-Titograd-Nikšić; Pljevlja in particular, but also Ivangrad, were remote, without good road access. Part of this tendency to the dispersion of development into centres across the entire territory of the Republic can be attributed to the lack of a clear orientation from the national lines of communication owing to the deficiencies of provision there, but in addition locationally, as sectorally, the development of Montenegro tended to include something of everything. ¹

Urbanisation

Like industrialisation, urbanisation had small beginnings, but built up rapidly with the region's economic progress in the later years. In 1953 Montenegro had four towns, all of under 20,000 inhabitants, but the two largest, Titograd and Nikšić, each almost doubled their population over the next eight years, to gain the status of 'large towns' by 1961. (Table 5-7). Their rates of expansion, 3.1 and 8.7 per cent per year, were much higher than those of any other urban centres in the underdeveloped regions. But in spite of the very rapid growth of these

¹. An extreme position on this is taken by Čolanović, at one time Director of the Institut za Ekonomiku Industrije (Institute for Research in Industrial Economics) one of the Yugoslav economists most interested in the regional problem. He has suggested (in interviews, 3 September 1964 and 24 September 1966) that the development of Montenegro would have been most effectively conducted on the basis of one centre only, at Bar, with investment concentrated on the completion of one arterial link plus the harbour at Bar, and the build-up of industrial activity.
<table>
<thead>
<tr>
<th>Town</th>
<th>Population 1953</th>
<th>Population 1961</th>
<th>Annual Increase Nos.</th>
<th>Annual Increase %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titograd</td>
<td>16 324</td>
<td>30 657</td>
<td>1 792</td>
<td>8.1</td>
</tr>
<tr>
<td>Nikšić</td>
<td>10 323</td>
<td>20 166</td>
<td>1 230</td>
<td>8.7</td>
</tr>
<tr>
<td>Cetinje</td>
<td>9 620</td>
<td>9 946</td>
<td>41</td>
<td>0.4</td>
</tr>
<tr>
<td>Kotor</td>
<td>7 148</td>
<td>8 572</td>
<td>173</td>
<td>2.3</td>
</tr>
<tr>
<td>All Towns</td>
<td>43 415</td>
<td>69 341</td>
<td>3 241</td>
<td>6.0</td>
</tr>
<tr>
<td>Montenegro</td>
<td>419 873</td>
<td>471 433</td>
<td>6 445</td>
<td>1.5</td>
</tr>
</tbody>
</table>
two new cities, Montenegro remained the least urbanised of all the regions of Yugoslavia. (Table 5-3).

The frequent changes in commune boundaries make it impossible to ascertain whether this rapid process of urbanisation was accompanied by depopulation in other areas. Such a decline appears highly probable, since Titograd and Nikšić together recorded a net increase of 24,000 inhabitants (out of 52,000 in the Republic as a whole) although the tendency to the geographical concentration of population, apart from the movement into the major centres, was a less pronounced feature of the process of industrialisation in Montenegro than in Bosnia-Hercegovina.

External Migration

The quantitative importance of migration from Montenegro was considerably less than intuitive impressions of the numbers and influential position of Montenegrins in other parts of Yugoslavia might suggest. Between 1953 and 1961, net migration from the Republic amounted to 26,500 persons, or only 3,600 per year, on average. (Table 5-5). This however was the equivalent of 34.0 per cent of the population increase over the eight years, a rather larger proportion than in Bosnia-Hercegovina. The success of development policy itself, however, was making a much larger contribution to the solution of the problem of underemployment. Over the eight years 24,900 new jobs were created outside the private sector of agriculture, representing between two and three, depending on the assumption about the activity rate among the migrants, for each potential employee who felt impelled, or attracted, to seek his fortune elsewhere.
(iii) Macedonia

Macedonia is largely spared the formidable geographical difficulties faced by Montenegro; while extensive areas of the region are mountainous, the plain of the Vardar links with the plain of the Morava to provide good natural access northwards into Serbia. By virtue of its strategic location on natural lines of communication, Skopje has many centuries of history as a commercial and trading centre, in contrast to the isolation of Montenegro, where the geographical difficulties of access were accentuated by political independence from, and resistance to, the Ottoman Empire, which embraced the rest of the Balkans. By 1953 it was already a city of over 122,000 inhabitants.

Skopje, moreover, although the largest, was by no means the only urban centre in Macedonia; already in 1953 the Republic ranked as the most highly urbanised not only of the underdeveloped regions, but of all the regions in Yugoslavia. Five towns, the same number as in the much more populous and more developed regions of Vojvodina, Serbia Proper and Bosnia-Hercegovina, had populations exceeding 20,000: these five — Skopje, Bitola, Prilep, Kumanovo and Tetovo — contained 18.1 per cent of the population, although the Republic was still overwhelmingly agricultural and rural. (Table 5-3).

The Distribution of Industry

The concentration of industrial employment into the large centres was equally marked. In 1954 Skopje alone (the only town for which figures are available) contained 27.6 per cent of industrial employment, a figure matched, among the regional capitals, only by Belgrade relative to Serbia

1. It was already, in pre-Roman times, the chief city of Illyria, and later of the Roman province of Moesia Superior.
This concentration was not a phenomenon of the very early years of development or of a special position of Skopje; Skopje itself maintained its share of industrial employment virtually unaltered until 1964, and the other large centres all contained sizeable, although lesser, shares. (Table 5-8). In 1958 the five towns which had gained urban status in 1953 contained 54.1 per cent of industrial employment, and by 1964 their number had risen to seven and their share to 65.0 per cent, both proportions considerably exceeding those for the more developed regions. (Table 5-1).

Both characteristics, the dominance of the metropolis and the exceptional degree of urbanisation, had historical origins, pre-dating the contemporary industrial development of Macedonia. They were, however, maintained and even furthered by the sectoral pattern of development, with its orientation towards light industry and the smaller importance of mining and the timber trades. The textile, food-processing and tobacco industries were built up in Macedonia as export rather than local industries, with a supply rather than a market orientation. Being dependent on agriculturally produced raw materials, their processing sectors tended to locate in urban centres, drawing supplies from surrounding areas. This gave rise to a network of urban centres, each based on a local agricultural area.

Each of the major centres had a similar industrial structure, although the relative importance of the individual branches varied. The textile and food-processing industries were ubiquitous: cotton textiles at Stip and Skopje, woollens at Tetovo, silk fabrics at Titov Veles, 1.27.6 per cent of the industrial employment in Serbia Proper was also located in Belgrade; the proportions for the other regional capitals were: Ljubljana 13.8 per cent, Zagreb 23.1, Novi Sad 16.5, Sarajevo 15.6, Titograd 10.1 and Priština 7.1.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Skopje</td>
<td>7,294</td>
<td>12,183</td>
<td>19,644</td>
<td>27.6</td>
<td>27.0</td>
<td>26.8</td>
</tr>
<tr>
<td>Bitola</td>
<td>na</td>
<td>3,632</td>
<td>5,362</td>
<td>8.1</td>
<td>7.3</td>
<td></td>
</tr>
<tr>
<td>Kumanovo</td>
<td>na</td>
<td>2,166</td>
<td>5,230</td>
<td>4.8</td>
<td>7.1</td>
<td></td>
</tr>
<tr>
<td>Prilep</td>
<td>na</td>
<td>3,508</td>
<td>5,007</td>
<td>7.8</td>
<td>6.8</td>
<td></td>
</tr>
<tr>
<td>Tetovo</td>
<td>na</td>
<td>2,875</td>
<td>3,972</td>
<td>6.4</td>
<td>5.4</td>
<td></td>
</tr>
<tr>
<td>Titov Veles</td>
<td>na</td>
<td>4,180</td>
<td>4,713</td>
<td>9.3</td>
<td>6.4</td>
<td></td>
</tr>
<tr>
<td>Stip</td>
<td>na</td>
<td>2,957</td>
<td>3,853</td>
<td>6.6</td>
<td>5.2</td>
<td></td>
</tr>
<tr>
<td>Strumica</td>
<td>na</td>
<td>972</td>
<td>1,875</td>
<td>2.2</td>
<td>2.6</td>
<td></td>
</tr>
<tr>
<td>Ohrid</td>
<td>na</td>
<td>118</td>
<td>1,637</td>
<td>0.3</td>
<td>2.2</td>
<td></td>
</tr>
<tr>
<td>All Towns</td>
<td>(7,294)</td>
<td>32,591</td>
<td>51,293</td>
<td>(27.6)</td>
<td>72.4</td>
<td>69.8</td>
</tr>
<tr>
<td>Macedonia</td>
<td>26,423</td>
<td>45,049</td>
<td>73,432</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>
cotton and silk fabrics at Bitola were among the largest textile projects, while sugar refining and vegetable processing at Bitola, meat-canning and packing at Strumica, fruit-processing at Tetovo and Kumanovo and tobacco processing at Prilep were among notable local specialities in the food-processing industry.

The dominance of Skopje derived partly from the historical situation already noted, and partly from the concentration there of many of the major projects from other industrial sectors, in addition to the strong representation of these consumer industries. The cement factory in Skopje, for example, was the only large one in the Republic; the porcelain and glass industry was divided between glass products at Skopje and ceramics and china at Titov Veles; the chemical industry was centred on Skopje and Tetovo, engineering at Skopje and Bitola. Skopje thus had a much more complete industrial structure than the smaller centres, tending to parallel the individual specialisations of each of them.

As a location for new industrial projects within Macedonia, Skopje possessed two outstanding advantages. Its position on the national road and rail arteries made it the natural point of shipment for regional exports northwards to Serbia and other parts of Yugoslavia, and southwards to Greece and the Middle East. While only Bitola was relatively remote (despite which it developed a successful export trade in refrigerators), all the lesser centres tended to face an additional transport haul in the shipment of their products. In addition, Skopje also certainly benefitted from economies of agglomeration deriving from its early development as a commercial centre.

Since, from the beginning, the high degree of concentration of industrial activity into major centres had been accompanied by an
exceptional level of urbanisation, the daily commuting of workers from the countryside, characteristic particularly of Bosnia-Hercegovina among the underdeveloped regions, in the mid-1950's, was not a feature of the early industrial development of Macedonia. The migration studies for 1956-57 already cited (Čika and Stevanović (1957), Savezni Zavod za Statistiku: Statistički Bilten 101) found an exceptionally low rate of daily migration into the principal towns, and only short distances involved.

**Urbanisation**

The high level of urbanisation of the population, already so marked in 1953, was maintained during the following years. By 1961 the populations of Titov Veles and Štip had passed 20,000, to give Macedonia seven large towns, a number exceeded only by Croatia with fourteen, and Serbia Proper, with twelve. 26.0 per cent of the Republic's population lived in large towns, again the highest proportion among all the regions. (Table 5-3). But the rate of increase of the urban population was only moderate; at 3.9 per cent per year, it was fractionally below the 4.2 of Bosnia-Hercegovina and well below the 6.0 per cent of Montenegro. While the rates of expansion of the individual centres lay within a relatively narrow range, the 4.3 per cent growth rate in Skopje was exceeded only by the new textile and engineering centre at Štip. (Table 5-9).

By 1963-64 this exceptionally high level of urbanisation and the related question of the concentration of industrial activity and employment in Skopje were beginning to cause concern. As with Belgrade at the national level, the process of urbanisation was running ahead of the development of non-farm activities; the movement of population from the countryside into particularly the very large urban centres was taking on
<table>
<thead>
<tr>
<th>Town</th>
<th>Population 1953</th>
<th>Population 1961</th>
<th>Annual Increase</th>
<th>Nos.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skopje</td>
<td>122 300</td>
<td>171 393</td>
<td></td>
<td>6 199</td>
<td>4.3</td>
</tr>
<tr>
<td>Bitola</td>
<td>37 564</td>
<td>49 001</td>
<td></td>
<td>1 430</td>
<td>3.4</td>
</tr>
<tr>
<td>Prilep</td>
<td>31 763</td>
<td>39 611</td>
<td></td>
<td>981</td>
<td>2.8</td>
</tr>
<tr>
<td>Kumanovo</td>
<td>23 795</td>
<td>31 845</td>
<td></td>
<td>1 008</td>
<td>3.7</td>
</tr>
<tr>
<td>Titov Veles</td>
<td>19 238</td>
<td>27 050</td>
<td></td>
<td>977</td>
<td>4.3</td>
</tr>
<tr>
<td>Tetovo</td>
<td>20 209</td>
<td>25 357</td>
<td></td>
<td>644</td>
<td>2.9</td>
</tr>
<tr>
<td>Stip</td>
<td>13 845</td>
<td>20 269</td>
<td></td>
<td>803</td>
<td>4.3</td>
</tr>
<tr>
<td>Ohrid</td>
<td>12 640</td>
<td>16 492</td>
<td></td>
<td>482</td>
<td>3.4</td>
</tr>
<tr>
<td>Strumica</td>
<td>12 149</td>
<td>15 949</td>
<td></td>
<td>475</td>
<td>3.5</td>
</tr>
<tr>
<td>All Towns</td>
<td>293 494</td>
<td>397 467</td>
<td></td>
<td>12 997</td>
<td>3.9</td>
</tr>
<tr>
<td>Macedonia</td>
<td>1304 514</td>
<td>1404 883</td>
<td></td>
<td>12 679</td>
<td>0.9</td>
</tr>
</tbody>
</table>
the character not only of a response to employment opportunities and higher incomes, but of a semi-autonomous movement out of agriculture, giving rise to the twin problems of agricultural depopulation and urban unemployment.

The agricultural population in Macedonia declined at 1.2 per cent per year between 1953 and 1961, the same rate as in the country as a whole, in spite of the Republic's emphasis on agricultural development, and this rate was believed to be accelerating in the 1960's. Sufficient reserves of underutilised manpower were still present in the countryside for agriculture not to be handicapped by a labour shortage, but concern was beginning to be expressed about the longer-term prospects for agricultural manpower, with the departure of younger people into the towns.

This fear, based on impressionistic judgements, does not yet find confirmation in the statistics of the age-structure of the population. The Yugoslav population censuses reveal that peak migration occurs in the age-groups between 20 and 35. But in Macedonia the proportion of young people, aged under 35, among those actively employed in agriculture was greater than in Yugoslavia as a whole, according to the censuses of both 1953 and 1961. Equally, the proportion aged over 50 was lower in Macedonia, in both years. (Table 5-10). Moreover, in the country as a whole the agricultural population was ageing, the proportion in the age-groups under 35 declining and that in the groups aged over 50 increasing, as younger people formed the largest part of the migratory movement out of agriculture. But this ageing of the agricultural population was less pronounced in Macedonia, where the proportion of young workers fell from 61.9 to 56.1 per cent between the census years, by comparison with a decline from 58.3 to 49.5 per cent in Yugoslavia as a whole. Contrary,
Table 5-10  Age-structure of the Agricultural Population in Macedonia, 1953 and 1961

<table>
<thead>
<tr>
<th></th>
<th>Numbers (thousands)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Under 35</td>
<td>Over 50</td>
</tr>
<tr>
<td>Yugoslavia</td>
<td>3 103</td>
<td>2 321</td>
</tr>
<tr>
<td>Macedonia</td>
<td>225</td>
<td>182</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
therefore, to the fears expressed, on the evidence available up to 1961 the agricultural population in Macedonia was not only younger than in Yugoslavia as a whole but was ageing less markedly.

The comparison of the age-structure of the agricultural population of Macedonia with that of Yugoslavia as a whole is affected by the overall youthfulness of the Republic's population, the consequence of its higher birth and death rates and shorter life-expectancy. But comparisons internal to the Republic equally fail to confirm any imminent threat of agricultural depopulation. Of the sixty-one communes at the time of the 1961 Census, twenty-five could be classified as strongly agricultural, having 70 per cent or more of their active population engaged in agriculture; in these, young people under 35 years of age comprised 71.2 per cent of the population against 69.9 per cent in the remainder of the communes. Thus even in the most strongly rural areas the migration of young people into the towns was not resulting in an age-structure of the population adverse to the future supply of agricultural manpower. 1

Urban unemployment, however, was becoming a very real problem. As early as 1962 the numbers seeking employment represented 22.2 per cent of the entire labour-force outside agriculture, against 9.4 per cent in Yugoslavia as a whole. The numbers in 1963-64 were affected by the construction work at Skopje, but in 1965 unemployment increased again sharply, until at the end of that year it stood at 47,000, 5,700 above its previous peak of 1962. 2 The proportion of women among the unemployed, 31 per cent in 1962, was markedly lower in Macedonia than the 45 per cent in Yugoslavia as a whole, as was the proportion in the labour-force in employment: had social factors not kept down the female

1. Savezni Zavod za Statistiku: Statistički Bilten 250, Table 6.
participation rate, the unemployment position in Macedonia would have been considerably worse. The relative proportions of skilled and unskilled workers were approximately the same as in the country as a whole.

Why the movement of population into the towns ahead of the availability of employment should take place so much more rapidly in Macedonia than in Montenegro or Bosnia-Hercegovina, like the early build-up of urbanisation ahead of economic development, is probably explained by sociological rather than economic factors. The pressures of agricultural poverty and population growth, which would drive people from the countryside were certainly no worse than in these other regions, and alternative employment opportunities were expanding more rapidly than in Bosnia-Hercegovina. As in the case of Belgrade at the national level, migration, particularly into the metropolis, was taking the form of a social movement proceeding ahead of economic change.

Moreover, the willingness to seek employment opportunities outside the Republic was greater among the Macedonians than among the population of any other of the underdeveloped regions. Between 1953 and 1961 a net total of almost 147,000 people emigrated from Macedonia. At 59.4 per cent of the recorded increase in the population over that period, this was much the highest rate of emigration and made the largest contribution to the reduction of the regional employment problem. Over the corresponding period 67,800 new jobs were created outside the private sector of agriculture in Macedonia, by comparison with a reduction in the potential labour-force of between 43,000 and 73,000 through migration. Migration might thus have made as large a contribution to the reduction of underemployment over these eight years as did regional development policy.
(iv) Kosmet

Relatively little can be said on the subject of locational policies in Kosmet, as even by the middle 1960's development policies for the region were still in an early stage of implementation.

The position of the region in natural communications compared more closely with the accessibility of Macedonia than with the isolation of Montenegro, although lacking the exceptional advantages of the former. The mountain barrier in the north-west, between Kosmet and Montenegro, and the poor communications across it forced an orientation eastwards towards the rest of Serbia. The national transport arteries, following the valleys of the Morava and Vardar, passed close to the region, but outside its eastern boundary, thus requiring local links, where Macedonia gained from their routes directly across the Republic.

Transport policy in Kosmet, effective in only the second half of the period considered here, concentrated on the improvement of the region's internal communications rather than the reconstruction of its external links. The existing rail connections with Belgrade and Skopje were accepted as adequate, at least for the immediate future, and no major rail projects were undertaken. But from 1958 considerable investment was devoted to road-building within the region, particularly the building of modern routes connecting Priština with Kosovska Mitrovica in the east of the region, and Peć with Prizren in the west. By the mid 1960's these roads were markedly better than the links, principally from Priština, with the Belgrade-Skopje (Podkoren-Gevgelija) highway.

The Distribution of Industry

With industry very much in the early stages of development, there was little concentration of industrial employment into urban centres.
In 1954 and 1958 exactly half of Kosmet's industrial employment derived from the mining of non-ferrous ores, which employed between 7,000 and 8,000 workers, many of them at Trepča (near Kosovska Mitrovica). The timber trades, coal-mining (not included in employment in Priština) and stone-quarrying, all predominantly non-urban in location, provided the major part of other industrial employment. In 1954 only 1,000 workers were employed at Priština, in small-scale, almost handicraft, production principally of consumer goods; representing 7.1 per cent of the region's industrial labour-force, this was the lowest degree of concentration in any of the regional capitals, and a marked contrast with the 27.6 per cent in Skopje. In 1958, for which more complete figures are available, essentially the same employment pattern prevailed, both by sector and location. The region's three large towns, Priština, Peć and Prizren, contained only 14.0 per cent of industrial employment, against 54.1 per cent in large towns in Macedonia, and mostly between 40 and 50 per cent in the more developed regions. (Table 5-1). The degree of concentration into all designated towns in 1958 moreover, is strongly biased upwards by the inclusion of employment at Trepča in the total for Kosovska Mitrovica, but is otherwise extremely low. (Table 5-11).

Even in 1964, when industrial employment had increased very substantially over its level of 1958 as new development project came into operation, the degree of concentration into urban centres remained very low, as the non-ferrous metal, coal and timber industries still provided 47 per cent of industrial employment.

Priština and Kosovska Mitrovica were already emerging as the principal foci of industrial development, with Peć and Prizren in lesser and more local roles. Priština and Kosovska Mitrovica each had located
Table 5-11: Industrial Employment in Towns in Kosmet, 1954, 1958 and 1964

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Friština</td>
<td>1 011</td>
<td>1 107</td>
<td>3 050</td>
<td>7.1</td>
<td>6.8</td>
<td>10.6</td>
<td>7.1</td>
<td>6.8</td>
<td>10.6</td>
</tr>
<tr>
<td>Peć</td>
<td>na</td>
<td>610</td>
<td>2 342</td>
<td>3.7</td>
<td>8.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prizren</td>
<td>na</td>
<td>570</td>
<td>2 079</td>
<td>3.5</td>
<td>7.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kos. Mitrovica</td>
<td>na</td>
<td>5 928(^a)</td>
<td>2 145</td>
<td>36.3(^a)</td>
<td>7.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Towns</td>
<td>(1 011)</td>
<td>8 215(^a)</td>
<td>9 616</td>
<td>(7.1)</td>
<td>50.3(^a)</td>
<td>33.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kosmet</td>
<td>14 161</td>
<td>16 321</td>
<td>28 875</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^a\) Includes employment at Trevoča
in their vicinity one of the major groups of projects planned as the region's industrial and export base, the lignite, coke and chemicals scheme at Priština, and the industries based on the non-ferrous ores at Kosovska Mitrovica. The industrial developments at Peć and Prizren, on the other hand, were on an altogether smaller scale, and aimed much more at the local market; of these the perlon factory under construction at Prizren in 1964-65 was the most important.

The urgency of the employment problem brought the expansion of the consumer industries in all the urban centres, the food-processing industries being particularly encouraged in Metohija, with its more prosperous and socialised agriculture; the leading projects included the textile and clothing industries at Priština and Prizren, leather goods and footwear at Peć, the production of flour, jam, meat and tobacco products at Prizren, and sugar-refining and vegetable-processing at Peć.

Urbanisation

In spite of its three large towns in 1953, the same number as Slovenia, Kosmet was less urbanised than any region except Montenegro; urbanisation, however, proceeded fairly rapidly and by 1961, when Kosovska Mitrovica had also gained urban status, the proportion of the population living in large towns had increased by one-half to a level higher than Montenegro and Bosnia-Hercegovina, but well short of Macedonia and the more developed regions. (Table 5-3). The populations in Priština and Kosovska Mitrovica had expanded particularly rapidly, at 6.0 and 5.6 percent respectively, less rapidly than the new towns of Titograd and Nikšić in Montenegro, but more rapidly than urban centres in Bosnia-Hercegovina and Macedonia. (Table 5-12).

Most of this movement into the towns was a response not primarily
Table 5-12  Growth of Population in Towns in Kosmet, 1953-61

<table>
<thead>
<tr>
<th>Town</th>
<th>Population 1953</th>
<th>Population 1961</th>
<th>Annual Increase Nos.</th>
<th>Annual Increase %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priština</td>
<td>24 081</td>
<td>33 593</td>
<td>1 814</td>
<td>6.0</td>
</tr>
<tr>
<td>Peć</td>
<td>21 058</td>
<td>28 351</td>
<td>912</td>
<td>3.8</td>
</tr>
<tr>
<td>Prizren</td>
<td>22 997</td>
<td>28 062</td>
<td>633</td>
<td>2.5</td>
</tr>
<tr>
<td>Kos. Mitrovica</td>
<td>17 195</td>
<td>26 721</td>
<td>1 191</td>
<td>5.6</td>
</tr>
<tr>
<td>All Towns</td>
<td>85 331</td>
<td>121 727</td>
<td>4 550</td>
<td>4.6</td>
</tr>
<tr>
<td>Kosmet</td>
<td>815 908</td>
<td>963 565</td>
<td>18 457</td>
<td>2.1</td>
</tr>
</tbody>
</table>
to new employment opportunities but to the pressure of the worsening over-
population in agriculture; every commune and village in Kosmet gained
population between 1953 and 1961, and 'employment' in agriculture in the
region as a whole increased at 2.4 per cent per year, in contrast to its
decline in every other region of Yugoslavia. As in Macedonia, the movement
of population into the towns ahead of the availability of urban employment
was accelerating in the early 1960's, making unemployment a social and
economic problem of major proportions; in 1964 registered unemployed,
chiefly unskilled male workers, represented 21.8 per cent of the total
labour force outside the private sector of agriculture, even that figure
being considerably depressed by the low participation of women, for social
reasons, in the labour force. 1.

Migration

To Kosmet, burdened with the most rapid natural increase of the
population and the most acute problem of overpopulation among the regions,
external migration offered no easy solution. Unlike the Macedonians, the
Shiptars (Albanians) faced very real difficulties of social acceptance in
other parts of Yugoslavia, 2. in addition to the differences of language
and culture and their deficiencies in standards of health, education and
industrial training. Between 1953 and 1961 a net total of only 39,000
people, less than 5,000 per year, left Kosmet, out of a natural increase
of over 20,000 annually. This was equivalent to 20.9 per cent of the
recorded increase in the resident population over these years, the lowest
level among the underdeveloped regions and just over one-third of the
level in Macedonia.

2. To which was added political discrimination until the dismissal of
Ranković in 1966.
External migration was, however, believed to be increasing in the later years, and was estimated by the regional authorities at between 7,000 and 10,000 annually in the mid 1960's. Several factors probably contributed to this acceleration: the growing pressure of agricultural overpopulation and urban unemployment within the regions, the efforts of the authorities to improve industrial training by the establishment of short-stay centres catering for both local and potential migrant workers, and the gradual reduction of social barriers with the trend towards greater mobility throughout Yugoslavia. But even at this higher level migration was making only a small contribution to the reduction of overpopulation in Kosmet.
6. THE RECKONING

(i) The Achievements

The period 1953-64 under the system of decentralised planning in Yugoslavia thus spanned twelve years of a sustained 'drive to development' for the country as a whole, specifically including, for the most part, its underdeveloped regions. Since the objective of development was formulated principally in terms of the rate of expansion of production and investment regarded as the primary means of realising it, the growth of output attained must be applied as the first criterion for appraising the achievements of the twelve years, and investment as the measure of their cost.

The inescapable verdict on the twelve years of regional policy is that the Yugoslav authorities failed in their global objective of promoting a convergent trend in the level of development between the group of regions in the northern crescent of the country and those in the south. In spite of the efforts of an active regional policy, and with the single exception of Montenegro, the smallest of all the regions, total output and, more markedly, output per head of the population grew less rapidly in the underdeveloped regions, thus widening the disparities in the level of development.

This disappointing conclusion is, however, somewhat modified by the division of the period into its two appropriate sub-periods, 1953 until 1957 or 1958, the years of a limited regional policy, dominated by annual planning and the build-up of the basic industries, and the period 1958-64 of more intensive efforts for the underdeveloped regions and a much wider sectoral strategy. The rate of growth of total output improved in the latter half of the period in each of the underdeveloped regions, with the
probable exception of Macedonia where a trend rate of growth for these years is difficult to determine as a result of the impact of the Skopje earthquake of July 1963; these improved growth rates exceeded that of the more developed group of regions, although only in Montenegro by a sufficient margin to offset the unfavourable population growth of the underdeveloped regions. While in over-all terms, therefore, the movement towards convergence was not achieved, the results in the latter half of the period were markedly better, only the high rates of population increase in Bosnia-Hercegovina and Kosmet preventing the beginning of a movement towards the objective in at least three of the underdeveloped regions.

But development is a complex process and the growth of total output is only a summary measure of assessment which conceals a number of important successes. Growth rates which averaged 8.1 per cent annually over a period of twelve years were in themselves a very real achievement, even although below those of the more developed regions. Not only were the growth rates high in absolute terms, but for regions which had a negligible prior record of economic progress, and even in 1953 were starting from a very low level of attained development (with the exception, to some extent, of Bosnia-Hercegovina), it can be claimed as a greater achievement for them to have recorded a rate of growth of social product of 8.1 per cent than for the more developed regions to have achieved 8.4 per cent.

The relative failure of the underdeveloped regions in the growth of total output, moreover, did not apply across the entire range of economic activity. They achieved a major success with a rate of industrial expansion which consistently exceeded that of the more developed regions. While insufficient to give the underdeveloped regions a faster growth of
social product as a whole, this was a highly significant achievement, since industry had the highest level of output per worker, and the highest growth rates for output and employment, among the major sectors. In the second half of the period the underdeveloped regions also achieved a higher growth rate than the more developed regions in each of the major sectors except agriculture, in contrast with the earlier years when their growth rates lagged.

In spite of their relative failure in the growth of social product, therefore, the underdeveloped regions did achieve a number of high growth rates for individual sectors, particularly in the latter half of the period.

'Structural' and 'Growth' Effects

The growth achievement of the underdeveloped regions emerges more explicitly when the growth of social product, as the weighted average of the growth rates of the individual sectors, is separated into its two contributing aspects, the 'growth effect' of the relative growth rates of the individual sectors, and the 'structural effect' of the weighting given to each growth rate by the importance of that sector in the structure of output. Table 6-1 presents three growth rates for social product, the trend rate (as already used), and two hypothetical growth rates, 'structure-adjusted' and 'growth-adjusted'.

The structure-adjusted rates show the growth of social product which would have occurred in each of the underdeveloped regions had it had the output structure, at the level of the six major sectors, prevailing in the group of more developed regions, while maintaining its own sectoral growth rates; the structure-adjusted rate for the j-th underdeveloped region thus derives from
Table 6-1  Hypothetical Growth Rates for Social Product, 1953-64

<table>
<thead>
<tr>
<th></th>
<th>Trend Rate</th>
<th>Structure Adjusted</th>
<th>Growth Adjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developed Regions</td>
<td>8.4</td>
<td>8.4</td>
<td>8.4</td>
</tr>
<tr>
<td>Bosnia-Hercegovina</td>
<td>8.0</td>
<td>8.7</td>
<td>8.7</td>
</tr>
<tr>
<td>Macedonia</td>
<td>8.1</td>
<td>9.1</td>
<td>7.9</td>
</tr>
<tr>
<td>Montenegro</td>
<td>10.4</td>
<td>14.4</td>
<td>8.2</td>
</tr>
<tr>
<td>Kosmet</td>
<td>6.8</td>
<td>7.3</td>
<td>8.1</td>
</tr>
</tbody>
</table>
\[ \sum_{i} a^{*}(i) e^{r(i) t} \]

where \( r(i) \) represents the growth rate of the \( i \)-th sector \((i=1,...,6)\), \( t \) the number of years in the period covered, \( a(i) \) the share of the \( i \)-th sector in social product in 1953-54 \( (\sum_{i} a(i) = 1.0) \) and superscripted \( * \) an attribute of the more developed group of regions. In each of the underdeveloped regions, without exception, the structure-adjusted rate is higher than the trend rate revealing that the output structure of the more developed regions constituted a more favourable weighting system for the growth of social product than did the structure of any of the underdeveloped regions.

The growth-adjusted rates apply the trend growth rates of the individual sectors achieved in the group of more developed regions to the output structure which actually prevailed in each of the underdeveloped regions; in terms of the notation used above, the growth-adjusted rate for the \( j \)-th underdeveloped region is derived from

\[ \sum_{i} a^{*}(ij) e^{r^{*}(i) t} \]

To a noticeable extent in Montenegro, and also marginally in Macedonia, the growth-adjusted rate is below the trend rate, showing that the sectoral growth rates achieved there were more favourable to the growth of social product than were those of the more developed regions. In Bosnia-Hercegovina and, particularly, Kosmet, on the other hand, the growth-adjusted rates exceed the trend rates, revealing a deficiency in the sectoral growth rates achieved by these regions.

These hypothetical rates thus serve to indicate the differing importance of the two components of the growth of total output among the individual underdeveloped regions. The 'growth' success of Montenegro in particular, but also of Macedonia, against an unfavourable structure of
output, was considerable, their structure-adjusted rates being above, and their growth-adjusted rates below, the trend rates achieved. In Bosnia-Hercegovina and Kosmet, on the other hand, both hypothetical rates are above the trend rate, indicating both a growth deficiency and a structural handicap; in Bosnia-Hercegovina these effects were approximately equal, while in Kosmet the 'growth' deficiency was particularly marked, and of greater consequence than the structural handicap.

Hypothetical growth rates for the two sub-periods confirm these tendencies. In the earlier half of the period the structural handicap of all the underdeveloped regions is again evident, and the 'growth' deficiency of Kosmet during these lean years in its development, emerges particularly strongly. A major change in the latter half, however, is the elimination of this growth deficiency in Kosmet as a result of the acceleration of the region's sectoral growth rates, and in addition, while the structural effect continued to be adverse in each of the underdeveloped regions, the extent of the disadvantage was narrowed somewhat as the expansion of industry between 1953-54 and 1957-58 increases the weighting latterly given to that, the fastest growing sector.

Hypothetical growth rates for industry, based on the twenty industrial sectors reveal even more pronounced 'growth' success for the underdeveloped regions, again in face of a structural handicap. (Table 6-2). The growth-adjusted rates for the individual underdeveloped regions all fall within a relatively narrow range, and each, except that for Kosmet, is below the trend rate, indicating a favourable 'growth' effect in three of the underdeveloped regions, and a 'growth' deficiency only in Kosmet. The structure-adjusted rate, on the other hand, is considerably higher for each underdeveloped region than the trend rate,
<table>
<thead>
<tr>
<th></th>
<th>Trend Rate</th>
<th>Structure Adjusted</th>
<th>Growth Adjusted</th>
</tr>
</thead>
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<td>11.1</td>
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<td>19.1</td>
<td>9.0</td>
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<tr>
<td>Montenegro</td>
<td>20.5</td>
<td>52.5</td>
<td>9.9</td>
</tr>
<tr>
<td>Kosmet</td>
<td>8.7</td>
<td>43.4</td>
<td>9.9</td>
</tr>
</tbody>
</table>
and than the rate of industrial expansion in the more developed group, revealing that each underdeveloped region faced a further structural handicap within industry; the dominance of the slow-growing tobacco industry in Macedonia and the deficiency of the underdeveloped regions as a group in the major national growth sectors of petroleum, chemicals and electrical equipment can be cited as leading instances of this handicap.

The precise figures for the hypothetical growth rates have validity only if it can be assumed that the 'growth' and 'structural' effects are independent, that is, that the individual growth rates are not affected by the relative importance of the sector in the structure of output. This assumption is of questionable applicability in the underdeveloped regions, particularly in the derivation of the structure-adjusted rates for industry. The very high growth rates recorded in the underdeveloped regions most often referred to the initial years of a new industry and were much less feasible for a sector already well established in the industrial structure; part of the tendency for the underdeveloped regions to record extremely high growth rates has been avoided by the use of trend rates based on only the second and subsequent years of recorded output, but the tendency to exaggeration in the structure-adjusted rates for industry in Montenegro and Kosmet remains evident.

The growth achievement of the underdeveloped regions was not only to record the growth rates of social product and industrial output which they did in the face of their structural disadvantage, but, by reducing these disadvantages, to create more favourable conditions for future growth. The more rapid growth of industry relative to the other major sectors, and particularly to agriculture, and the build-up of metallurgy, engineering and food-products in place of the older staples of mining,
timber and tobacco, was recorded to only a limited extent in the growth rates for the period, but, by giving greater weighting to these higher-growth sectors, was promoting a structural modification favourable to more rapid growth in subsequent years.

The importance of the structure of output for the over-all growth rate revealed by the separation of the 'growth' and 'structural' effects serves further to emphasise that where, as in Yugoslavia, the sectoral level is extensively used in development planning, the target growth rates for the individual sectors must be set such that, when aggregated with the weighting effect deriving from the structure of output, they will yield the target rate for total output. This apparently simple matter of arithmetic consistency has profound implications for a development strategy based primarily on industrialisation; the smaller the proportion of total output represented by industry, the higher the rate of growth required for industry to make a contribution to total growth comparable to that in more developed regions. Yugoslav experience demonstrates that in more backward regions industrialisation without intensive supplementary efforts in other sectors may be insufficient to achieve the global growth objective.

Price Movements

The inter-regional comparison of rates of growth of output, based on constant prices, eliminates the effect of price changes on the valuation of output and thus on the level of output per head. In Yugoslavia between 1953 and 1964 not only was the general level of prices rising but, partly as a result of market forces and partly of government policy, the rates of change varied markedly between sectors, with, as a result of differences in the composition of output, a strong regional impact.
The comparison of the index of social product per head among the regions at current and constant prices reveals that the over-all effect of the price changes was adverse to the underdeveloped regions. (Table 6-3). At current prices, social product per head in the more developed regions improved from 110 in 1953 (Yugoslavia = 100) to 119 in 1964, an index of improvement of 108 (1953 = 100), while the improvement on a valuation at 1960 prices was only from 113 to 119, an index of 104. In the underdeveloped regions, on the other hand, at current prices the index of change in their relative position was 39 (a decline from 71 to 63) which 1960 prices present as an index of 93 (71 to 66). In their actual positions, therefore, at current prices, the relative improvement of the more developed regions and the deterioration of the underdeveloped regions was greater than is shown by the constant price valuation of output and, consequently, by the comparison of growth rates based on it.

The effect of the price changes, however, varied widely from region to region. The greatest beneficiary was Vojvodina, with an index of actual improvement of 118 while the constant price valuation indicated a relative deterioration. As the region most strongly specialised in agricultural production, Vojvodina derived the greatest gain from the very strong upward movement in agricultural prices, which increased by some two and a half times over the twelve years, double the increase in industrial prices.

Only Bosnia-Mersegovina among the underdeveloped regions was not adversely affected by the price changes. Several of its major industrial sectors, the timber trades, coal and steel, were among those where prices were increasing most rapidly, but, as a consequence of the small share of agriculture in total output, it was one of the regions to gain least from
Table 6-3  Social Product per Head, at Current, 1960 and 1965 Prices

<table>
<thead>
<tr>
<th>Region</th>
<th>SP per Head at Current Prices</th>
<th>SP per Head at 1960 Prices</th>
<th>SP per Head at 1965 Prices</th>
<th>Index</th>
</tr>
</thead>
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<td>100</td>
<td>100</td>
<td>100</td>
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<td>119</td>
<td>113</td>
<td>118</td>
</tr>
<tr>
<td>Underdeveloped</td>
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<td>63</td>
<td>71</td>
<td>66</td>
</tr>
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<td>Regions</td>
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<td></td>
<td></td>
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<td>96</td>
<td>113</td>
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<td>105</td>
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<td>69</td>
<td>69^a</td>
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<td>69^a</td>
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<td>68</td>
<td>61</td>
<td>75</td>
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<tr>
<td>Kosmet</td>
<td>53</td>
<td>35</td>
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</tbody>
</table>

^a The level of output per head in Macedonia in 1964 is raised above its trend level by the activity connected with the rebuilding of Skopje.
the increase in agricultural prices. These effects proved to be exactly offsetting, giving an index of change identical in current and constant prices.

Montenegro, with an output structure similar to that of Bosnia-Hercegovina, was affected by the price changes in much the same way, but the stronger adverse component in the changes between 1960 and 1964 resulted in the index of improvement at current prices (117) being lower than that at 1960 prices (123). Thus part of Montenegro's gain from its rapid growth of social product between 1953 and 1964 was offset by price changes which were, on balance, unfavourable to the region's relative position. 1

Macedonia and Kosmet lost even more heavily than Montenegro as a consequence of the relative rates of price change among different sectors, and in both cases the adverse effect occurred from the movements between 1953 and 1960. In Macedonia the deterioration was attributable predominantly to the lower valuation of tobacco at 1960 prices, 2 although

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1. The 1960 structure of relative prices was in fact more favourable to the positions of both Bosnia-Hercegovina and Montenegro than the current prices of either 1953 or 1964. In the revaluation of their 1953 output at 1960 prices they gain particularly from the higher valuation of forestry and timber products, while the further sharp increase in agricultural prices between 1960 and 1964 benefitted most of the other regions to a greater extent than Bosnia-Hercegovina or Montenegro.

2. This emerges clearly from the difference in its share in industrial output, 57.1 per cent in 1953-54 at current prices, but only 37.5 per cent at 1960 prices, but is contrary to the change indicated by the indices of producer prices, 80 for tobacco in 1963 (1960 = 100) against 91 for industrial products in general. The Federal Statistical Office warn that, because of the different weights used, these price indices may not be suitable for the deflation of the current price valuation of output by sector, and moreover price indices compiled with national weights are liable to be only approximately accurate for smaller regions. Both of these considerations, however, appear to be of limited applicability and importance in the case of tobacco in Macedonia.
the fall in textile prices, one of the few price reductions to occur during the 1950's, also served to offset the favourable effect of rising agricultural and food prices.

Many distortions were present in the price structure during these years as a result of government intervention in price formation, but it is not possible systematically to assess the regional incidence of the various elements. However, the new prices established as part of the reforms of mid-1965 were designed to eliminate the majority of the distortions which had built up over the preceding years, and although some of the intended adjustments have not yet been fully implemented, increased prices such as those for agricultural and food products, coal, steel and other metals, timber and construction materials have, at least in part, corrected previous artificial prices. But the revaluation of regional output at the post-reform prices of November 1965 suggests that, particularly by 1964, the price distortions did not introduce a systematic regional bias of more than minor importance. (Table 6-3). When output per head in 1964 is valued at the new prices, Vojvodina and Kosmet, the two regions where agriculture contributed the largest proportion of total output, improved their relative positions, while the positions of Slovenia and Croatia deteriorated slightly. But the general impact of the revaluation for 1964 is small. The revaluation 1953 must be regarded with caution, as price indices can be of only limited accuracy over thirteen years in a rapidly changing economy, but a noticeable improvement in the positions of Vojvodina and each of the underdeveloped regions at the expense principally of Slovenia, is evident. The major factor giving rise to these altered regional positions is the much higher valuation of agricultural output at 1965 than 1953 prices. The regional incidence of the
price distortions, however, may well have been greater than emerges on this analysis, since, for lack of more detailed information, national sectoral price indices have been applied to each region, although the interventions in price between 1953 and 1964 were commonly made on a 'product' rather than a 'sector' basis, their incidence thus varying with the product composition of output in each region. Only a much more detailed revaluation would reveal whether or not, at that level, the price system had introduced a more marked regional bias.

The revaluation of output per head in 1953 at the post-reform prices reveals that the bias in the pricing system, particularly pronounced in the earlier years of the period 1953-64, towards the undervaluation of agricultural relative to industrial output (which incidentally gives a small upward bias to all Yugoslav growth rates through its greater weighting of industry, the fastest-growing sector) also tended to exaggerate the domestic problem of regional disparities during the 1950's.
(ii) The Costs

The scarcity of, and competing demands for, investment resources in Yugoslavia during these years impose on regional policy, from the economic point of view, the criterion of efficient use of investment resources. While direct evidence is not available on the inter-regional flow of investment funds, the high investment ratios in the underdeveloped regions (Table A-4) and the large proportion of investment in the three underdeveloped Republics financed from federal sources (Table 2-3, p.127) indicate that a substantial volume of investment funds available to the economy as a whole were channelled to the underdeveloped regions.  

The return on the investment in a project is measured by the relationship between its present value and investment cost, where the present value (PV) is the lump sum represented by the flow of net earnings over the life of the project, discounted to the date of the investment:

\[
PV = \sum_{t=1}^{T} \frac{A(t)}{(1+i)^t}
\]

where A(t) is the difference between total revenue and total costs in year t of the project's life of T years, and i the rate of discount or interest applicable. In a developing country it is particularly important that present value should be calculated to include the project's external as well as direct effects, although many of these will, in practice, be difficult to measure. A necessary condition for investment in a project located in an underdeveloped region to represent an

---

1. Part of the investment undertaken in each region was financed from local resources (enterprise revenue, and Republic and commune SIF's) and arguably was not available for allocation nationally. But with the low rate of internal financing and the high level of federal financing in the underdeveloped Republics, and certainly also in Kosmet, although figures are not available, this element of rigidity can be ignored.
efficient allocation of resources from the national point of view is that its present value should exceed its investment cost, and by more than in the case of an alternative project in a more developed region.

In the Yugoslav economic system the planners were extremely well placed to undertake the *ex ante* appraisal of investment projects along these lines, with the centralisation of much investment decision-making and the extensive information which had to be submitted with each loan application. Their task was, however, in practice complicated not only by the familiar technical difficulties of anticipating revenue and operating expenses, investment cost and project life, but by difficulties of evaluation in face of the administrative elements in the pricing system and the various forms of subsidy or concession for individual types of project or specified items of capital equipment. But in spite of the complex problems of valuation, the cost of development in the underdeveloped regions, in terms of output foregone as a consequence of the locational decisions, could, at least in principle, be known to the planners.

But direct appraisal through the estimation of present value is not practicable where the data on investment and output are compiled on a sector and not on a project basis (although a small number of sectors in the underdeveloped regions consisted of a single project only); the life of each investment cannot be known, nor the various output-streams allocated to the relevant portion of investment.

An indirect method of appraisal has therefore to be adopted, relating the rate of growth of output achieved in each region to its level of investment. 1. The method of incremental capital-output ratios (ICOR's)

1. The obvious method of simple regression of the growth rates on the level of investment, as used for example by Hill (1964), proved entirely impracticable because of the small number of regional observations and their high degree of variability.
uses ratio form to relate the increase in capital stock to the growth of output. The ICOR's shown in Table 6-4 relate the average investment ratio over the eleven years 1953-63 to the trend growth of output 1953-64, in total and by sector and region. The ICOR's are uniformly higher for the underdeveloped than for the more developed regions in both social product as a whole and in industry, the same general conclusion also holding for the other major sectors and the majority of industrial branches. The regularity of the pattern strongly suggests that the growth of output in the underdeveloped regions was achieved at considerably higher investment cost than among the more developed regions.

As a measure of the efficiency of investment, however, the ICOR's must be interpreted with caution. The level of investment has been measured gross when the truer measure, relative to the increase in output would be 'new' investment, that is, total investment after the deduction of the replacements for scrapped assets. However, as a result of continuing technical progress, replacements are rarely technologically identical with the assets being scrapped, making the 'new' component impossible to isolate in practice. Gross investment has been preferred to net as a proxy for new investment. In a rapidly-developing economy such as Yugoslavia, a large part of gross investment will be 'new', either in the form of new additions to the capital stock or with incorporated technical progress reducing the replacement component to a small part of the total. Moreover, with the rapid expansion of the capital stock, provision for depreciation will exceed requirements for replacement investment, depreciation being estimated on all installed capital, while replacement requirements arise from the earlier, and smaller, stock of assets. In Yugoslavia, the arbitrary nature of depreciation
## Table 6-4 Incremental Capital-Output Ratios

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<thead>
<tr>
<th>Region</th>
<th>Social Product</th>
<th>Industry</th>
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</thead>
<tbody>
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<td>Kosmet</td>
<td>4.57</td>
<td>5.13</td>
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Table 6-4  Incremental Capital-Output Ratios, (continued)

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<th>Underdeveloped Regions</th>
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<td>1.7</td>
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<td>0.8</td>
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<tr>
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* Negative or negligible growth of output.
Table 6-4 Incremental Capital-Output Ratios (continued)

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<th>Croatia</th>
<th>Vojvodina</th>
<th>Serbia Proper</th>
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<th>Montenegro</th>
<th>Kosovo</th>
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* Negative or negligible growth of output.
provision, on the basis of historical cost and centrally fixed schedules of asset-life, is a further disadvantage to the use of net investment. In Yugoslav circumstances, therefore, the arguments are both in favour of gross and against net investment as a proxy for new investment. 1.

While the calculation of present value is based on the life of the asset, the ICOR's quoted relate the level of investment and the growth of output realised over the specified time-period only, thus introducing a certain arbitrariness into the relationship. At the end of the period, certain investments had been undertaken, and their cost included in the investment ratio, but, by being incompletely activated had not yet yielded their full contribution to increased output; part of this effect has been avoided by excluding the investment ratio for 1964 from the average for the period, but, as certain projects take much longer than one year to complete and bring into full production, this cannot eliminate more than part of the effect. Similarly, at the beginning of the period, part of the growth of output recorded would derive from investment undertaken under the Plan for 1947-52 and thus not included in the investment ratio. 2. These effects due to the arbitrary

1. A similar conclusion, based on the first part of this argument only, was reached by Neuberger (1957), (1959) in his study of Yugoslav investment. Domar (1953) first pointed out the relationship between gross, net and new investment in a growing economy, while Salter (1960, chap. iv) and Kaldor (1960) are among those who give a central role to replacement investment as a vehicle for technical change.

The most directly relevant consideration is not so much whether the use of the gross investment ratio distorts the over-all evaluation of the ICOR, but whether it introduces a systematic bias between the regional groups. It is, however, impossible to establish unambiguously a priori whether the gross ICOR is more or less favourable to the underdeveloped regions than a 'new' or net investment measure would be, were the estimation of replacements feasible for the former and the Yugoslav valuation of depreciation accepted for the latter.

2. Part of this effect would have been avoided by including the investment ratio for 1952 in the average for the period, but output figures for that year are not systematically available.
definitions of the beginning and end of the period tend, in general, to be offsetting, the 'growth' bonus in the early years being set against the additional investment costs of the later years; however where, as in the underdeveloped regions, early development efforts were quite limited and the rate of investment increased markedly in later years, the growth bonus is small relative to the additional investment costs. Only in Bosnia-Hercegovina among the underdeveloped regions would the activation of capacity constructed between 1947 and 1952 make a significant contribution to the growth of output from 1953. On the other hand, the inauguration of individual projects towards the end of the period has inflated sectoral ICOR's in the underdeveloped regions in a number of instances, notably chemicals in Macedonia, coal and electricity in Kosmet, the food-processing industries and the socialised sector of agriculture, also in Kosmet. Their late start in development and the acceleration of the efforts towards the end of the period thus give an upward bias to the ICOR's of the underdeveloped regions.

But apart from these technical considerations, the higher ICOR's in the underdeveloped regions do not necessarily indicate a mis-allocation of investment resources, even on strictly economic grounds. Disparities such as exist in Yugoslavia can be eliminated only after a complex process of development; in a period as short as twelve years, additional items appear among investment costs, while the full growth results of the development efforts are not realised. Part of the investment in the underdeveloped regions was for 'catching-up' in the provision of capital facilities already available in the more developed regions; Diodor Jelić (1965) is particularly forceful in emphasising the inflation of the investment cost of many projects in the underdeveloped regions as a result
of the need to provide ancillary infrastructure, such as minor roads, local transformers and generating stations and service facilities; these items, already available as social overhead capital in the more developed regions, often became a direct investment cost with no equivalent, separate contribution to the growth of output in the underdeveloped regions.

More difficult to identify and quantify, but of considerable importance nonetheless, are the external economies of development. These are analogous, in a different context, to 'learning by doing'; as the consequence of a learning process with the passage of time, gains will be achieved in 'technical progress' or the level of output per unit of factor input, and, more specifically, output will increase over time independently of investment. The advantages to be gained from the external economies of development can be expected to be greater in the case of the underdeveloped regions, as experience is acquired in industrial management and a new industrial labour force trained, but to quantify their contribution can scarcely be a matter of more than guesswork. The size of any estimate, moreover, is liable to vary closely with the extent to which its compiler is politically committed to the development of the backward regions, and in the extreme case an appeal to the power of the external economies of development can be used to defend any shortfall in the profitability of investment there. The Macedonian economist Miljovski (1963b, p.675), for example, is entirely unconcerned about any possibility of throwing good money after bad when he asserts that, if investment in the underdeveloped regions is unprofitable, the solution is to promote their further development in order that investments there will become effective.

Even after allowance for the upwards bias in the ICOR's of the
underdeveloped regions due to these various effects, a marked adverse margin must remain between the investment cost of the growth of output achieved in the underdeveloped regions and in the more developed group. How far this could have been avoided can be a matter of impressionistic judgement only, but by 1963-64, when the entire system of economic management was coming under review during the discussions preceding the reforms, criticisms were being made of mistakes and inefficiencies in the implementation of regional policy. Srebrić (1964) gives one of the harshest and most comprehensive appraisals, criticising the 'one-sidedness' of development, for its excessive concentration on industrialisation to the neglect particularly of infrastructure, the lack of careful choice of the lines of development in manufacturing industry, and the dispersion of industrial projects into very small centres and unsuitable localities. Stojanović (1963a, p.634) calls for new policies for the underdeveloped regions, containing, as she puts it, less politics and more economics.

While directed specifically at the implementation of regional policy, these lines of criticism had their origins in the characteristics and problems of investment decision-making in the Yugoslav system as a whole. The concentration on industrialisation and the neglect of infrastructure criticised by Srebrić was one of the major consequences of the emphasis on securing the immediate expansion of output, of which the more general manifestation was in the tendency for planning to be heavily orientated towards considerations of supply, with relatively limited regard to demand factors. This dominance of increased production as a short-term objective also received comment from the O.E.C.D. technical assistance missions to Kosmet in their reports (Organisation for Economic Cooperation and Development (1968, p.46), which noted that 'the preoccupation with
questions of production has also had the effect of diverting attention from questions of distribution and marketing; to this might well be added the tendency to give insufficient regard to the investment costs involved and the longer-term organisation of economic activity.

In the selection of priority sectors for development, the reallocation of investment funds by sector as part of the planning process itself impeded the application of cost criteria, while the national strategy of 'development on a broader front' encouraged the sectoral dispersion of development efforts. Not only were cost criteria regarded as of limited applicability between sectors, but even their application, as intended, between projects was hampered by the structure of decision-making; the pressure of applications from enterprises, communes and the regions themselves against the inadequate machinery, particularly at the level of the Republic or region, for filtering out projects which were badly conceived not infrequently resulted in the poor enforcement of investment criteria, even where these had been elaborated.

The spatial organisation of development was similarly affected, as a facile interpretation of economic equality and the prominence given to the role of the commune as the initiator of new projects combined with the weakness of the Republic and the pressure of decisions on the central organs to encourage the excessive dispersion of development, although in later years the reformulation of locational policy was begun.

In these various respects the underdeveloped regions, with their much greater dependence on federal financing, were more exposed to the deficiencies of the national system of investment decision-making than were the more developed regions.

But a purely economic critique of the costs and results of development
policy for the backward regions does not treat the problem on the Yugoslavs' own terms, in that, while development was to be implemented in accordance with the criteria of economic efficiency, the objective was adopted partly on political and social grounds. An element of 'social' or 'relief' rather than 'development' investment was often included in assistance to the underdeveloped regions, as is most clearly seen in the case of the separate allocation of investment funds as, for example, in the guaranteed investments, independent of the projects being proposed for development there and of the comparative rate of return being offered in other parts of the country. The higher investment cost of growth in the backward regions was thus in part an economic price being paid for greater political and social integration of the country as a whole.
(iii) The Future

For the elimination of disparities in the level of development which have built up over generations, twelve years, less than half a generation, is an inadequately short period. The long-term nature of the task faced in the backward regions is explicitly emphasised by Colanović (1962, p.158):

'The entire process of regional development involves the movement towards an adequate structure. The problems of industrialisation in backward areas are very deep and complex, while, at the same time, national resources for special intervention in the underdeveloped regions are limited. Results can therefore be expected only over the much longer run. Five years is a suitable period for concrete programming, but prior to the five-year plan it is necessary to have a long-term plan for regional development in general and the development of the backward areas. Five years comprise, on average, only one complete activation period for investment in industry and mining, scarcely one for a complex agricultural project, scarcely one, on average, for the building of infrastructure, one average time-period for the training of highly-qualified personnel etc. As a result of this, the impact of the efforts of a five-year period cannot have an emancipatory quality, and, to the extent that this is so, long-term planning is necessary'.

Mladenović (1962, p.178) talks of fifteen-twenty years as the minimum horizon for regional development.

Growth Prospects

Over the years 1953-64 development policy in the backward regions yielded an over-all failure to move towards convergence, in spite of a number of individual growth successes. The prospects for the next decade or so - subject to all the uncertainties of economic prediction - appear, however, to be rather brighter, although a number of important doubts remain.

For the immediate future, each of the underdeveloped regions has at least one large project 'in the pipeline' which will, at latest by the early 1970's, make a significant contribution to increased output. In
Kosmet in particular the lignite and thermal electricity projects of the Priština kombinat and the non-ferrous metallurgy and chemicals projects at Kosovska Mitrovica were introducing a transformation into the region's industrial position in the later 1960's. The aluminium plant planned for Titograd, to process 700,000 tons of bauxite annually, much of it from near Nišić, will become the largest industrial project in Montenegro. The Skopje steel-mill, with its initial capacity of 300,000 tons brought into production in the autumn of 1967 and the remainder scheduled for 1968 and 1970, along with the greatly expanded chemical industry, will bring an acceleration of industrial production in the later 1960's. Bosnia-Hercegovina, with its lower level of investment in the later years of the period, has least to anticipate from projects begun, although the expansion of the steel industry at Zenica and large hydro-electric project at Bajina Bašta, on the Drina, scheduled to supply electricity to the Titograd aluminium plant, will make a contribution.

Various major transport schemes will reduce bottlenecks and bring the more effective integration of the underdeveloped regions into the national market; the reconstruction (including conversion to standard-gauge) and electrification of the Sarajevo-Ploče railway was completed late in 1966, while road improvements being undertaken particularly in Serbia, will give better access to Montenegro; the Belgrade-Bar railway and the harbour at Bar, at present, however, delayed by financial rather than engineering difficulties, will eventually open up an entirely new orientation for Macedonia and Kosmet as well as Montenegro.

While individual projects can make notable contributions, the structure of total output is of central importance for the over-all growth rate. The years 1953-64 showed the limitations of even a successful policy of
industrial expansion, when industry, designed as the spearhead of development policy, represented a small proportion of total output, and the growth rates of other sectors were allowed to lag. In this respect the underdeveloped regions have been much better placed since the mid-1960's than in 1953, after the twelve years of successful industrial growth have effected a structural modification more favourable to the rapid growth of total output.

Some decline in the rates of expansion of industrial sectors is to be expected, once the very high growth rates associated with the establishment of new industries are past. The growth of industrial production in total, however, may well continue at a high level. As an approximate indication, it can be said that the underdeveloped regions had, by the middle 1960's, attained a level of development comparable with that of the more developed regions in the early 1950's, from which the latter maintained a rate of industrial expansion of 11.1 per cent annually over the twelve years.

But even if the rate of industrial expansion slackens, it is highly likely to remain much more rapid than any feasible rate of growth of agricultural production. While agriculture was very much a slow-growth sector from the Yugoslav point of view, the Food and Agricultural Organisation (1965), in their review of agriculture in the second post-war decade, credit Yugoslavia with the third highest rate of expansion in the world (after Greece and Israel) in agricultural output per head of the population over the years 1955-55. Much opportunity for agricultural improvement still remains in Yugoslavia, for which higher prices are already providing the incentive, and greater acceptance of cooperative farming the means; but an average growth rate of 4 per cent annually over
the next decade would be a major achievement, while an industrial growth rate of 10 per cent would surprise no-one in Yugoslavia.

Over the past twenty years, the structural problem has been seen essentially as one of altering the relative balance between agriculture and industry, by shifting employment out of agriculture with its low productivity and slow growth. But a shift towards industry cannot of itself achieve a long-run solution of the structural problem. The problem is one which is continually self-renewing, as technical progress, changes in demand and the discovery of new resources impinge on the growth opportunities of individual industries. A further aspect of the structural question is whether the patterns of industrial development adopted in the individual underdeveloped regions introduce a favourable structure, or whether, in the course of the next decade, the regions may again find themselves handicapped by a dependence on slow-growth sectors.

'Picking the winners', as all planners would like to do, is an extremely difficult task, and 'spotting the losers' only slightly less so, again involving the anticipation of the growth of demand (national and international, intermediate and final) and of the lines of technical change, even aside from the aggregation problem that all products within a sector will not share equally in these. From the experience of other countries, and incipient trends within Yugoslavia, however, the prospects for certain major regional specialisations appear dubiously encouraging.

Bosnia-Hercegovina in particular appears threatened by an obsolete industrial structure. In 1964 13.8 per cent of its industrial employment was in the coal industry, an industry which, in many countries, has suffered in the post-war years from the shift to other industrial and domestic fuels. Ominous signs of a similar movement were emerging in
Yugoslavia in the mid-1960's, with the introduction of diesel in place of steam locomotives by Yugoslav Railways and the beginnings of the electrification of certain sections of railway. By 1967 the coal industry held large unsold stocks and laying-off of workers - 1,000 at the Kakanj mines alone, in the summer of 1967 - had begun.

The vulnerability of Macedonia, with its heavy dependence on the slow growth sectors of agriculture, tobacco and the traditional consumer industries, was recognised as early as the end of the 1950's and a major reorientation of industrial development was launched. Only the 1970's will show whether the region will be successful in the switch to advanced industrial technology which it sought in its decisions of the earlier 1960's.

Technological obsolescence of their capital equipment, even during the process of development, is a continual threat to the underdeveloped regions. The most modern equipment may initially be installed in a project, but, only if improvements are consistently incorporated, particularly through replacement investment, can an up-to-date technology be maintained. This is a continuing problem of managerial initiative, in which the underdeveloped regions are handicapped by their more limited industrial experience and technical expertise. Moreover, the tendency, observable in many countries, for technologically 'new' sectors to become established in the more developed areas and further widen the technological gap between the regions, was also becoming evident in Yugoslavia, with the growth of the electronics industry in Slovenia and Vojvodina and of the automobile industry in Serbia and Slovenia.

Looking even further ahead, the growth of manufacturing industry and services will reduce the importance of the traditional natural resources,
such as mineral ores and other raw materials, relative to the factors of location and access. None of the underdeveloped regions faces essentially poor prospects in this connection, although Montenegro will always suffer to some extent from its remoteness from the rest of Yugoslavia, and both Montenegro and Bosnia-Hercegovina face natural barriers impeding internal transportation. But as a longer-term prospect, development in the underdeveloped regions will have to take a stronger orientation towards the national transport arteries, particularly in their central valley areas. As subsistence agriculture and the population dispersion associated with it are increasingly superseded by agricultural concentration and industrial and urban development, an acceleration of the decline of the population in the more remote areas, deficient in access and other natural resources, is to be expected and welcomed. While only the full results of the next population census can confirm this, both intra- and inter-regional migration appeared to be increasing in the 1960's as development began to break down traditional social patterns.

The level and growth of social product per head are only approximate indicators of the level and rate of development. Improvements in the education and health standards of the population make a very real contribution to welfare, and in this much remains to be done in the underdeveloped regions, in spite of the progress of the post-war years. The contribution to higher production, the only way in which these improvements are counted into 'development', can come only slowly, as the school population of today are not the labour-force until tomorrow.

The contribution of increased output to the welfare of a region's population may, on the other hand, be overstated, if development exists in an 'enclave', as in the case of the Tremča lead-mines in pre-war and
early post-war Kosmet, or, to a lesser extent, in post-war Bosnia-
Hercegovina. Particularly in Montenegro, where total output and
population are both small, one large project, such as the aluminium
kombinat could 'solve' the region's underdevelopment in statistical terms,
while leaving much of the population following a primitive way of life.
Similarly, the impact of the Skopje steel-works and the Priština lignite
project on their regions' development will depend the size and extent of
their indirect effects and linkages.

After the Reforms

Regional development policy in the years 1953-64 was pursued within
a very favourable institutional framework, the central accumulation and
allocation of a large part of investment funds securing the channelling
of investment resources to the underdeveloped regions, while tax
concessions and subsidies shielded enterprises from the consequences of
unprofitable operation. But the sequence of economic reforms of 1964-66
introduced major changes, directed towards improving the efficiency of
the economic system through the reduction of state intervention and the
increased role of economic incentives and penalties. The taxation on
enterprises was substantially reduced to effect a major shift towards
self-financing; the proportion of investment financed from enterprise
revenue was to be raised to around 70 per cent in place of the 30-40
per cent (subject, further, to manipulation through the participation
requirement) between 1953 and 1964. The SIP's were retained to finance
major projects, but their resources and role in allocating them were
sharply curtailed. The abolition of much state intervention in price
fixing accompanied by the liberalisation of imports was designed to
increase competition in the home market, both among Yugoslav enterprisest,
and between domestically produced and imported goods.

Both sets of changes presented a major threat to the underdeveloped regions. The lesser threat was probably on the side of investment, where the allocation of 1.85 per cent of social product annually to the Special Fund for the Development of the Underdeveloped Regions was established as one of the basic proportions of development, \(^1\) in order to ensure that development assistance to the backward regions kept pace with economic progress nationally. More seriously, greater competition along with the removal of price and subsidy protection threatens to expose the poor profitability of a number of enterprises in the underdeveloped regions (as in other parts of Yugoslavia). The effects of this are already emerging, with the financial difficulties of certain Bosnian coal-mines and of the large textile factory at Titograd in 1967 among those attracting national attention.

Various difficulties have delayed the full implementation of the reforms, and even in 1968 the economic situation in Yugoslavia remains unclear; but the development of the underdeveloped regions, fostered under the system of decentralised planning between 1953 and 1964, has now had much of its institutional protection removed, and has been launched on a new and uncertain era.

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\(1\) This allocation was a not ungenerous one; the regions themselves had sought 2 per cent.
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<td>Agr. private</td>
<td>28.7</td>
<td>36.6</td>
<td>7.5</td>
<td>27.8</td>
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</table>
### Table A-6 Percentage Rates of Growth of Social Product and Employment

<table>
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<tr>
<td>Agriculture</td>
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<td>2.5 1.7 1.9 1.1 3.7</td>
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<td>Industry</td>
<td>12.2 14.8 16.3 18.5 3.6</td>
<td>10.3 10.8 10.3 24.6 13.9</td>
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<tr>
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<td>8.2 8.1 7.6 16.9 11.9</td>
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<tr>
<td>Commerce</td>
<td>9.7 8.8 2.4 9.0 6.6</td>
<td>9.8 9.2 12.5 9.5 12.8</td>
</tr>
<tr>
<td>Construction</td>
<td>0.9 -13.8 -9.1 -9.0 4.3</td>
<td>13.3 7.7 25.4 10.3 11.3</td>
</tr>
<tr>
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<td>3.0 7.5 5.8 7.3 2.9</td>
</tr>
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<td>11.7 9.5 15.4 34.5 16.2</td>
</tr>
<tr>
<td>Coal</td>
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<td>3.3 6.7 -2.7 10.3 36.1</td>
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<tr>
<td>Petroleum</td>
<td>13.4 15.6 - - -</td>
<td>15.5 12.5 - - -</td>
</tr>
<tr>
<td>Steel</td>
<td>10.6 24.0 (-) (-) (-)</td>
<td>2.7 9.5 32.8 33.1 -</td>
</tr>
<tr>
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<td>8.3 24.9 3.0 13.8 5.0</td>
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<tr>
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</tr>
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<td>Metal manuf.</td>
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<td>9.2 13.6 17.4 19.3(55.4)</td>
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<tr>
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</tr>
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<td>15.9 7.2 25.6 22.6 (-)</td>
</tr>
<tr>
<td>Building mat.</td>
<td>7.8 3.8 3.9 13.7 14.2</td>
<td>6.5 10.8 13.1 7.5 4.2</td>
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<td>Timber</td>
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<td>12.7 14.9 16.6 (-)(91.7)</td>
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<td>8.0 19.1 8.9 50.8 33.4</td>
</tr>
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<td>9.3 19.8 17.8 40.1(40.4)</td>
</tr>
<tr>
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<td>13.6 - - -</td>
<td>15.3 (-) - (123.2) (-)</td>
</tr>
<tr>
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<td>10.7 14.8 10.3 13.6 29.7</td>
</tr>
<tr>
<td>Printing</td>
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<td>11.0 14.6 13.3 7.7 16.5</td>
</tr>
<tr>
<td>Tobacco</td>
<td>7.3 12.3 13.5 12.3 2.6</td>
<td>4.5 0.6 1.1 -5.6 13.7</td>
</tr>
<tr>
<td>Miscell.</td>
<td>17.7 6.1 -2.6 14.9 12.2</td>
<td>15.5 13.9 3.4 12.9 33.3</td>
</tr>
</tbody>
</table>

**Agr. social** | 7.4 -1.6 10.0 -8.4 15.0 | 11.2 17.5 10.0 18.8 23.0 |
**Agr. private** | 3.5 1.7 7.9 6.8 2.5 | 1.2 1.0 1.0 0.8 2.7 |

Figures in brackets refer to growth rates over less than the entire period.
<table>
<thead>
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<th>Growth of Employment 1953-64</th>
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<td>6.5 5.5 8.9 17.6 6.2</td>
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<td>Commerce</td>
</tr>
<tr>
<td>10.1 9.3 7.7 8.3 10.2</td>
<td>6.6 4.8 3.8 6.5 5.9</td>
<td>Construction</td>
</tr>
<tr>
<td>9.3 2.3 10.0 0.1 10.6</td>
<td>3.4 -0.6 3.7 0.7 12.9</td>
<td>Crafts</td>
</tr>
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<td>7.3 9.1 11.6 15.6 9.1</td>
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<td>Coal</td>
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<td>14.5 12.8 - - -</td>
<td>5.3 1.8 - - (-)</td>
<td>Petroleum</td>
</tr>
<tr>
<td>6.9 15.2 (32.8)(38.1) -</td>
<td>2.6 3.5 (30.8) (7.3) -</td>
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</tr>
<tr>
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<tr>
<td>12.6 6.3 23.8 10.3 -13.1</td>
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<tr>
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<td>Chemicals</td>
</tr>
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<td>3.3 7.4 4.8 7.0 4.3</td>
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<td>4.4 3.6 7.5 8.3 4.3</td>
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<tr>
<td>8.5 17.2 17.9 40.0 22.7</td>
<td>7.2 13.0 11.3 22.3 24.1</td>
<td>Textiles</td>
</tr>
<tr>
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<td>Rubber</td>
</tr>
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<td>3.3 10.0 15.3 3.8 17.7</td>
<td>Food inds.</td>
</tr>
<tr>
<td>14.4 13.9 12.9 26.8 25.8</td>
<td>12.3 10.3 5.0 18.9 20.0</td>
<td>Printing</td>
</tr>
<tr>
<td>4.8 4.1 3.8 2.3 4.2</td>
<td>2.7 3.1 3.2 2.0 7.3</td>
<td>Tobacco</td>
</tr>
<tr>
<td>16.7 13.5 4.6 14.6 24.9</td>
<td>9.1 8.3 7.1 8.0 11.3</td>
<td>Miscell.</td>
</tr>
<tr>
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</tr>
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<td>-2.0 -1.0 -2.1 -2.1 2.1</td>
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</tbody>
</table>
Appendix 1: National Income Accounting in Yugoslavia

The national income accounts of Yugoslavia differ conceptually and in method of compilation from those of the United Nations (the System of National Accounts), O.E.C.D. and most Western countries. The principal differences lie in the definitions of social product and national income, the very limited use of an accounting framework and the absence of a 'factor cost' concept.

Sources

The national income accounts and related statistics are chiefly published by the Federal Statistical Office (Savezni Zavod za Statistiku), which uses, as the principal source for their compilation, data collected by the social accounting services through a system of enterprise reports. Until 1958 enterprises in the social sector were required to make all their transactions through their accounts with the National Bank (Narodna Banka) and, in addition, to return periodic reports, thus giving the accounting service (at that time a branch of the Bank) a full record of each item in their costs and revenue. This system was consolidated in 1958 with the introduction of the complex annual report (kompeksni godišnji izveštaj (KGI)), a compulsory report completed by the enterprise giving information on gross revenue, costs, sales, fixed assets, stocks, labour force, personal incomes, enterprise funds and other categories. ¹ The introduction of the KGI was followed by the establishment of the Social Accounting Service (Služba Drustvenog Knjigovodstva (SDK)) as an independent agency. The coverage of enterprises in the social sector in the national income accounts is thus virtually complete.

¹ Details of the categories and method of completion of the KGI are given in Savezni Zavod za Statistiku (1959).
Information for the private sector is not available on this systematic basis, but is compiled from taxation returns, supplemented by census information and sample surveys. A certain amount of imputation, particularly for on-farm consumption of agricultural output, has to be used.

Social Product

The Yugoslav concept of social product, like that of the other East European countries, is claimed to derive from the Marxist concept of 'material production', although Horvat (1961b) accepts that the Yugoslav definition is based on a misinterpretation of what Marx meant by production. Social product differs from the Western gross domestic product by excluding certain 'unproductive' services, regarded as necessary inputs for the process of production rather than as final outputs in themselves: public administration and defence, education and health services, insurance, banking and finance, the ownership of dwellings, and miscellaneous personal services, such as legal and domestic services, hairdressing and laundries.

This difference of definition reduces Yugoslav social product by comparison with the U.N. coverage of GNP. Jackson (1955) quotes the finding of an American mission in 1952, agreed with by the Yugoslav government statisticians, that 'about 10 per cent' would have to be added to the Yugoslav concept to adjust it to the O.E.E.C. Standardised System definition of GNP. More recently, estimates of GNP for Yugoslavia on O.E.C.D. definitions have been presented in the Yugoslav submissions to

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1. The application of this concept in Eastern European accounting systems and its relationship to Marx's original concept are discussed in Kaser (1961).

2. The official methodological notes on the compilation of social product do not make clear whether social product is a domestic or national product concept. Vinski (1961), however, affirms that it is domestic product; Horvat (1964b, p.9) dismisses the quantitative importance of the distinction in Yugoslav circumstances.
Comparison of these with the equivalent Yugoslav figures for social product shows that, in the years 1956-64, social product has been increased by the following percentages to correspond to the O.E.C.D. definition: 11, 9, 12, 11, 12, 14, 16, 16 and 14. While the period is a relatively short one, these figures suggest that the unproductive services were expanding more rapidly than the economy as a whole, and that by 1961-64 the gap in coverage had widened to about 15 per cent, in place of the 10 per cent of the early 1950's.

The Accounting Framework

The Yugoslav accounts at the national level are presented on the familiar balance-sheet compilation, from the three aspects of production, incomes and expenditure. At the regional level, however, the presentation by industrial origin is the most extensively available, with the income side usually in summary form only, and the expenditure side not compiled. Regional accounts are therefore presented entirely from the side of production, in terms of output and incomes produced within the region, and not in terms of incomes received or categories of expenditure.

(i) Output by Industrial Origin

Social product and national income are 'value-added' concepts. The starting-point in their estimation is the gross revenue of the producing unit, from which are deducted 'material costs', comprising the cost of materials and intermediate products used up in the process of production, services purchased and interest payments on borrowed funds. 1 2.

1. Interest payments, which would constitute part of value-added in Western accounts, are treated as a cost, financial services being 'unproductive'.
2. The aggregate 'global production' representing gross turnover, a familiar category in Eastern European accounting systems, is /continued
Output is thus valued at market prices, inclusive of turnover tax and subsidies. Turnover tax, although so called, was revised (until the reforms of 1965) on gross revenue after the deduction of material costs, thus corresponding more closely to a tax on value added than on turnover. It was levied at rates varying from 5 to 60 per cent, frequently at the lower end of this range. Subsidies, as a form of 'negative' indirect tax were relatively rare, household coal in the 1920's being one of the few instances. The lesser role for turnover taxes and subsidies as a fiscal weapon results in the market price valuation being much less far removed from the factor cost valuation in Yugoslavia than in the rest of Eastern Europe.

Depreciation provision is closely regulated for the economy as a whole and the enterprise has no discretion in its determination. The central authorities draw up detailed schedules of the period over which many individual types of capital asset are to be amortized. The enterprise then calculates its depreciation by the straight line method, on the basis of the scheduled amortisation period for the relevant class of asset and its original cost. The 'official' life must be used as the basis for depreciation, irrespective of the enterprise's estimate of the asset's actual life. To take account of increasing replacement costs in a time of rising prices, assets are subject to periodic revaluation, as in 1962, again determined by the authorities.

Capital inflow figures are sometimes presented along with the national income accounts. They may be presented at 'original'

only occasionally presented, although normally easily calculable as the sum of social product and material costs. Apart from specific uses, as in input-output analysis, it has now been virtually abandoned as a measure of output.
(undepreciated) or 'present' (depreciated) value. The undepreciated value is the total of the purchase prices of all assets held by the enterprise (or the revised price, if a revaluation of assets has taken place since the date of purchase); it is thus a total of items valued in the current prices of different years. The 'present' value is similarly derived, but from the purchase price of the asset net of the scheduled provision for depreciation.

The sector classification of output by industry of origin is operated at two levels. The initial division is into seven major sectors (deblnosti), industry, agriculture, forestry, construction, transport, commerce and crafts, with communal activities (urban water supply etc.) sometimes listed as an eighth and sometimes included along with crafts. 1.

Most of these sectors are further divided into branches (rane). Industry, which covers mining, manufacturing and part of public utility, is divided into 22 branches (21 until the revision of 1961), mainly on the basis of their type of product, independent of its state of production. The industrial sectors are: electricity (generation and distribution), coal (including coke and gas), petroleum (extraction and refining), iron and steel (ore mining, smelting, rolling etc.), non-ferrous metals (ore-mining, smelting and processing), non-metallic minerals (the quarrying and processing of clay, glass etc.), metal manufactures, ship-building, electrical industries (the production of all types of electrical equipment), chemicals, building materials (quarrying and preparation), timber industries, paper (including cellulose), textiles (spinning, weaving and clothing), footwear (including all leather goods), rubber, food processing, printing (including publishing), tobacco, films, geological

1. There appears to be no rationale for this, except that both are quantitatively unimportant and placed at the end of the list of sectors
surveying and miscellaneous. 1.

Further subdivisions often, but by no means consistently, made include agriculture and crafts into their social and private sectors, agriculture into agriculture, fishing and rural water supply, construction into project design, building, interior fitting and surveying, commerce into wholesale, retail and foreign trade, commercial services, catering and tourism, and transport into rail, river, road, sea, air and urban. The small private sectors which exist in construction, commerce (catering), and transport are rarely separated out, and only occasionally included as 'other private sector'.

'Organisational' and 'pure activity' principles: until 1960 the production account was compiled on an 'enterprise' basis, where the enterprise was taken as the unit of account and classified into its appropriate sector and region. A small number of exceptions were made for large multi-plant enterprises, where the individual plant was taken as the unit of account and could be classified into a different sector and region from the parent enterprise. In 1961 this somewhat ad hoc procedure was standardised into two separate principles of classification, the 'organisational' and 'pure activity' principles, each extending an aspect of the earlier procedure. On the 'organisational principle' each enterprise is treated as a whole, including all its activities and any branch plants, and is classified by sector according to the activity yielding the largest part of its output, and by region according to its place of organisation. On the 'pure activity' principle, the various activities of the enterprise, business units, sales outlets, construction sites, workers' restaurants, are each classified individually.

1. Full details of the coverage of the sectoral classification are given in Savezni Zavod za Statistiku (1962).
The 'pure activity' classification yields a lower output in many industrial branches by separating out subsidiary activities, and correspondingly increasing output in sectors such as commerce, building materials and metal manufactures, and also food-processing, a major subsidiary activity of many farms in the social sector of agriculture. The 'pure activity' principle, also designated, in its regional aspect, the 'territorial' principle, reduces the regional output of Slovenia and Serbia Proper (which includes Belgrade) to the advantage of the other regions, as activities are classified by their actual location rather than the place of organisation of the enterprise.

Under the 'pure activity' classification, the level of output by sector and region is less liable to be affected by changes involving only the form of organisation of the enterprise. An extreme example of this is the railway industry in Kosmet where, on the pure activity principle, output presents a continuous series over time, while on the organisational principle it abruptly becomes nil in 1963 and 1964, all transferred to Serbia Proper under a reorganisation of the region's railways into an enterprise based on Belgrade. But the reorganisation of an enterprise across regional boundaries was relatively rare, although perhaps slightly more common within the three regions of Serbia, as a consequence of the additional level of federation there. Similarly, the expansion of a secondary activity to become the major part of enterprise output could, on the organisational principle, bring an abrupt reclassification of the whole enterprise, while the pure activity principle would record only the progressive growth of the separate lines of output.
(ii) Shares in national income

National income at market prices (social product net of depreciation) is classified into the two principal categories of 'net personal incomes' and 'accumulation and funds'. Personal incomes, from both the social and private sectors, are net of all taxes and social security contributions. 'Accumulation and funds' is the composite share of the enterprise and the state, comprising turnover tax, taxes on personal incomes, taxes on the enterprise and on private producers, and allocations to enterprise funds. These obviously can be grouped into the shares of the enterprise and the state, although this form of presentation is not used, and, at the regional level, only the broad division between personal incomes and accumulation and funds is normally given. This classification is thus according to the ultimate income-recipient, (exclusive of transfer payments by government) where the S.N.A. and other systems show the payments for factor services. Being derived from the production account, the income shares are allocated among the regions on the basis of the location of production, not the place of residence of the income-recipient.

(iii) Expenditure on social product

The categories of the expenditure account are similar to those of the S.N.A.: personal consumption, general consumption, gross investment and the surplus on the balance of payments. Personal consumption is the expenditure of households on goods and productive services; collective or general consumption comprises the 'material expenditures' of governmental and social organs, including subsidies to enterprises. This category is substantially less than total government expenditure since it excludes unproductive expenditure, such as the costs of administration. Gross investment, however, includes non-productive investment. The expenditure
account is not available at the regional level.
The following abbreviations are used throughout:

SZS: Savezni Zavod za Statistiku (Federal Statistical Office)

SYJ: Statisticki Godišnjak Jugoslavije (Statistical Yearbook of Yugoslavia)

SB: Statistički Bilten (Statistical Bulletin)

In compiling the series for output, employment and investment by region Yugoslav definitions have, for the most part, been followed: the distinction between productive and non-productive activities, the classification by sector and the method of valuation. To make a full adjustment to the coverage of GDP, the U.N. industrial classification and a factor cost valuation would require estimates at many stages, detracting severely from the usefulness of the results.

In spite of the extensive collection and publication of economic statistics, many sources have had to be used and adjustments made to secure complete and, as far as possible, comparable series for the individual regions.

The Sector Classification

The various official data series use varying degrees of sectoral breakdown. A 27 sector classification has been adopted here, as the most detailed which could be systematically compiled.

Of the seven major sectors of the Yugoslav classification, construction, commerce and transport are retained without dis-aggregation; agriculture and crafts are divided into the social and private sectors to take account of the important differences between these; industry is divided into twenty industrial branches, in place of the twenty-one of the industrial classification in use until 1960 and of the twenty-two used from 1961, by the
inclusion of the small sectors, films, geological surveying and communal activities in miscellaneous; forestry is included in the timber industry.

In 1961 a number of changes were made in the classification, and this revised classification is applied throughout. Where standardised series are not available from official sources, the adjustments made are described below.

Wherever figures for Serbia Proper are not given in the Yugoslav sources, they are derived by the deduction of the figures for Vojvodina and Kosmet from Serbia (total).

Social Product and National Income at Current Prices

Sources

Social product and national income by region and sector are commonly given in the annual issues of SZS : SYY, 1954-66. More complete coverage for the earlier years, when the figures in the issues of the SYY are highly aggregated, is given in SZS : SB 228. A major omission from these is the coverage of the three regions of Serbia, 1953-57, which was supplied from the records of the Statistical Office of the Republic of Serbia in Belgrade.

Other omissions filled in from various sources were:
a) social product in the industrial branches, by region, 1961 and 1962, from SZS : Indeks (1962 no. 11, supplementary tables) and SZS : SB 283, Table 3. Both sources give provisional figures only, but the small number of subsequent revisions can be easily inferred; each figure for output is part of two totals, 'industry' in its own region and the 'branch' total for Yugoslavia; comparison of the original totals with the available revised totals and the pairing off of regional and branch discrepancies indicates the items revised and the revised figure. Revisions were made,
on this basis, in 1961 to chemicals in Slovenia, food industries in Croatia, metal manufactures in Serbia Proper and metal manufactures and printing in Bosnia-Hercegovina, and in 1962 to food industries in Serbia Proper and tobacco in Macedonia.

b) social product in the social and private sectors of agriculture and crafts, by region, 1961 and 1962, from SZS : Indeks (1962, no.11 supplementary tables) and SZS : SYY 1964, Table 205-2 (in the section on agriculture). 1. For 1962 the breakdown for crafts is not available but could be accurately estimated from the national income figures for 1962 and the average of the amortisation figures for 1961 and 1963, and then cross-checked for consistency with the regional and sectoral totals.

Organisational Principle

Of the two compilations of output available from 1961, that by organisational principle has been preferred to the pure activity compilation. Neither is identical with the modified 'enterprise' principle applied until 1960 but the organisational principle is much closer, the only differences being in the case of the small number of plants of multi-plant enterprises classified separately until 1960. This is also the principle applied in the compilation of the investment series and, for the most part, of the employment series.

Revision of the Industrial Classification

While the non-comparability of the series for social product and national income before and after 1961, arising from the introduction of the revised classification, is normally indicated in the methodological

1. The corresponding table in SZS : SYY 1963 (Table 205-2) gives the breakdown for 1961 but on the 'pure activity' principle. This is one of the few cases where unspecified output figures are not by organisational principle. The point is not noted in the Yearbook, but the tables are thus inconsistent between the two years.
notes, no revised figures for the earlier years have been made available from official sources. ¹. The following adjustments have therefore been made to improve the comparability of the series:

a) All sectors in 1960: in the case of 1960, the problem could be avoided. 1960 is the base year for the series for social product and national income at constant prices, compiled by the Federal Statistical Office and standardised on the revised classification. The figures for 1960 from the constant price series should, therefore, be equivalent to the current price valuation, adjusted to the new classification. The constant price series are given, for the seven major sectors in all regions in SZS: SYY 1966, Table 203-1, and for the industrial branches in the six Republics in Savezni Zavod za Statistiku (1963). The validity of adopting the figures from the constant price valuation is confirmed by the negligible differences between the two sets of figures, except where classification changes are known to be involved.

b) forestry and timber: in every year forestry and timber have been aggregated into a single industrial sector. The inconsistencies between regions, and from year to year in the same region, in the classification of sawmills and logging activities made an appropriate adjustment impossible. From several footnotes (SZS: SYY 1962, Table 304-2, and SZS: SB 228, introductory note 4) it appears that in 1953-56 sawmills were classified into forestry, except in Bosnia-Hercegovina and Montenegro, where they were included in the timber industry, while between 1957 and 1960 they were classified 'partly' into forestry and 'partly' into timber in Serbia, Croatia and Bosnia-Hercegovina, totally in timber in Montenegro and totally in forestry in Slovenia and Macedonia.

¹. Even details of the changes made are rarely provided. One of the most detailed lists is given in the introduction to SZS: SB 310.
c) cement: the transfer of the output of the cement industry in 1953-59 from non-metallic minerals to building materials was usually effected in two stages, the estimation of the value of the output of cement for the country as a whole, and then its allocation by region.

For Yugoslavia: for 1959 the valuation is given in SZS : SB 205, Table 1-7, but for earlier years it had to be estimated. For each year the volume index of production and the producer price index for cement are available from SZS : SB 236, Table 1-4, SZS : SY Y 1962, Table 219-2, and SZS : SY Y 1961, Table 219-2. The two sets of indices, expressed on the base 1960 = 100 were applied to the value of output of cement in 1960, thus adjusting it for changes in both volume and price to give estimates for the earlier years.

Allocation by region: this valuation of the output of cement for Yugoslavia as a whole was allocated among the regions on the basis of their shares in the physical volume of output (in tons, SZS : SB 81, 103, 136, 169, 205, 236). A cross-check with 1960 revealed a close similarity between each region's share in the volume of output and in its value, except in the case of Slovenia where the region's share in the value was approximately twice as great. The output in Slovenia, in tons, was therefore doubled when shares in the value were allocated. Volume figures for the three regions of Serbia were not available for the years 1953-55, and the shares of the regions in the total for Serbia were therefore estimated by extrapolation from the later years.

d) plastics: the transfer of the value of output of plastics from

---

1. The Federal Statistical Office warn against assuming the comparability of the price and volume indices for individual sectors, on the grounds that different weights may be used in their compilation. Cement is however a sufficiently homogeneous product for the weighting problem to be unimportant.
miscellaneous to chemicals was effected in 1958 and 1959 only, no category 'miscellaneous' existing in the earlier years. For 1959 the output figures for the six Republics are given in SZS : SB 205; the figure for Serbia was allocated among its three regions in the same proportions as in 1960 (from SZS : SB 236, Table 1-7). For 1958 the only information available is for the output of the product 'plastics', by enterprise in any sector and excluding the value of ancillary outputs of enterprises classified, on a sector basis, as producers of plastics. (SZS : SB 183, Table 1, chemicals); since the figures for 1960 on this definition correspond closely to those from the social product series, the 'product' figures were accepted without adjustment. The allocation within Serbia was again made in the same proportions as in 1960.

e) cardboard boxes and paper packing: again the transfer of the output of these from miscellaneous to the paper industry was made only for 1958 and 1959, no output being presented under miscellaneous for the earlier years. Output by Republic in 1959 is given in SZS : SB 205. The 1960 figures indicate that the entire adjustment in that year originated with Serbia Proper, and this has been assumed to apply also in 1959. No information in value or volume terms is available for 1958, but, since the unadjusted figures indicated a discontinuity in 1958, an estimate was made by extrapolation from 1960 and 1959, which appeared to eliminate this.

f) geological surveying: the value of output in the years 1953-59 has been deducted from construction and included in miscellaneous. For the six Republics the category is given in SZS : SB 228, Table 2-41 to 2-47. (This also includes the small item surveying for mapping purposes, but the discrepancy has been ignored). For the three regions of Serbia the national income figures for 1958 and 1959 (SZS : SYY 1960, Table 3-44, and
SZS: SYY 1961, Table 304-2) show all the output from geological surveying originating in Serbia Proper and this allocation has been applied to social product in these and the earlier years.

g) communal activities: in the years before 1961 the output of this sector appears to have been included predominantly in construction, and there in the sub-sector 'building' (SZS: SB 228, introductory note 5). The only information on their extent relates to 1961-64 (from the national income tables of the current issues of the Yearbook); the proportions shown in these years, by region, have been extrapolated for the earlier years.

h) other classification changes: no adjustment has been made for other minor changes, for which no information is available on the amounts involved: railway workshops (transferred from metal manufactures to transport), optical instruments (from miscellaneous to metal manufactures), sports equipment (from textiles to miscellaneous), vehicle repairs (from transport to metal manufactures and crafts) and part of railway track maintenance (in certain years only, from transport to construction).

The Elimination of Investment Maintenance

Until the middle of 1957 amortisation was defined to include expenditure for major repairs to plant and equipment (investment maintenance) while latterly this expenditure was classified as a material cost and deducted from gross revenue in calculating the value of output. Social product in the years 1953-57 in the Yugoslav accounts is therefore overstated by the amount of this investment maintenance; national income is unaffected, being calculated net of this amount, whether it is deducted as a material cost or as part of amortisation.

While the discontinuity is often indicated in footnotes, no revised
Figures have been provided from official sources, and estimates have therefore been made here.

Figures for expenditure on investment maintenance were found in Narodna Banka: Hsečni Statistički Bilten (the Monthly Statistical Bulletin of the National Bank (1959, no.2, p.35, footnote) as follows: 1954 53.2 billion dinars, 1955 49.3 billion, 1956 52.3 billion, 1957 50.6 billion. Only this rounded figure for the economy as a whole is given, with no breakdown by region or sector. On the assumption that investment maintenance represented the same proportion of amortisation in each region and sector, these totals were allocated and deducted from social product. Investment maintenance in 1953 was estimated at the same proportion of amortisation as in 1954 (43.5 billion). Half of the figure for 1957 has been used, since the change of definition took effect from 1 July.

The deduction of investment maintenance was of the following importance:

<table>
<thead>
<tr>
<th></th>
<th>1953</th>
<th>1954</th>
<th>1955</th>
<th>1956</th>
<th>1957</th>
</tr>
</thead>
<tbody>
<tr>
<td>As a percentage of the original valuation of amortisation</td>
<td>38.9</td>
<td>38.9</td>
<td>32.1</td>
<td>31.1</td>
<td>15.7</td>
</tr>
<tr>
<td>As a percentage of the original valuation of social product</td>
<td>3.8</td>
<td>4.1</td>
<td>3.2</td>
<td>3.2</td>
<td>1.3</td>
</tr>
</tbody>
</table>

Unallocated

The Yugoslav totals for social product and national income each include 23 432 million dinars in 1953 and 32 000 million in 1954 of output unallocated by region and sector. (SZS : SYY 1964, Table 105-3 footnote 2).

Social Product and National Income at Constant Prices

Sources

Since 1964 the Statistical Yearbook has given series for social
product and national income at constant prices of 1960, by region, for
the seven major sectors, compiled back to 1952; SZS : SYY 1966, Table
203-1 gives these for the years 1953-64. Savezni Zavod za Statistiku
(1963) gives the series by industrial branch (excluding films and
geological surveying), for Yugoslavia and the six Republics for the years
1953-62. For 1963 and 1964 similar figures for the industrial branches,
for Yugoslavia alone, are given in SZS : SB 333, Table 4 and SZS : SB 442,
Table 4 (including revisions to metal manufactures and textiles from the
previous bulletin). Various items not covered in these series have been
estimated as described below.

Compilation

The constant price series prepared by the Federal Statistical Office
are not compiled by the more familiar method of deflating the current
price valuation by a suitable price index, but by the method of 'value
added per unit of output'. Some 800 products are selected, to cover much
of total output, and suitably grouped by sector; for each product,
information has been recorded on value added per unit of physical output
in the base year (1960), e.g. per ton of a specified grade of coal, or
per unit of service. This valuation is then applied to the data on the
physical volume of output in each year to give the valuation of its
output in terms of value added per unit in 1960. These are then
aggregated by sector and region. Full methodological details are given
in Branimir Marković (1960).

The series given in each of the sources mentioned have been compiled
by the Federal Statistical Office, and revised, on the basis of their
access to SDK records, to the 'organisational principle' and the new
industrial classification.
Additional Estimates

Omissions from the series mentioned have been filled in as follows:

a) Films and geological surveying, 1953-62: for these small categories, figures for Yugoslavia as a whole, rounded to billion in place of the more usual million dinars, are given in SZS: SYY 1964, Table 105-2. Each Republic has been allocated the same share in this total as in the sectoral total at current prices.

b) Industrial branches within Serbia, 1953-62: the figures available consisted of the constant price valuation of each branch output for Serbia (total), and the totals for the major sector 'industry' in each of the three regions (SZS: SYY 1966, Table 203-1 and SZS: SB 333, Table 4). With the current price valuation of output by region and sector as the starting point, the method of biproportional adjustment (Appendix 3) has been applied to secure two-way consistency with the regional and sectoral totals.

c) Industrial branches in all regions, 1963-64: the total for the major sector 'industry' in each region is given in SZS: SYY 1966, Table 203-1, and for the individual industrial branches, in Yugoslavia as a whole, in SZS: SB 333, Table 4, and SZS: SB 442, Table 4. Again with the current price valuation for social product by region and industrial branch as the starting estimate, the method of biproportional adjustment was applied.

d) Social and private sectors of agriculture and crafts in all regions, 1953-64: the constant price valuation for all regions for the major sectors agriculture and crafts is given in SZS: SYY 1966, Table 203-1; the constant price valuation of the social and private sectors separately, for Yugoslavia, is given in SZS: SYY 1964, Table 105-2 and SZS: SYY 1966, Table 105-2. The method of biproportional adjustment was applied to the
current price valuation of social product by sector and region to give consistency with these totals.

**Gross Investment at Current Prices**

**Sources**

While some figures are published, particularly for recent years, in both the Statistical Yearbook and the Monthly Statistical Bulletin of the National Bank, the series used have been obtained from the compilations of the Institut za Ekonomiku Investicija (the Institute for the Economics of Investment), an independent research institute in Belgrade. The publications used are Institut za Ekonomiku Investicija (1964, parts 1, 2 and 4) and Institut za Ekonomiku Investicija (1962). Both series are brought up to date annually, and the figures for 1963 and 1964 were supplied by the Institute.

All figures refer to gross investment in fixed assets. Net investment figures and investment in stocks are not presented in the series.

The Institute figures have been used in preference to those from the Federal Statistical Office and the National Bank because they present a revised and consistent series. In the case of investment in the social sector all three derive their figures from enterprise accounts filed with the SDK, and for recent years their figures are closely similar. But for the years before 1958 the Institute have, by going back to the enterprise records, extensively revised and improved the original compilations published by the other two sources. The adjustments made include the elimination of investment maintenance in the years 1953-57, the standardisation of the entire series on the basis of the revised industrial classification and the transfer of enterprise investment in housing from the sector of the enterprise to housing.
The figures given for gross investment in the private sector, in agriculture, crafts, housing and rural electrification, derive largely from the work of Vinski at the Ekonomski Institut in Zagreb. In place of the records of financial transactions, surveys were used to gauge the increase in the physical stock of assets in these sectors, to which a valuation was then applied.

**Additional Estimates**

The only omission from the coverage of the series is for private investment in the three regions of Serbia. Methods were therefore devised to allocate the figure for Serbia (total) among them:

a) investment in private agriculture in Serbia, 1953-64: the figures for investment given in the section on agriculture in later issues of the Yearbook (e.g. SZS : SYY 1966, Table 205-30) cover only monetary expenditure, while much private investment is in 'natural' form. Moreover, the proportional importance of monetary and natural expenditure can be expected to show systematic regional variation, where the level of agricultural development differs as widely as between Vojvodina and Kosmet.

More useful information is supplied by the periodic Surveys of Peasant Holdings (SZS : SB 48, 69, 113, 133, 170, 215, 295, 353 and 387) which give investment expenditure, monetary and natural, and income, again monetary and natural, for a sample of households. The ratio of household investment to income for each of the three regions was applied to its social product in the private sector of agriculture, to give an estimate of gross investment. This figure was then taken as the measure of the relative magnitude of investment in each region and thus its appropriate share in investment recorded in Serbia. For the years 1953-55 when only monetary receipts and expenditures are known, these have been combined
with the proportions shown in later years between the monetary and natural portions of income.

This method of estimation is obviously very indirect. Deriving from sample survey data, it is dependent for its accuracy on the quality of the sampling, particularly its stratification between the regions; and in addition, where large parts of income and investment are in 'natural' form, the necessity of imputation is liable to give rise to random variability. The estimates, however, yielded very plausible results; moreover since they have been used not directly as estimates of investment but as a basis of allocation for a given total, any error is confined to the three figures estimated.

b) investment in private crafts in Serbia, 1953-64: the only detailed information on the private sector of crafts in Serbia derives from the Censuses of Crafts of 1954, 1959 and 1964. These do not give information on investment or capital assets, but in 1954 and 1959 they include installed electricity capacity and in 1964 the consumption of electricity (SZS : SB 135 Table 3-2 to 3-5, SZS : SB 423, Table 2 and Savezni Zavod za Statistiku (1958, Tables 1-6)). Investment in each of the three regions has been estimated in proportion to its share in installed electrical capacity or the consumption of electricity. The intermediate years have been estimated by interpolation.

c) investment in private housing in Serbia, 1953-64: most private investment in housing takes place in agriculture. The Surveys of Peasant Holdings (SZS : SB 265, 285, 353 and 387) give figures for expenditure on investment in housing, monetary only in 1950-61, monetary and natural in 1962-64. These were expressed as a proportion of household income and then of social product in the private sector of agriculture in each
of the three regions to give an estimate of each region's relative level of private investment and thus its share in the total for Serbia. The resulting estimators, however, fluctuated considerably from year to year, making it preferable to adopt an average to apply to each year: Vojvodina 35 per cent, Serbia Proper 55 and Kosmet 10 per cent, of the figure for Serbia (total).

d) Petroleum within Serbia: for the years 1957-59 and 1961 the figure for investment in petroleum in Vojvodina is given as greater than that for Serbia (total) and in 1962 and 1964 as less, although the petroleum industry of Serbia was located exclusively in Vojvodina. The only substantial discrepancies are those for 1959 and 1961. Two possible sources of the discrepancies suggest themselves: in the series for employment a classification discrepancy is noted between petroleum and construction (SZS : SB 310, note to sector 113), while the series activity compilation of output for petroleum and chemicals in Vojvodina differs considerably from that by organisational principle. But in the absence of direct evidence on the source of the discrepancy, the figure for Serbia has been adopted for Vojvodina also, with a compensating adjustment to miscellaneous.

e) Investment in the social sector of agriculture, 1954-56: In the years 1954-56 some investment in the private sector of agriculture was financed from social funds and double-counted into both social and private investment. Here it has been retained in the private sector, as contributing to output there, and deducted from the series for social investment. The amounts were, however, available for Yugoslavia only, while for the Republics they were included with the amounts allocated to housing under a similar arrangement. The allocation of the Yugoslav
figure among the Republics was made on two alternative hypotheses, (i) that its distribution between agriculture and housing was the same in each Republic as in Yugoslavia and (ii) that it represented the same proportion of total investment in private agriculture in each Republic as in Yugoslavia. Fortuitously, the estimates on hypothesis (ii) as well as (i) totalled to the known figure for Yugoslavia, although varying among the individual Republics. The two sets of estimates were therefore averaged. For the three regions of Serbia, method (ii) alone could be used.

f) other private investment: it should be noted that no estimates are included for investment in the private sectors of construction, commerce and transport, although their output is included in the social product and national income series.

g) net investment: net investment has been derived by the deduction from gross investment of amortisation, obtained from the series for social product and national income.

Gross Investment at Constant Prices

Sources

The Institut za Ekonomiku Investicija compile and publish a series for investment at constant prices, parallel with their series at current prices. (Institut za Ekonomiku Investicija (1964, parts 3, 4) (1962)); these however could not be used directly, being at prices of 1962 while the constant price valuations of social product and national income are at prices of 1960. A new series has therefore been calculated from the current price valuations and a set of price indices compiled by the Institute.
Compilation

The figures for investment compiled by the Institute are broken down into three components, construction costs, expenditure on equipment and 'other', the last comprising mainly the cost of seeds in agriculture and of surveying and planning in other sectors. The Institute has prepared detailed sets of price indices for each of these, the details being described in Institut za Ekonomiku Investicija (1964, part 1). In the case of construction costs, an index is given for each Republic in the years 1953-62, for each Republic and the major sectors in 1953 and for all regions and major sectors in 1964. An index of equipment costs is presented for each major sector, with the exception of transport, where separate indices are given for the six branches. For 'other', separate indices are given for agriculture and other sectors.

For present purposes each of these indices has been converted from the base 1962 to base 1960, and then applied to the individual components of investment in the current price series. The conversion of each figure thus involved the application, to each of its three components, of a separate index, often differentiated by sector and region.

When regional indices have not been available for the three regions of Serbia, the index for Serbia (total) has been applied to each. For private investment in these three regions, calculated as described above without information on the technical structure, each region has been assumed to represent the same proportion of the figure for Serbia (total) at constant as at current prices.

Employment

Sources

Figures for employment in the social sector, by region and sector,
are given in SZS : SB 310, for 1953-62, and SZS : SB 394 for the revised figures for 1963 and figures for 1964. For employment in the private sector of agriculture, figures derived from the Population Censuses of 1953 and 1961 have been used (SZS : SYY 1961, Table 301-12, SZS : SYY 1964, Table 201-2) and for the private sector of crafts the Censuses of Crafts of 1954, 1958 and 1964 (SZS : SYY 1966, Table 203-1).

Compilation

The figures for employment in the social sector, 1953-55 are the averages from the twelve monthly figures, those for 1956-64 the average of the figures for 31 March and 30 September.

The series have been revised by the Federal Statistical Office, and standardised to the revised industrial classification. They do not, however, strictly follow either the organisational or the pure activity principle of classification. Until 1960 a 'territorial principle' was applied, with the district as the accounting unit: where an enterprise had branch-plants located in a different district, these would be classified individually, into a different sector and region from the parent enterprise, if appropriate. After 1961 the same principle was applied, with the commune as the accounting unit; but in view of the progressive consolidation of the communes, the Federal Statistical Office (SZS : SB 310, methodological introduction) comment that the change has no significant effect on the comparability of the figures. The point of difference, again probably of minor importance, is between the 'territorial' principle in the employment figures and the 'organisational' principle in the output figures.

Adjustments

The following adjustments have been made:
c) communal activities: to give greater comparability with the output
series, employment in non-productive parts of this sector (housing services)
has been excluded. For 1953-55, where figures are not given, they have
been estimated by extrapolation.
b) social sector of crafts: employment in 'craft services', which are
non-productive, has been excluded. Figures for 1953-55 have been
estimated by extrapolation.
c) private sector of agriculture: figures for 'employment' in the private
sector, by excluding the self-employed, give totally inadequate estimates
of the numbers involved, and the active population is counted only at the
periodic censuses. From the census figures for active population in
agriculture in 1953 and 1961 employment in the social sector has been
deducted and the remainder assumed to represent the active population in
the private sector. The figures for 1954-60 and 1962-64 have been
calculated by interpolation and extrapolation, and rounded to the nearest
hundred.
d) private sector of crafts: the Censuses of Crafts give figures for
employment in the private sector of crafts in 1954, 1959 and 1964, for
all regions. The other years have been calculated by interpolation.

Population

Sources

SZS : SYY 1964, Table 204-1, SZS : SYY 1966, Table 201-2.

Compilation

These estimates for the mid-year population are prepared by the
Federal Statistical Office on the basis of the results of the periodic
population censuses, and the registration of births, deaths and migration
abroad. The population is recorded by region in the censuses according
A small number of discrepancies have been noted among the series for output, investment and employment:

In Slovenia, ship-building records no gross investment in the years 1953-62 and 1964, while output is recorded in the current price series in each year except 1953 and 1956, and in the constant price series in each year except 1953; employment is recorded in every year.

In Vojvodina, petroleum records no output in the constant price series for the years 1953-55 (i.e. no output is recorded for Serbia) but output at current prices. The paper industry records no investment between 1955 and 1959, output but no employment in 1956, no output but employment in 1957-58, no output or employment in 1959, and employment with no output in 1960-62.

In Bosnia-Hercegovina electrical industries record output at constant but not current prices, and no employment, in 1956, while rubber output is recorded at current but not constant prices in 1960.

In Macedonia output in the electrical industries is recorded at constant but not current prices in 1953.

The following misprints also come to light:

Social product at current prices:

1958 Croatia textiles 39 267 corrected to 38 267 (SZS:SB 228, Table 2-43)
1959 Kosmet total 51 031 corrected to 51 031 (SZS:SYY 1963 Table 203-1 and later issues)
1963 Bosnia-Hercegovina non-ferrous metals 3 379 corrected to 3 339 (SZS:SYY 1965 Table 203-7)

National income at current prices:

1956 Macedonia non-ferrous metals 2 713 corrected to 2 773 (SZS:SB 228, Table 2-46)
1960 Serbia (total) total 1 055 267 corrected to 1 005 267 (SZS: SYY 1963, Table 203-1 and later issues)

1963 Vojvodina tobacco nil corrected to 713 (SZS: SYY 1965, Table 203-8) films 713 " " nil

Gross investment at current prices:

1956 Yugoslavia non-ferrous metals 1 077 corrected to 1 097 (Institut za Ekonomiku Investicije (1964, p.54)).

Employment:

1958 Vojvodina chemicals 1 990 corrected to 1 920 (SZS: SE 310, Table 2-18)
Appendix 3 : The Method of Bipropotional Adjustment

This method has been devised to estimate individual figures by region and sector in situations where the regional and sectoral totals are known, but only approximations for the individual elements which are to sum to these totals. It is an adaptation of the RAS method developed for the Cambridge Growth Project by Stone and Brown (1962) and Bates and Bacharach (1963), as an alternative to the assumption of fixed technical coefficients for the estimation of a given-year input-output coefficient matrix, from a base-year matrix and the given-year vector of gross outputs. Some of the formal properties of the RAS method are established by Bacharach (1965).

For any year, the two-way classification of data by region and sector constitutes an $mxn$ matrix $A(i,j)$, the elements $a(i,j)$ of which refer to the output (or other economic quantity) of the $i$-th sector in the $j$-th region, and

$$\sum_i a(i,j) = u(i); \quad \sum_j a(i,j) = v(j) \quad i = 1, \ldots, m \quad j = 1, \ldots, n$$

where $u(i)$, the marginal row-total, is the national output of the $i$-th sector and $v(j)$, the marginal column-total, is total output in the $j$-th region. The problem is, given $u^*(i)$ and $v^*(j)$ as the required sectoral and regional row and column totals, to estimate the matrix $A^*(i,j)$. It is assumed the $A^*(i,j)$ is 'biproportional' to $A(i,j)$:

$$a^*(i,j) = r(i) a(i,j) s(j) \quad \text{where } r(i) \text{ and } s(j) \text{ are factors multiplying the } i \text{-th row and } j \text{-th column of } A, \text{ and}$$

$$\sum_i a^*(i,j) = u^*(i) \quad \sum_j a^*(v,j) = v^*(j)$$

The derivation of $r(i) a(i,j) s(j)$ involves a sequence of $T$ iterations, where, in any iteration $t$
\[ r(i,t) = \frac{u^*(i)}{\sum_j a(i,j,t)} \quad \text{and} \quad s(j,t) = \frac{v^*(j)}{\sum_i a(i,j,t)} \]

The convergence of the iterative process and the uniqueness of the solution are proved by Bacharach (1965).

This method has been applied, in modified form, to the Yugoslav data. The marginal regional and sectoral totals, being derived from different compilations, were not normally fully consistent, thus making it impossible to achieve convergence. The iterative process was, therefore, watched at each stage and the process terminated when approximate consistency was achieved. At most three iterations were required to yield discrepancies of less than 2 per cent, often very much less than this, in all but a very few individual totals.

The adjustment process bears an economic interpretation. Its most extensive use was for the conversion of the current price valuation of output to constant prices, with given totals for regional output and the national output of the individual sectors. The biproportional method treats the adjustment as comprising two components, a sectoral price effect and a regional price effect, each element \( a(i,j) \) being adjusted by \( r(i) \), the average price change applying to the \( i \)-th sector, across all regions, and \( s(j) \), the average price change applying in the \( j \)-th region to all sectors.

The advantage of the use of this method is that it makes the maximum use of the information available, the initial elements (e.g., the current-price valuation) and both sets of marginal totals, whereas the adoption of the elements derived by simple proportionality from either the regional or the sectoral totals and not summing to the second total would involve discarding the information contained in the second total and thus the further component in the over-all effect.
The following abbreviations are used throughout:

SZS : Savezni Zavod za Statistiku (Federal Statistical Office)

SYY : Statistički Godišnjak Jugoslavije (Statistical Yearbook of Yugoslavia)

SB : Statistički Bilten (Statistical Bulletin)

Table 1-1 Sources : SZS : SYY 1966, Tables 203-3, 201-2

SZS : SYY 1964, Tables 203-3, 204-1

The social product figures for 1953 have been adjusted for investment
maintainance, as described in Appendix 2.

1-2 Sources : SZS : SYY 1966, Tables 203-3, 201-2, 203-7, 208-1

SZS : SYY 1964, Table 201-2

SZS : SYY 1961, Table 301-12

SZS : SB 394

The numbers employed in the private sector of agriculture have been
estimated by extrapolation of the census figures for 1953 and 1961,
as described in Appendix 2.

1-3 Sources : SZS : SYY 1964, Table 201-2

SZS : SB 314, Table 2-2

SZS : SB 368, Tables 1-1, 2-1 to 2-9

1-4 Source : SZS : SYY 1945-64, Table 5-5

1-5 Sources : SZS : SYY 1945-64, Tables 5-15, 3-23

1-6 Sources : SZS : SYY 1945-64, Tables 5-15, 3-23

Institut za Ekonomiku Investicija (1964, parts 3, 4)

The figures in the various columns are slightly non-comparable;
output figures are net and investment figures gross, the corresponding
categories being unavailable; the social product figures cover the social and private sectors, the investment figures the social sector only; the shares in national income are valued from 1960 prices, the shares in investment from 1962 prices.

2-1 Sources: Narodna Banka: Mesečni Statistički Bilten, issue no. 2 of each year: 1965, Table 41
1964, Table 36
1963, Table 27
1959-62, Tables 19, A20-A22, A37-A39
1958, Tables 18, A19-21, A36-38
1957, Table 29
1956, Table 42/4 in typescript supplement.

Figures from these sources contain a large number of minor discrepancies, not of sufficient size to affect the percentage calculations.

Investment maintenance, as calculated above, has been deducted from total and enterprise investment, 1953-57.

The 1963 figure excludes the special federal allocation of 61.4 billion dinars for the reconstruction of Skopje.

'Other investment funds', for housing, schools etc. are included in budgets.

2-2 Sources and adjustments are as for Table 2-1.

The figures for investment in housing 1953-54 are not available.

In 1953-54, before the reorganisation of local government, districts and communes were not separate units.

2-3 Sources and adjustments are as for Table 2-1.

2-4 Sources: Institut za Ekonomiku Investicija (1964, part 4), (1962)

The conversion to constant prices is described in Appendix 2.
Investment maintenance has been deducted from social product and amortisation 1953-57, as described in Appendix 2.
The sources and compilation of the employment figures are given in Appendix 2. Unemployment figures for Serbia Proper, Vojvodina and Kosmet are not available for 1953, and the figure for Serbia has therefore been allocated in proportion to each region's share in unemployment in Serbia in 1952.

4-12 Sources: SZS: SYY 1966, Table 203-1

The sources and compilation of the employment figures are given in Appendix 2.

4-13 Sources and compilation of figures for social product at constant prices by region and sector, and employment by region and sector are described in Appendix 2.

4-14 Sources: SZS: SYY 1966, Tables 203-3, 201-2

SZS: SYY 1964, Tables 203-3, 204-1

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Investment maintenance has been deducted from social product 1953-57 as described in Appendix 2.

4-15 Sources: SZS: SYY 1965, Table 221-1

SZS: SYY 1961, Table 320-1

SZS: SYY 1945-64, Table 19-14

Organisation for Economic Cooperation and Development (OECD) (1965), Table 34.

OECD, for the enrolment rates, quotes the Yugoslav Federal Planning office. Following the OECD convention, the figures refer to the school year ending as quoted, i.e. 1953 refers to the school year 1952-53. The enrolment rates are given as a percentage of the children in the age-group 3-15 years which, since Yugoslav children may begin school at age 7, tends to overstate the enrolment rate.
The numbers enrolled are shown as a percentage of the relevant age-groups, 11-15, 16-19, and 20-24 years.

The figures for 1954 are the annual average, those for 1958 refer to 31 March and those for 1964 to 30 September.
5-11 As Table 5-1
5-12 As Table 5-3

6-1 Sources and compilation of social product at constant prices by region and sector are described in Appendix 2.

6-2 As Table 6-1

6-3 Sources: SZS: SYY 1966, Tables 203-3, 203-1, 201-2
       SZS: SYY 1964, Tables 203-3, 204-1
       SZS: Indeks, nos. 2-3, 1966

Social product at current prices in 1953 has been corrected for investment maintenance, as described in Appendix 2.

The price index for ship-building has been taken as the same as for metal manufactures, for transport from the cost of living index and for printing, miscellaneous and crafts as for industrial prices in general.

6-4 Sources and compilation of social product by region and sector at constant prices, and investment by region and sector at constant prices are described in Appendix 2.

A-1 Sources: SZS: SYY 1966, Tables 203-3, 201-2
       SZS: SYY 1964, Tables 203-3, 204-1

The social product figures for 1953-57 have been corrected for investment maintenance, as described in Appendix 2.

A-2 Sources and compilation of social product by sector and region at current prices and employment by sector and region are described in Appendix 2.

A-3 Sources and compilation of social product by sector and region at current prices are described in Appendix 2.

A-4 Sources: SZS: SYY 1966, Table 203-3
       SZS: SYY 1964, Table 203-3
Investment maintenance has been deducted from social product in 1953-57, as described in Appendix 2.

A-5 Sources and compilation of investment by region and sector at current prices are described in Appendix 2.

A-6 Sources and compilation of social product by region and sector at constant prices, and employment by region and sector, are described in Appendix 2.
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