NATIONAL DEVELOPMENT STRATEGY FOR MACEDONIA

DEVELOPMENT AND MODERNIZATION

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NATIONAL DEVELOPMENT STRATEGY FOR MACEDONIA

DEVELOPMENT AND MODERNIZATION

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PREFACE

This Project, MCD/95/001 "Preparation of a National Development Strategy for the Republic of Macedonia", was initiated by the Government of the Republic of Macedonia and the United Nations Development Programme (UNDP) in 1995. The Project was financed by UNDP and the Republic of Austria, and implemented by the Macedonian Academy of Sciences and Arts and the United Nations Department of Economic and Social Affairs (formerly Department of Development Support and Management Services, DDSMS). Technical support was also provided by the Vienna Institute for Comparative Economic Studies (WIIW).

The basic aims of the Project were to prepare a document of strategic relevance to the existing economic and social situation in the Republic of Macedonia, and to achieve a transition to permanent and sustainable economic growth and modernisation. The task was assigned to the Macedonian Academy of Sciences and Arts. The Academy formed 26 working groups, each for a different domain relevant to the strategy. These teams included 70 scientific and scholarly researchers from the Academy, from several faculties and institutes, and experts in the field of the economy. Each group prepared a report on a particular field.

The first version of the study on this Strategy was the subject of a joint review carried out together with experts from the Vienna Institute for Comparative Economic Studies at a working meeting held in Ohrid. The comments and suggestions made at this meeting have been taken into account in finalizing the Strategy.

The Project management team prepared the basic concept of the Project and was in constant contact with the working groups and the experts from the Vienna Institute, analysing and coordinating the findings, attitudes and proposals on each topic. It also held several working meetings in which all the associates participated and then separately with the Vienna Institute. Finally, the management team carried out a complete and thorough revision and editing of the entire material and prepared this comprehensive study on the Strategy as a consistent conceptual and structural whole.

The basic features of the Strategy are the following:

First, it is a comprehensive and complex document which indicates the basic developmental orientations and strategic priorities for the Republic of Macedonia, as well as the means for their realisation.

Second, the Strategy starts with a real and objective evaluation of the current situation, the development potentials and the domestic and external constraints, both within the country and in its broader external surroundings.

Third, the Strategy takes into account the possible and optimal combinations of the various factors of development, above all, investment capital, labor, and technology, and, on the other hand, the need for reform of the macro-economic environment, so that it corresponds with and makes possible the achievement of sustainable long term economic development.

Fourth, the Strategy points to the basic sector priorities and the developmental orientations of each particular sector.

Fifth, it also analyses certain basic short-and medium-term quantitative relations and indicators, such as: the growth of the gross social product, the investment levels, the employment and unemployment levels, the balance of payments and the external debt, the level of public consumption, macro-economic stability, etc. However, detailed macro-economic models and input-output analyses will have to be the subject of a separate, new, project.

The Project has been prepared to formulate a Strategy and not a plan or a programme. It is a strategy embracing the reforms necessary for economic transition, for the macro-economic and developmental policies of the Government and for the business ventures of enterprises.

The projected long-term period to the year 2020 is not a strictly determined span of time – nor can it be such. It is in effect a vision. However, the Strategy is not only a global vision, but also a determination in favour of certain fundamental and specific solutions to particular questions.

The Strategy is not and cannot be an exact mathematical extrapolation of statistical series or a quantitative establishment of inter-dependencies, either. This would, in any event, be impossible with the conditions of totally disturbed trends, that faced the Republic of Macedonia in the nineties. Therefore, the mathematical variables and assumed development rates which have been adopted should not be viewed as strict and precise aims (targets) of macro-economic and development policy. In effect, this project only creates a model necessary for the comprehension of its components

and for achieving achieving economic equilibrium at a higher level of development.

In brief, the basic methodology employed in the Project and the elaboration of this Strategy stems from a realistic technical assessment of the development potential of the Republic of Macedonia. The analysis underpinning the Strategy which has been undertaken by the Macedonian Academy of Sciences and Arts is comprehensive and exhaustive. In addition, a number of ideas have been developed from the original project concept and further elaborated in the Strategy. The valuable suggestions of the Vienna Institute for Comparative Economic Studies have been taken on board, along with some themes taken from the Strategy of the Economic Development of the Republic of Slovenia, prepared in 1995 by the Institute for Macro-economic Analyses and Development in Ljubljana. Slovenia's development strategy as elaborated in this document was considered one of the most relevant to the circumstances facing the Republic of Macedonia.

The management team, in agreement with the Project Committee of the Government of the Republic of Macedonia, decided to focus its attention on the economic development and modernisation of the economy with close attention to the attendant social and environmental issues. In fact, a large number of projects, financed by various international institutions, on particular non-economic activities, on particular aspects of political life, on the social problems of the population, etc., are in progress of being prepared at present in the Republic of Macedonia. The Strategy for Development and Modernization provides the longer term framework for these initiatives.

DESCRIPTION OF THE COUNTRY

The Republic of Macedonia is one of the small countries of the Balkan Peninsula. With its 25,713 square kilometres and a population of two million, it is located in the central part of this geographical region. In terms of its size and its internal geographical features, the Republic of Macedonia can be compared with Slovenia, but with the difference that the latter is much closer to central and western Europe and is economically more developed.

The 1994 population census showed the following structure according to nationalities: Macedonians 66.6%, Albanians 22.7%, Turks 4.0%, Serbs 2.1%, Romanies 2.2%, Vlachs 0.4%, others 1.9% and undeclared 0.1%.

The Republic of Macedonia has no access to the sea. Its immediate neighbours are: F.R. Yugoslavia (Serbia) to the north, Bulgaria to the east, Greece to the south and Albania to the west. The nearest ports are Thessaloniki on the Aegean Sea (Greece) and Durres on the Adriatic (Albania). The following transport corridors, however, traverse the territory of the Republic of Macedonia: (a) from north to south, and vice versa, i.e. from western and central Europe via Belgrade and Serbia to Skopje and thence southwards to Athens and (b) from east to west and vice versa, i.e. from Turkey, the Black Sea, Ukraine and Russia via Bulgaria and Sofia and thence through Macedonia and Albania to the Adriatic Sea and Italy. These corridors are of vital importance to the country. With its airports in the capital city of Skopje and in Ohrid, the Republic of Macedonia is linked via airlines with the entire world. Likewise the existing telecommunications links make possible direct contact with all major capitals of the world.

The Macedonian people (like all the other peoples of the Balkans) has had a centuries-long national-cultural existence and a language of its own – Macedonian – within the group of the South Slavonic languages; hence its lengthy pursuit of national recognition and state independence. While the majority of the other Balkan peoples achieved these goals either in the course of the 19th or the first half of the 20th century, the Macedonian people only achieved national state independence towards the end of

the Second World War. The Republic was formed on **2 August 1944** *and then became a constituent part of the Yugoslav Federation under the name of the Republic of Macedonia, the name that it has borne from that time until this day. Within the Yugoslav Federation the Republic of Macedonia enjoyed extensive internal independence to the same degree as the other then Yugoslav republics.*

Complete state sovereignty and independence were achieved on the collapse of the Yugoslav Federation. State independence was proclaimed on 8 September 1991. The new Constitution of the Republic of Macedonia was passed on 17 November 1991. There then began the processes of its recognition by other states throughout the world and of the establishment of diplomatic relations. Macedonia was accepted into membership of the United Nations in 1993 and today is a member of a large number of European and international organisations.

Relations with the neighbouring countries have not yet been completely freed from the well-known "Balkan mortgages" which are a result of past history. For these reasons the Republic of Macedonia, on its gaining of complete state independence, proclaimed a policy of equidistance with regard to its neighbours, indicating an equal readiness for friendly relations with all the four neighbouring states but without any particular linking-up with any of them. Citizens of all these states have continued to communicate with one another in a normal fashion and unhindered, even during peroids of inter-state misunderstandings. The fundamental orientation of the strategy underlying the policy of the Republic of Macedonia, which has been frequently repeated and is espoused by public opinion within the country, is one of complete integration into Europe and full membership of the European Union.

In terms of the level of its overall economic development, the Republic of Macedonia belongs among the lower group of medium-developed countries (lower-middle-income economies) together with Bulgaria, F.R. Yugoslavia, Romania, Turkey and Croatia. In the past, and up to the middle of the twentieth century, Macedonia was a typical agricultural country. The majority of the population lived in villages or small towns. The chief occupations were crop-farming and animal husbandry. Agricultural over-population (the number of inhabitants in comparison to the natural resources) led to temporary migration of the work-force to the larger urban centres of the Balkans and permanent emigration to Canada and the U.S.A.

In the second half of this century there was a process of swift industrialisation and urbanisation. Migration of the rural population was then

redirected to the towns. All the towns which had previously existed experienced rapid development and in particular the capital city, Skopje, which reached a population figure of more than half a million. Permanent economic migration – mostly to Australia – continued, and was followed by migration of workers to temporary employment in western Europe. Urban over-population began to appear (resulting in a large number of unemployed in the towns of Macedonia) so that a reverse flow of migrants from towns to the rural areas, both temporary and permanent, followed.

The economic development of the Republic of Macedonia as an equal federal unit of the former Yugoslavia in the period after World War Two and since its independence has several characteristic phases:

– After the renewal in the first few years of the economy which had suffered heavily as a result of the war, from 1947 there was a nationalisation of private property and comprehensive economic planning was introduced as well as administrative management into enterprises and, on these bases, there began an enforced industrialisation. A relatively swift but also extensive growth of the various sectors of the economy was achieved.

– In the sixties, several significant structural reforms took place: a decentralisation in the relations between the central government and the federal units, self-management and a liberalisation of the status of the enterprises, an intensification of the economy with an increase in efficiency, reconstruction and modernisation of plant and facilities, expansion of foreign trade and of competition from abroad.

– In the period 1972–79 there was an expansion of investment in a large number of new sectoral objects utilizing funds drawn from foreign loans.

– The 1980s saw an overall economic crisis, stagnation in production, growing external indebtedness of the economy and high inflation, resulting in a halt in new investments, a growth of unemployment and a drop in the standard of living. This was followed by increased political instability.

– Between 1991–95 rapid transition of the economic system took place with all its characteristic features, including a spontaneous restructuring of the sectors, privatisation of public capital, liberalisation of markets, etc. At the same time there was a drastic fall in industrial production, in levels of construction and in tourism, the appearance of the grey economy, a fall in the standard of living, extremely high unemployment, etc.

Since 1996, the prospects have improved for a relaxation of economic policies with the achievement of monetary stability, with slower growth of the economy, and stabilisation of the small business sector. These positive elements have however been offset by increased social stratification.

NATIONAL DEVELOPMENT STRATEGY FOR MACEDONIA

Development and modernisation

Executive summary

1. The National Development Strategy (Strategy for short) is a major effort to identify the ***development and modernisation challenges*** *that face the Republic of Macedonia in the process of social, political and economic transformation that it has pursued since gaining independence in 1991 and abandoned socialism so as to build a free civil society, a democratic state and a market economy. The work on the strategy has mobilised a large number of Macedonian economists and social scientists as well as foreign researchers and consultants. It has come at the moment when the Macedonian economy is emerging from a deep transformational recession and is starting to grow and expand. The Strategy should help the government of Macedonia as well as its public* ***to structure their policies and debates*** *as they move into the 21st century and into European integration and the new global economy.*

2. The Strategy has drawn upon an extensive and comprehensive series of background monographs and papers which were discussed in depth at the Ohrid workshop held in November 1996. It covers the following areas:

- *The* ***basic preconditions for development*** *starting with the level of development already attained, the resources that are available and the institutional and policy reforms that have been undertaken or should still be undertaken and implemented.*
- *The* ***key factors of development****, first describing the state of the available factors of production, together with the need for their long-term restructuring, and then treating the possibilities for their short-term revitalisation, further development and modernisation.*
- *The discussion of* ***development strategies for specific economic sectors reviews*** *the goals and instruments for the long-term development of industry, agriculture, services and technology.*

♦ *The* ***development of infrastructure*** *analyses the modernisation and development potential of transport and communications, of energy and water supply, and of the other utilities, and discusses the problems of the protection of the environment.*

♦ *The Strategy ends with a discussion of the* ***possible scenarios*** *of development, optimistic and pessimistic, to 2020.*

3. The Strategy discusses the goals and policies that should be conducive to Macedonia's development and modernisation.

Development *is defined in broad terms as the strengthening of civil society, social progress, the rule of law, political responsiveness and economic growth.*

Modernisation *includes emphasis on the process of catching up with the developed countries, the process of technological and scientific advance and that of the further development of the civil society.*

The document concentrates on the wider economic aspects of development and modernisation and on the more general social, legal and political framework necessary to support these objectives.

4. The Strategy identifies the following key economic goals:

♦ ***Open economy****. The Strategy makes it clear that it views Macedonia as a small open economy (population about 2 million and current GDP around 4 billion dollars). This implies that the Macedonian economy is a* ***price-taker*** *(i.e., the prices of the goods it produces cannot deviate significantly from world prices) and a* ***policy-taker*** *(i.e., trade, monetary and fiscal policies have to be aligned with those in the more developed countries with which Macedonia wants to converge). It is thus concluded that the Macedonian economy has to be as open as possible and integrated into the region as well as into Europe and the global economy in order to achieve sustained high growth since its internal market is rather small.*

♦ *In the period covered by the Strategy – to the year 2020 at the latest, the process of transition should be concluded. In institutional, social, political and economic terms, Macedonia should by then be a modern, developed, democratic state with a strong market based economy. In this period, also, it should become a member of the European Union.*

♦ ***Macroeconomic stability*** *is seen as a crucial goal and also a vital instrument for achieving development and growth. At present, inflation is low and the budget deficit is small (less than 5% per year and about 1% of*

the GDP respectively). This should be sustained in order to make Macedonia attractive to investment both domestic and foreign. Indeed, macroeconomic stability should especially help attract foreign direct investment that will be relied on for a long time because of the low level of domestic savings.

♦ *The process of transformation should lead to an increase in* ***overall economic efficiency*** *and to a transition to sustainable growth. It is with an eye on these goals that the process of privatisation and restructuring has been designed and executed and should continue in the future.*

♦ *The Strategy recognises the need to pay more attention to* ***employment*** *generation and to the improvement of the* ***social well-being*** *of the population. The shocks associated with the break-up of the former internal Yugoslav market and the adverse circumstances for foreign trade development in the region, has forced the Macedonian economy through an exceptionally severe transformational recession (GDP in 1996, close to US$ 2,000* ***per capita,*** *was only 50% of that in 1989 and industrial production has suffered even more). Unemployment has risen with adverse effects on the welfare of the population and the levels of poverty now becoming a serious problem. Therefore, future development has to aim at lowering the level of unemployment, raising incomes and the welfare of the population.*

♦ *Since Macedonia is a small open economy, an* ***export orientated strategy*** *is seen as most important. Already, trade in goods and services accounts for more than 80% of GDP. However, due to problems with the competitiveness of the Macedonian economy during its transformation, imports have been growing much faster than exports. This trend has to be reversed so that exports should become the engine of economic growth and development. Export orientation means much more than just an improvement in the trade balance. It also means better quality of goods and services, improved technology, greater use of knowledge and skills and, as a consequence, a more sustainable type of growth.*

5. The Strategy takes detailed account of the country's resources for development and of the factors limiting its development potential. Among the former, it lists the well qualified working force, favourable natural resource base, the well developed infrastructure base and a significant level of industrialisation. Among the latter it recognises the low overall level of economic development, the small size of the economy and the fact that it is land-locked, the low level of domestic savings, the general technological backwardness, high dependence on the imports of capital goods, oil and gas, and the high level of unemployment.

6. Among the general pre-requisites for development, further modernisation of the civil society and of the state is especially emphasised. The fundamentals of the political system, as set down in the constitution, are to be respected and strengthened especially in the area of rights and freedoms, multi-ethnic equality and coexistence, the rule of law, political pluralism, division of power, and the enlargement of local self-government. Macedonia is to develop as an open society and a democratic polity based on respect for the rule of law.

7. The economic role of the state is analysed extensively because of the legacy of socialism and because of the specific role that the state has to play in the process of transition. It is concluded that the overall justification of the involvement of the state should be based on the protection of public interest which should be furthered by ***indirect rather than direct instruments****. The state should be continuously concerned with facilitating the strengthening of the rule of law, with furtherance of market liberalisation, with macroeconomic policy and with the improvement in the social well-being. The state's capabilities should be developed in the areas in which it has distinct advantages as compared to those of the civil society and the markets. It should not be expected to take over their responsibilities.*

8. Privatisation is one of the major tasks of the whole process of transition. This process in Macedonia has been moving forward steadily and the programme as originally designed is near completion. In the next period, denationalisation should also be accomplished, the privatisation of agriculture (which has already started) should be finalised and the privatisation of the banking sector and of utilities should be speeded up. Macedonia's private sector is already contributing more than 70% to the nation's GDP and the country should aim to become a ***private ownership market economy****.*

9. Restructuring is seen as the key to sustainable growth. In the initial period of transition it has mainly been defensive due to the large shocks that the Macedonian economy was exposed to. Further restructuring should show increasing adjustment and responsiveness to market influences and be in accord with the main strategic goals of modernisation and growth. The Macedonian economy should increase its competitiveness in terms of what it produces, of the quality of its products and of their prices. The whole catching-up process means that the structure and quality of Macedonian production and services should look like or come close to those that are to

be found in the developed European economies. The same applies to the restructuring of the governance structure in firms in order for them to resemble modern corporations.

10. For privatisation and restructuring to proceed and bring beneficial results, further legal reforms and institutional developments are required. In the category of the former a number of laws, e.g. the law on bankruptcy, will have to be passed; indeed, there is quite a lot to be done in the ***transformation of the legal system as a whole****. As for the latter, the legal and institutional basis for the existence and development of the financial markets in particular will have to be established. However, there is still quite a lot to be done in the general process of building of the* ***institutions of a well-functioning market economy****. The Strategy details the legal and institutional reforms needed.*

11. The Strategy recognises the crucial importance of the development of the monetary and the banking sectors. Macedonia introduced a new currency, the Macedonian denar, in 1992, created a central bank and restructured its banking system. The Strategy strongly supports:

- *the stability of the currency,*
- *the independence of the central bank, and*
- *the privatisation of the commercial banks.*

An efficient and competitive banking system is seen as a major contributor to sustained growth and development of the economy.

The Strategy examines in some depth the short- and medium-term economic policy problems and options. It suggests that concern for macroeconomic stability has to be weighed against the potential for economic growth. Thus, it suggests that economic policy should focus on possible improvements in the areas of the exchange rate and monetary policy to facilitate an increase in the competitiveness of the Macedonian economy and especially of its industry while preserving the existing price and exchange-rate stability.

12. The Strategy describes in detail the changes in the system of public finance with fiscal consolidation, the reduction or almost elimination of the budget deficit, the simplification of the tax system and with this the broadening of the tax base. The introduction of VAT is supported, further reduction in public expenditure is advocated and fiscal decentralisation is suggested. The Strategy strongly supports a ***policy of balanced budgets*** *and*

of keeping the level of public expenditure at levels that are appropriate for a developing economy, i.e. at levels that will not prove to be an added burden to competitiveness and thus to faster growth and development.

13. Macedonia is seen as a small economy that depends crucially on being open to the world market. The current economic difficulties are decidedly connected with the trade shocks Macedonia was exposed to in the nineties. For these reasons, ***liberalisation of foreign trade and a low level of tariff protection*** *are seen as the long-term policy orientations of the Macedonian economic policy. Especially important is the growth of exports given the smallness of the Macedonian market and the high and growing trade deficit that the country is facing. These developments should also be conducive to the strategic goal of Macedonia becoming a member of the European Union. Growing openness and flourishing foreign trade should go a long way towards preparing Macedonia for future European integration.*

14. In the short-run, the significant trade and current account deficit is likely to put a strain on foreign debt servicing needs and on the foreign currency reserves. Macedonian development will therefore depend for a long time depend on the inflow of foreign credits and investment. The foreign debt position of Macedonia has been regulated with the agreements with the Paris and London Clubs as well as with the IMF and the World Bank. It is also expected that foreign investments will contribute significantly to the growth of the economy, to the growth of exports and to the eventual normalisation of the current account. The Strategy supports policy measures that would be conducive to long-term high levels of investment.

15. The Strategy places great stress on ***modernisation of the public sector****. This is to be expected in a post-socialist country which used to have a very large public sector. The approach adopted recognises that public sector development is justified where there are significant market failures. However, the strategy is careful to avoid the risk of replacing public failures with market failures. Thus, responsibility for defending the public interest is not taken away from the market but is supplemented by appropriate types of public regulation.*

16. The process of transformation has put ***special strains on the whole social system****: the large number of unemployed, the large burden of pensions as well as of the health care system. The whole system of social security has to undergo radical reform.*

Unemployment benefits *have to be designed in such a way that they will stimulate work and employment.*

The ***pension system*** *will have to be transformed from the current pay-as-you-go funding to one that will rely on private pension funds.*

The ***health care system*** *is especially sensitive because it contributes significantly to the quality of the human capital. The reform will be have to introduce private insurance systems as well as privatisation of the health-care institutions.*

17. ***Poverty*** *is a growing problem in Macedonia. About 40% of the population have experienced a deterioration of their welfare in the process of transition. About 10% of families are recipients of social security benefits. The social security benefits are tied to the officially defined poverty line. The reform programme will have to introduce a much more sensitive system of social security benefits.*

18. Education and scientific achievement are treated as important factors in development. It is noted that these sectors have suffered in the process of transition. The problems of growing unemployment of the educated labour force as well as the growing migration to foreign countries are acknowledged as particularly difficult and serious. The strategy advocates measures designed to reverse this trend. Indeed, the general modernisation of all levels of ***education is seen as a crucial investment in human capital,*** *in the development of the civil society and in the furthering of social and cultural stability in general.*

19. Regional development is seen as very important. Macedonia is a small country, but regional differences are still significant. They also have consequences for inter-ethnic relations which are crucially important for the stability of the country. The Strategy envisages a policy of regional development that should make it the case that there is ***optimal development of the respective regions*** *based on the comparative advantages they have. Also, it is stressed rather strongly that the fiscal centralisation that exists at the moment should be reformed in order to make more room for the regions and for local government to take care of their social and economic growth and development.*

20. Among the main factors of development, ***human capital*** *is taken to be exceptionally important. Transition has put pressure on the demo-*

graphic, social and economic characteristics of human capital especially in terms of the use of skills and knowledge as well as of the development of the whole process of education. The Strategy discusses in depth the important aspects of human capital development.

It is argued that the long term ***migration trends should be reversed.*** *Macedonia is a country with significant internal and external migration. The former relates to the movement from the country to the towns. This has led to an urban-rural distribution that is not optimal. The latter relates to the long-standing tradition of people of all ethnic backgrounds to migrate out of Macedonia to European countries or overseas. In the recent years, outward migration has particularly taken toll of young and educated people because of rising unemployment. The Strategy argues that a suitable policy instrument should be used to reverse these developments. Modernisation should make rural life more attractive and a growth of employment should bring in incentives for people not to look for work abroad.*

In connection with the use and allocation of the human capital, ***labour markets*** *are given due consideration. Their working should be viewed together with the movements in the employment and unemployment. Transition has hit employment hard. The estimate of the unemployment rate vary from 25% to 31% (according to the ILO methodology) to a staggering 40% according to the admittedly dated methodology of official statistics. Whichever way it is measured,* ***unemployment is a key problem for the Macedonian economic and social development.*** *The Strategy does not foresee a quick solution to this problem. The growth of employment is seen mainly as a function of growing investments and of labour market flexibility. In addition to that, the Strategy suggests a significant modernisation of the labour markets, both state and private, to speed up the process of information transmission between employers and employees. This should lead to the lowering of fictional unemployment (unemployment among those searching for otherwise available jobs). Labour market flexibility, on the other hand, should work to diminish the level of involuntary unemployment (i.e. people looking for jobs that are not available at the going wage-rate).*

21. The Strategy turns next to ***capital and investments.*** *In real terms, the capital stock existing in Macedonia is not technologically advanced and its capacity is under-utilised. This is the outcome of a prolonged low level of investment and of technological innovation. This trend cannot be reversed through an increase of domestic savings because those cannot be expected to be very high. Because of that, the strategy recommends three things:*

♦ *An* ***increase in the level of savings,*** *which is now quite low due to the low level of income and to problems in the banking system.*

♦ ***Increasing reliance on foreign credits and direct investment.*** *Macedonia has not been very attractive for foreign direct investment for reasons of the significant political and economic risks that it lived with in the last half dozen of years. However, the situation has changed now and an openness to foreign investment is very desirable.*

♦ *The Strategy notes that the stabilisation efforts as well as the effort to rehabilitate the banking systems has led to high or very high real interest rates. These rates are not conducive to investment. Therefore, it is recommended that* ***efforts be made to lower the interest rates*** *in order to bring in incentives for more investment. In addition, fiscal measures that lower the taxes on income and profits of corporations is recommended. Low interest rates and low taxes should be the environment that should make the rate of investment high enough for a sustained high rate of growth.*

Reliance on foreign credits and investments has an obvious limitation in the form of the ***foreign debt*** *that the country can service. Macedonia has regulated all its foreign debts and can be considered as a* ***moderately indebted country*** *(debt stock is about 1.1 billion dollars in 1997, mostly in long-term credits). However, persistent current account deficits and longer term reliance on foreign capital may raise the burden of foreign debt beyond a sustainable level. This is a general problem of growth and development and can be alleviated with a* ***bold export orientation and trade liberalisation.***

22 Apart from labour and capital, ***technology*** *is the factor that contributes most to economic growth and development, and to modernisation in particular. Two aspects of technological advance are emphasised:* ***innovations and transfer of technology.*** *The former is a function of the overall incentives for entreprenership and the money spent on research and development. The latter depends decisively on an increase in investment and on the openness of the economy because in many cases the introduction of new technology requires larger markets in order to be profitable.*

23. Macedonia has attained a significant level of industrialisation. In the past few years the sectoral structure of production has changed dramatically. The services sector has expanded its share of GDP while the share of industry has shrunk. These developments underline the need for strategic treatment of the development of the main sectors of Macedonia's

economy as it develops and modernises. The general strategy is that ***Macedonia should aim at developing as a modern industrialised economy with a vibrant services sector and highly productive agriculture****. This general goal is elaborated in the specific sectoral chapters of the Strategy Report.*

24. Macedonian industry has had to take the brunt of the transformation costs. Built for the larger and more protected former Yugoslav market, it has had to adjust to the smaller domestic market and to the more competitive foreign markets. These shocks have led to the process of de-industrialisation with a number of key industries shrinking or even disappearing. The Strategy, however, calls for a revitalisation of the Macedonian industry. There are good prospects for the rehabilitation and development of the extraction industry, of manufacturing and of the processing industry in general.

25. Agriculture has gone through transformational recession and has yet to restructure through privatisation of the socially-owned firms. However, Macedonia has a comparative advantage in the production of some early fruit and vegetable products as well as some specific agricultural products with a high export potential (e.g. tobacco). The production of grain and meat is also quite significant. These forms of primary production open up significant possibilities for the food processing industry that should be modernised, diversified and expanded. The Strategy takes agriculture to be a sector with a long-term perspective in Macedonia.

26. The process of transition has seen a rapid expansion of the services sector in Macedonia. Trade, financial services, food and catering as well as the other services have expanded to take more than a 50% share in the country's GDP. This sector is in need of modernisation and further development.

27. Transport, communications, utilities and the environment comprise the main sectors of the infrastructure. Macedonia has a developed infrastructure and a generally preserved environment. However, further social and economic development demands the development and modernisation of these sectors too.

Transport is in need of further development. Due to the political situation in the last fifty years or so, Macedonia has not developed its connections with its neighbours to the east and west, i.e. with Bulgaria and Albania. The building of roads and railroads in these directions is a priority.

The same goes for the modernisation of the main north-south highway. In general, the strategy envisages significant investments in the modernisation and further development of all types of transport and communications in the next period.

28. Macedonia imports oil and gas. These dependencies will continue. However, the development of other sources of energy, especially of water power, should be intensive in the next period. The same goes for alternative sources of energy, e.g. solar energy, where it can be used.

29. Water is a moderately scarce resource in Macedonia. For its multiple uses significant and continuous investment is going to be necessary to satisfy the growing needs of industry, the population, agriculture and the energy supply through hydro-power schemes. The economics of water supply will be very important from the point of view of the privatisation of supply and appropriate pricing in its various uses.

30. Development and modernisation puts a strain on the environment. This implies the need for a concerted effort to strengthen environmental safe-guards. As Macedonia aims to become a member of the European Union, it will have to adopt and implement the standards that apply to this integration.

31. The Strategy ends with a general discussion of the growth scenarios of the Macedonian economy over the next five years. The main target assumed in the forecast is that the growth rate of GDP should take into account the speed of convergence with the more developed countries in the region including the EU. Taking into account the relevant constraints, the Strategy looks at two possible scenarios.

The optimal scenario assumes the average growth rate of the GDP till 2002 is 5.1%. This would enable Macedonia to maintain its level of development relative to other medium-developed countries throughout this period.

The optimistic scenario assumes an average growth rate of GDP of 6%. This would enable Macedonia to make a good start on the path of long-term convergence with the developed European economies.

The pessimistic scenario forecasts a growth rate of 4.2% on average which would still lead to some notable convergence but would not significantly change the relative position the Macedonian economy has at the moment.

The Strategy clearly favours the development and modernisation strategies and policy measures that would make the more optimistic scenario be realised. As a small open economy, Macedonian growth depends mainly, if not exclusively, on internal flexibility to adjust to the changes in the external environment.

32. The Strategy aims to define the main goals of the long-term development of the Republic of Macedonia. It assumes that it does make a difference what path of development and modernisation the country chooses at this historical juncture. ***The Strategy supports the development of a tolerant society, based on the rule of law, democracy and political pluralism and on a market economy that favours private ownership and entrepreneurship. It stresses the belief that strategic reliance on these institutional fundamentals should enable the Macedonian economy to grow fast and to be integrated into the European Union.***

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INTRODUCTION

The historical period the Republic of Macedonia entered in 1991, has shown itself to be in practice complex, hard and unstable. This, however, has been so in all the former socialist countries, where transition to a new historical era has shown similar features, at all times and in all geographical regions.

In the first half of 1992, a project was commissioned by the Government under the general title *Strategy of Economic Adjustment and General Forecast of Economic Development*. The project was undertaken by the Macedonian Academy of Sciences and Arts, with the participation of professors from the Faculty of Economics in Skopje, as well as researchers from other institutions. The emphasis at that time was upon the needs and possibilities of adjusting the economy to the new conditions. The forecasts at that time were short-term, and could only have been so.

Now, approaching the end of 1997, it can be stated with greater certainty that there are now improved possibilities for forecasting the prospects of economic development with a greater degree of realism, and over a longer period. Nevertheless, even now, one should not expect any comprehensive, detailed or strictly quantified indicators for future long-term development. Indeed, in the current circumstances of the market economy, not even the western developed countries prepare or adopt programmes with precision.

I. National Preferences in Development

At the beginning of a strategy for long-term economic development, it is customary to point out, in a global manner, the basic priorities that the country is going to establish. Preferences in the economic sphere are not, of course, determined according to any subjective ideas, nor do they necessarily represent the will of the nation. They are imposed as objective possibilities and realities depending on the level of economic development, the development resources available, the existing mix of international economic relations, etc.

Consistent building-up of an open economy

Since its proclamation of independence and sovereignty, the Republic of Macedonia has declared itself in favour of a democratic and pluralistic political

system. This is the present orientation, and it can be expected to remain such in the future.

It is, however, much more difficult to maintain the principle of an open economy in the real world of complex international economic relations. The domestic economy, as a rule, has difficulties due to intense competition from abroad. Competition resulting from imports is often considered as "disloyal" and leads to calls for trade protection measures. It must be admitted that there are arguments in favour of protection, well known from the theory and practice of protectionism in world economy, at present or in the recent past.

In the case of the Republic of Macedonia, however, there is also the objective reality of a country which is small in territory and in population. Therefore, in a large number of economic sectors, even when there is sufficient supply, the number of enterprises is small, resulting in insufficient internal competition. The way to the market system can be found in the macroeconomic policy of an open economy.

Thus, the conclusion is objectively imposed that one of the preferences for the Republic of Macedonia should be consistent policies in favour of an open economy. Of course, it is essential that macro-economic policy should at all times be capable of permitting external competition, consistent with maintaining the stability of the domestic economy, and within the framework permitted by the World Trade Organisation (WTO). In other words, there should not be any "suffocation" of the domestic economy for non-economic reasons (dumping, grey economy).

Completing the process of transition

Economic transition in the Republic of Macedonia dates from the beginning of the 90s, and in practice it proved to be a much more complex process than was expected, just as in all the other former socialist countries. All the elements of the existing economic system have to be altered, and there has to be a transition to a new economic system of an integral market, with private ownership of the largest part of the available capital and resources, with modern management and entrepreneurship, with restructured enterprises, etc. The period up to the end of the next decade can be considered sufficent for finalizing the whole process of transition.

The structural reforms of transition should overcome the problems arising through privatization and denationalization measures, so that, by the end of this period, what is called a "clear situation" is reached and the process has been largely completed.

Maintenance of macroeconomic stability

Contemporary economic theory and practice have undoubtedly confirmed that, on a long-term basis, it is not possible to have dynamic and stable economic growth without macroeconomic stability. Today's economic development theory has completely abandoned the former standpoint on the compatibility of dynamic growth and development with the existence of high rates of inflation. This should always be taken into consideration in the case of the Republic of Macedonia.

Fiscal and monetary policies have a crucial impact on the preservation of macroeconomic stability. It is especially important that the fiscal policy framework should be in accord with the stabilisation goals of macroeconomic and, especially, monetary policy. Similarly there should be strict conformity with the legal provisions concerning no recourse to inflationary financing of the budget deficit through Central Bank loans, and that the dimensions and structure of public expenditure should be rationalized. The effects of budget expenditure are economically negative when the state borrows on the financial market resulting in pressure on interest rates and the "crowding out" effect, which restricts the availability of investment for the private sector.

Macroeconomic stability is a very important pre-condition for stable overall economic development. In practical terms, price stability is a conducive basis for increasing production and employment in the long term. Conversely, if there is inflation, it is *de facto* impossible to allocate financial resources efficiently, because of distortions in relative prices of goods and services.

This rule is, of course, also borne out in the case of the Macedonian economy. Empirical research confirms that the Macedonian economy achieves its highest growth when inflation is in the 0%–11% zone.

The anti-inflation strategy which has been adopted by the Republic of Macedonia and has been consistently implemented in collaboration with the International Monetary Fund and the International Bank for Reconstruction and Development has produced good results in the short term.

The legal changes in the monetary sphere have substantially strengthened the independence of the Central Bank. Its responsibilities have increased beyond the maintenance of the stability of the national currency to responsibility for the stability of the banking system.

Increase in the efficiency of the economy and transition to lasting and sustainable economic growth

The current problems of privatization, deregulation, stabilization, etc., within the complex process of overall economic transition often provoke dilemmas regarding their effects on macro-economic policy, because of opposing demands for consistent and more gentle implementation.

However, in economics and in economic policy there is a clearly expressed standpoint that the fundamental objectives are: efficiency and growth and the priority is to reach these basic aims.

All measures for economic transition to an integral market system should lead to a higher level of efficiency in all sectors of the national economy. Such a preference is a *conditio sine qua non.*

An increase in economic efficiency can be achieved with the help of internal and external factors. Among them, initially, particular attention should be focused on the optimum use of existing capacities. The present use of capacities is very low. On average it amounts to between 30 and 50%, only half of the level in 1989, when it amounted to approximately 70%.

An increase in capacity utilization can be achieved through ownership, organisational and managerial restructuring of enterprises that are being privatised; through technological revitalisation of certain enterprises and the economy; by improving the marketability and competitiveness of domestic products and services; by raising the number of finished products and through different forms of enhanced co-operation with foreign partners.

In the case of Macedonia, periodic fluctuations in the growth rates of the social product have been caused by shifts in the social, political and ideological orientation, and by changing international political and economic relations. The limited development resources endowment also imposes limitations on the achievement of not only a higher general level of economic development, but also on a growth in production, turnover, services, etc. which is sustainable and resilient to distortions arising from unpredictable external shocks.

Increase in employment and improvement of the social status of the population

For the last hundred years there has been rural and urban overpopulation in Macedonia resulting in unemployment, economic migration and emigration. In the period following the Second World War and up to 1990, macro-economic and social policy attempted to solve the problem by industrialization and absorption of the unemployed in existing and new plants. However, at the end of

that period, there was a registered unemployment of over 10% of the total labour force. One of the difficult problems of the complex process of transition is the fact that overemployment in enterprises has been reduced, but unemployment has increased to over 25%. **This is a very difficult situation for any country which lists among its most basic national preferences, the need for both increasing productive employment and reducing unemployment.** Full employment of the labour force cannot be achieved by the end of the strategic period, i.e. by 2020, but unemployment should by then be reduced to below 10%.

The social status of a large part of the population is a cause for concern. It is at a low level due to high unemployment, the generally low level of economic development and labour productivity, the relatively large number of pensioners, the low incomes of a large number of households etc. The general standard of living and social expenditure are also unsatisfactory and parallel with the increase in employment constitute the basic preferences of the strategy for the forthcoming period. To this must be added the improvement of the social status of the socially endangered population.

Export orientation in the economy and expansion of external economic relations

As a small open economy with relatively limited natural resources and an abundant human potential, the Republic of Macedonia must develop through a markedly outward-oriented developmental strategy.

This is the basic orientation for the coordination of macro-economic and developmental policies, especially balance-of-payments and exchange-rate policies. In order to overcome the chronic trade deficit it is necessary that financing the deficit by external debt be replaced by an adjustment policy, with particular concern for increasing exports, expanding external economic relations and increasing the competitiveness of the export sector.

It is necessary to promote existing and potential export possibilities not only of goods (industrial and agricultural) but also of services, including greater foreign-currency inflow from construction and other investment activities abroad, from foreign transit and other tourism and transport services. The inflow of remittances from persons working abroad will be of permanent use as well.

What should in this period be numbered among the national preferences for development, and related to the all-inclusive external economic relations, is **the incorporation of the Republic of Macedonia into the European Union, with all its advantages and obligations. To this end, in this period the**

country will have to satisfy all the economic, political, social and other prerequisites for membership of the Union.

II. Basic Resources Available for Development

Every strategy for the economic development of a country would normally take into account, first of all, the resources available for achieving development through their adequate allocation and combination. Certainly, only those resources which already exist (are available) should be taken into account. Using such an approach, the basic (most important) resources, on which the economic development of the Republic of Macedonia can be based in the forthcoming period will be defined here, starting with the human resources, and then the natural, the infrastructural and the main sectors of the existing economy that can be grounds for further development.

A satisfactory level and qualifications of the labour force

Qualitatively speaking, a qualified labour force can be listed as the first development resource. In Macedonia, there are sufficient graduates annualy from the existing universities to meet the needs of the economy, even when it achieves higher annual growth rates. In Macedonia, there is no inflow of graduates from other countries, but on the contrary, there is an outflow of young people who cannot, under present circumstances, find employment in the country.

Concerning the priority needs of the economy itself, the following faculties can be mentioned: technology and metallurgy, technical engineering, mechanical engineering, electrical engineering, civil engineering, mining and geology, agriculture, forestry, tourism; as well as: economics, science and mathematics, architecture, law, etc. In these faculties there are special departments for: electronics, information systems, business, banking, etc. In these schools and in special research institutes, research is carried out, various M.A./M.Sc. courses are held, and doctoral dissertations are defended. Postgraduate studies on the part of individuals at universities in more developed countries abroad are also necessary.

Throughout the coming period, there is a need to carry out necessary innovations in the education curriculum, improve teaching methods, laboratory exercises, computerisation, field practice, enrichment of libraries and information centres, improve the knowledge of foreign languages, etc., as is the case in the already developed countries.

The qualified labour force is a human resource of enormous importance to economic development in the Republic of Macedonia. Specialized secondary schools for a number of trades and professionss have been established for a long time, with an annual output matching that of secondary education (in addition to the grammar schools which do not aim to produce specialized profiles). Workers' qualifications are, of course, further improved by courses organized in the enterprises and by practical training in the workplace.

The large number of workers who gained qualifications in previous years but are not yet of pensionable age, as well as those who are on compulsory leave or have been laid off as "technological surplus", workers from firms under bankruptcy procedures and the still-unemployed young people, are also an available human resource. Future development should absorb this labour force into productive work in the industrial branches, civil engineering and construction, transport and communications, trade, management activities, etc.

Natural resources

The natural resources of the Republic of Macedonia are characterized more by their diversity than by their abundance. They are relatively modest, but not a factor limiting development. This also applies to climate and hydrological conditions, cultivable agricultural areas and pasture land, and exploitable mineral resources, especially non-metal minerals.

There are several different climatic zones in the Republic of Macedonia as a result of the influence of the Mediterranean climate, on the one hand, and the continental climate on the other, and also because of differences of altitude, although it is a small territory. These zones, combined with the various soil conditions, make possible the cultivation of several types of agricultural crops.

The cultivable soil of 670,000 hectares (27% of the total territory of the Republic of Macedonia) is used for raising grain – wheat, barley, corn, rice, etc. and for industrial crops, such as tobacco, sugar beet, sunflower, etc.

The production and export potential of the vegetable industry are significant. Almost 60,000 hectares (c. 10% of the arable land) are used for orchards and vineyards, largely as modern plantations. Agricultural production serves as the raw-material for a number of food processing factories, in addition to its export potential.

The extensive natural winter and summer pastures (of about 660,000 hectares, approximately equal to the arable land) create appropriate conditions

for sheep-breeding. The sheep stock numbers 2.5 million, and is a traditional export resource.

The most significant mineral deposits are of lead and zinc ore, the exploitation of which is carried out in extraction, smelting and metal-processing industrial plants. Together with the exploitation of nickel, copper, silicium and chromium, these metallurgy and processing plants provide significant net foreign exchange.

Non-metal minerals, unlike the metal minerals, exist in relatively large quantities and are of a high percentage of purity. Their exploitation and processing have created a broad base for a large number of industrial enterprises for processing and, to a certain extent, the export of cement, plaster products, marble, fireproof materials (silicon bricks), ceramic products, building materials, porcelain, bathroom tiles, etc.

Existing basic transport and telecommunications infrastructure

The Republic of Macedonia possesses an adequate basic infrastructure network of transportation and telecommunications, which in interaction with and with its contribution to further economic development will be modernized and expanded, but which even in its present condition is sufficient to make development easier and support it.

The existing road network is about 8,200 kilometres, 4,900 km of which are of modern construction.

Railway transport is characterized by modern facilities and a total length of railway track of 922 km, 233 km of which are electrified.

The two airports, in Skopje and in Ohrid, are equipped for internal and international passenger and cargo air transport, and are in the process of further modernization.

Today, post-office telecommunications are already a relatively developed technical and technological system with a high level of linkage to modern international telecommunications.

Diversified processing industry and civil engineering

Among the basic resources available for the further economic development of the Republic of Macedonia, the potential of the industrial processing branches should be mentioned. Of course, the privatization process should first be finalized, and the internal organization, management, business finances,

technological innovations and marketing orientations of the enterprises should be restructured.[1]

Among the sectors in question are, primarily, the following: the metal-processing industry, chemical industry, food-processing industry, textile industry, leather industry, tobacco industry, non-metal processing industry, production of construction materials, paper industry, etc. Out of Macedonia's total industry in 1990, these sectors provided 68% of the total GDP of industrial activities, or more than one third of GDP. These branches are in large part dependent on imports of raw materials, but this is not of primary importance to their prospects. The choice of technology, an efficient and qualified labour force, an entrepreneural approach, increased exports, etc, are more important.

What can be considered as a development potential is the well-developed civil engineering capacity which has a long tradition of undertaking civil engineering works within the country and abroad, as was the case in the previous two decades. Civil engineering in the Republic of Macedonia has a body of engineers and qualified workers with long experience, but at present only one third of its capacity is being used. It is capable of carrying out the design and construction of various types of buildings, and providing construction materials both from the country and from abroad. It lacks only mechanical equipment of all types which it always has to obtain from abroad.

III. Factors Limiting Development

A strategy for long-term economic development must in advance take into account not only the available resources, but also the conditions which may impede development. In line with the above approach, the more important limiting factors in the case of the Republic of Macedonia are mentioned below.

A low level of economic development

Today, Macedonia is still an underdeveloped country, or, at best, it is at the lower level of the medium-developed countries (lower-middle-income economies, according to the classification of the World Bank), together with its neighbours Bulgaria, Serbia, Romania, Bosnia and Croatia. It has been estimated

[1] The branches of what is known as basic (heavy) industry have not been included, since in the reality of unfavourable mining and energy resources, these sectors have not proved sufficiently successful, even under preferential conditions and with of a protected placement in the former Yugoslavia.

that **the GNP *per capita* in 1996 amounted to 1,860 US $,** calculated according to the current exchange rate, or 1,581 US $ according to an exchange rate adjusted to the movement of prices in the national economy. The highest level of development was reached at the end of the 70s. After that, there was a stagnation of the economy for a whole decade; in the period 1990-1995 the annual GNP growth rates were negative. In 1996, it achieved a positive result. In addition to the annual growth rates, the level of overall development is of special relevance to the long-term strategy.

This fact is of considerable importance to further development, since, **according to what has been generally concluded all over the world, a country at such a level of development is at a "threshold" that requires enormous efforts, as well as appropriate external economic support to overcome.**

A small, landlocked country

The total area of the Republic of Macedonia is 25,713 km^2 and the total population somewhat over 2 million inhabitants.

Regarding the political and also the economic system, the size of the country is not of great importance except in terms of the limited scale of total demand on the domestic market. To overcome the problem of limited domestic turnover, the solution lies, as has already been mentioned, in an open economy, so that foreign trade can cover the needs of production and personal consumption.

However, even if the import of goods and competition is encouraged through the application of intelligent macro-economic policy, the problem of the small scale of domestic production still remains. It is difficult to reach optimum capacities with a small market. What can be recommended here is a business policy of manufacturing a wide range of smaller products. Even this is not a solution due to limits on the attainment of economies-of-scale. The basic solution should, as a rule, be sought in exporting to the world-wide market, which requires continuous effort.

The fact that the Republic of Macedonia is a country without an outlet to the sea is an additional limitation of a geographical character. This problem can be complicated by inter-state political relations. International Law points to the principle of free transit, so that, if we exclude the political aspect, economically the problem clearly depends on existing roads, railways and other transport links and the effective transport costs.

A long-term orientation towards all four geographical directions, and to all the surrounding sea and river (Danube) ports, is essential and is our ongoing interest and determination.

Insufficient domestic accumulation and the need for a relatively high inflow of foreign capital

This limiting factor directly and objectively results from the low level of general development. With the low national income *per capita*, a large percentage of it has to be spent on personal consumption, even for those with a low standard of living. Due to the profound social problems and the necessity of improving the social status, a large part has to be spent for these purposes. Budgetary expenditure has to be added here, which in a small country with relatively developed public functions seriously burdens the national income.

Therefore, a relatively small percentage of the national income is available as capital accumulation for productive investment. An inadequate volume of capital cannot support a satisfactory development of the economy.

Such a situation points to the need for a relatively large inflow of foreign capital, which could fill the "gap". However, there are limits to the inflow of **additional capital in the form of loans**, given the servicing of the already **existing foreign debts** inherited from the former Yugoslavia. On the other hand, a satisfactory level of restructuring of the domestic enterprises in the process of economic transition will require the inflow of private foreign capital.

General technological backwardness and new technologies

In the last twenty or so years, there has not even been a regular replacement of equipment and there has certainly been little or no technological modernisation.

What must be mentioned particularly among the limiting factors impeding further economic development are the yet unmastered and insufficiently introduced new technologies, as a result of the technological stagnation in the 80s and in the first half of the 90s. At the end of the 20th and the transition to the 21st century, there has arisen a new situation all over the world which is qualitatively different from the situation to date. The dominant phenomenon in the social and economic life is the extremely rapid technological development – the new technological revolution. Of special importance are the new, what are called 'basic' technologies, such as: computer technologies (micro-electronics,

cybernetics, new telecommunications), flexible production technologies, the technology of new materials, bio-technology based on genetic engineering, new energy technologies, aeronautics, artificial intelligence, the production of healthy food, integral control of quality, etc.

The economy and the citizens of the Republic of Macedonia, and even the faculties and research institutions, are poorly equipped for the mastering of these technologies and use in practice. In this regard, there has been a vacuum lasting for two decades (since the mid-70s). The only exception is computerization, which has been in full swing in our country for the last ten years, and is expanding and growing very fast in the present period too. But this is simply new means as a potential for the new technologies.

High dependence on imported equipment, oil and gas

In the Republic of Macedonia, the machine-construction industry is poorly developed, and it will have little chance of development in the future. This activity cannot be performed on a small scale, and the recommendation of a wide range of products in small series cannot be applied to the machine industry, automobile industry, etc., because of the need for economy of scale. The only possibility is business production co-operation with large foreign companies producing spare parts, although this is not without technological and legal difficulties.

On the other hand, the domestic market needs a supply of a wide range of equipment. The overall domestic economy needs equipment and means-of-transport industries. This is why this fact has been determined as a limiting factor.

The exceptions are: a) production of household electrical appliances. The number of households in the Republic of Macedonia is over 500,000 which represents a satisfactory demand for any factory; b) production of processing equipment, with single and concrete orders (similar to civil engineering). However, regardless of the official classifications, these two production groups can be included in the metal-processing industry, which, as has been mentioned, is not only a non-limiting factor but is a factor for further development.

There is no special need to prove the limiting character of this issue in the sphere of energy supply, which is extraordinarly important for economic development, for people's lives and for the balance of payments. The Republic of Macedonia is poor in energy supply, i.e. has insufficient classical sources of hydro- and thermo-electric energy of its own.

Current annual needs and potential for processing in the Refinery in Skopje are about 2 million tons of crude oil. By the end of 2010, the needs and

capacities will most probably be doubled, taking into account the export of oil derivatives to South Serbia and Kosovo (data on gas are very difficult to predict). Transport costs for these two energy resources are high, either by railway or through pipelines and either from the nearest port or from the further afield. In the present annual balance of payments of the Republic of Macedonia, the import of oil and oil derivatives alone is a large and inflexible annual foreign currency obligation. Gas will partially appear as a substitute in domestic energy consumption, but not in the balance of payments.

High unemployment

Overpopulation as a phenomenon appeared in Macedonia in the last decades of the 19th century. It took the form of agricultural overpopulation until the mid-20th century. After this, excessive urbanization, together with forced industrialization, created a shift to urban overpopulation, as is the case now. The first two decades of the next century will not be sufficient to solve the problem, and so it has to be regarded as a limitation. It is a limitation because of the fact that it takes a large part of the national income to support the numerous non-productive population. Here, of course we are not thinking of the density of population but rather of the relationship of the total work-capable population to the total range of the remaining available development resources.

In addition to this, unemployment is a difficult economic and social problem and an unbearable psychological burden on the unemployed individuals who, moreover, are productively capable, i.e. they are a part of the work-capable labour force of the total population. This is both a national and, above all, a social problem. It is also a factor limiting the economic development of the country, for the same reason as overpopulation is.

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These points-of-departure regarding the strategy for the long-term economic development of the Republic of Macedonia on the preferences, resources and limiting factors open up a horizon for more detailed research into the orientations and potentials, as well as into the aims and measures of macro-economic and development policy.

PART ONE

INSTITUTIONAL AND SYSTEMIC REFORMS

INTRODUCTORY NOTES

1. It goes without saying that in conceptualising a long-term strategy for the further development of the Republic of Macedonia, there is, in the first place, a need to take into account **the historical phase of development that the country finds itself in.** It is a fact that a new historical period has begun with the beginning of the nineties. This period is characterised by the new, full independence of the state, which requires a completely new organisation of the social and especially the economic systems, which should be efficient in their functioning. A second characteristic is that the transition to a new economic system has begun, as in the other east-European countries.

For the Strategy, this means that certain of the basic principles and orientations have already been determined, and the system should be built up and improved by implementing certain strategic reforms. What is necessary for successful and uninterrupted further growth of material production, turnover and services, as well as of non-economic (public) activities, is a transformation of the integral economic system and its further reformation and advancement as an on-going process.

In this, one should constantly bear in mind that **the processes of transformation take their own spontaneous course** – which is normal in a market economy, while **the smooth functioning of the market is one of the fundamental principles**. The market is said to be an organism and not a mechanism, which means that it has a life of its own and is not, nor should it be, constantly and completely controlled and managed by anyone.

The above observation is particularly significant in the present period of transition when numerous distortions and imperfections are appearing in the market itself. The logic and the practice of the previous system were that the state was essential for an overcoming these anomalies, and that it should intervene, at least through administrative measures and instruments or even ideological and political directives. At present, there are two sources of demands for state intervention in our country. One is the popular belief present in public opinion which considers that the state should solve every problem, even if it is a personal one. The other demand comes from certain companies

and economic groups which constantly seek protection, privileges, stimuli, guarantees, preferences, import levies, discounts, reduced taxes, reduced debts, etc., from the state. No matter how politically unpopular it is, science still recommends that the state be restrained and cautious.

This does not exclude the need for and justification of appropriate functions on the part of the state. This goes both for countries in transition and western countries with a market economy. In this period it is also normal that the state should have its own appropriate role and responsibilities because of, among other things, the problems arising out of the reforms.

2. The scope of even the basic global orientations of the strategy is broad. Some of the problems facing our country at the present time have been inherited from the two or three previous decades (especially from the ten-year-long crisis of the eighties); others have appeared during transition to date, while yet others have been created by the events in the region.

Here particular mention should be made of **grave problems in the social sphere:** the impoverishment of a large section of the population resulting from the new social stratification; the extremely high percentage of unemployed; the large number of retired people; the fall in the standard of living as a result of the decrease in real terms; the deterioration in the quality of life of a large number of families as a result of the above.

There are also certain objective reasons for some of these problems as, for example, inherited urban overpopulation; the high birth rate of certain ethnic groups; the inappropriate qualifications of certain of the members of the younger generation, etc. It is also indisputable that **the crisis situation that the economy has been in for a considerable period of time is the main reason for most of the problems.**

The transition to a new economic system which began in 1990 is still underway, not, however, as a strictly programmed process but more as a social **transformation accompanied by a large number of problems, surprises, interruptions and dilemmas.** Indeed, this has been the case in past periods both here and in other countries, eastern and western alike. In the history of society, not only is there determinism, but there are no, figuratively speaking, "controlled chemical reactions".

A strategy for economic adjustment is a more difficult task than any production development strategy. The character of the tasks is such that it provokes contradictory phenomena in practice. For instance, certain of the orientations come to the surface only to a limited extent in practice, while certain of the programmed measures are slow to be accepted. On the other

hand, the practice creates processes which evolve very fast, even if they have not been foreseen in the programmes.

Something which can be pointed out as an example of the aforementioned is the appearance of a self-created private sector in small businesses (even before the privatisation of social ownership) and its independent growth in conditions of a market economy. The presuppositions about the anticipated processes were that the private sector would be formed with the privatisation of the former social ownership. But it was sufficient to lift the previous legal and ideological barriers for this sector to appear and grow very swiftly. The paradox became even greater when the self-created private sector grew and began to function without any respect for the basic norms of state regulation, i.e. even more freely than the private sector in the developed western market economies.

There can similarly be mentioned the numerous problems of ownership privatisation in the former sector of the large-scale economy, i.e. conglomerates, large factories, department stores, etc. The regulations gave priority to business efficiency, but clashed fiercely with social justice. There was a sudden increase in unemployment, and there were strikes by the employees in many privatised companies.

A particular example of an unforeseen eruption of a new problem is that of the grey economy. The approach of the neo-liberal school did not foresee such anomalies, because in the western developed countries with a market economy the grey economy has been much less in evidence, i.e. somewhere up to 10% of the overall economic activity, whereas in the Republic of Macedonia it has been estimated to amount to more than 30%.

These and many other phenomena and problems have posed **new questions and dilemmas**. The shaping of the new system does indeed evolve as a process. Results are being achieved. But why is the transition not taking place more swiftly? And when will the situation of the overall economy, and of the population, significantly improve? In the meantime, a need for new state regulations has arisen as a result of the growth of corruption and economic crime, the need to maintain the stability of the currency, the budgetary balance, the balance of payments and the market, the repayment of debts, new measures to protect the social security of the population, etc.

1. FURTHER MODERNISATION OF THE SOCIETY AND THE STATE

The first more significant changes towards pluralistic democracy and a market economy in the Republic of Macedonia occurred in the fall of 1990. Over the past few years, the process of social transformation has been developing under specific, complex and extremely difficult and unfavourable conditions. Unlike other countries in transition, the Republic of Macedonia's attention in the first few years has been focused on assuring the survival, sovereignty and independence of the young Macedonian state, the establishment of its fundamental political organisation and its international recognition.

In spite of all the unfavourable circumstances and serious difficulties and problems encountered, the process of transition from the previous socialist rule to the new political system of pluralistic democracy in the Republic of Macedonia has seen considerable progress.

I. The Fundamental Principles of the Political System

The political system and economic development are closely related and mutually conditioned.

On the one hand, the dynamic economic development and general prosperity of a country require, above all, that two preconditions be met: stability of the internal political system and the country's stable international position.

On the other hand, the successful development and affirmation of democratic relations require a stable system of free market relations and sustainable economic development.

1. The Basic Constitutional Orientations

The foundations of the modern political system, established and guaranteed by the Constitution of the Republic of Macedonia, include: 1) citizens' sovereignty; 2) human and civil freedoms and rights; 3) national equality and

co-existence with the national minorities; 4) rule of law; 5) political pluralism and free democratic elections; 6) a division of powers and parliamentarianism; and 7) local government.

The basic problem encountered in the sphere of freedoms and rights in the Republic of Macedonia, just as in all other countries, is their reality, i.e. the smaller or larger degree of disparity between their formal and constitutional proclamation, on the one hand, and the conditions and the possibilities for their actual exercise, on the other.

Parallel with improvements in the organisation and in the functioning of the representative forms, further development of democracy in the Republic of Macedonia should pay special attention to the forms of citizens' direct democratic participation and the expansion of their actual application. The first measures towards this end should be the legal regulation of referendums, citizens' assemblies, initiatives from the people and other forms of direct expression of the citizens' will.

The gravest problems are encountered in relation to economic, social and cultural rights, owing to the fact that the country's feeble economic power makes it difficult for the state to allot the funds necessary to support their full realisation.

2. National equality and inter-national coexistence

Over the past five decades, the Macedonian people and the nationalities living in Macedonia have achieved significant material and cultural progress, compared to the situation in the wake of the Second World War. The results accomplished can by no means be denied and in the interest of the future prospects for coexistence they must not be disparaged.

Inter-national coexistence, just like any other kind of social relations, is liable to changes, and at certain stages fluctuations in the degree of its manifestation are also possible. Coexistence requires energetic efforts to be made by all the national groups, by all the entities in a community, to prevent critical situations from occurring, and to overcome those which nonetheless occur, as quickly as possible and in a calm and civilised manner, in compliance with the standards of pluralistic democracy and the principles adopted by modern Europe and by the wider international community.

3. Deepening and strengthening of the rule of law

The rule of law is fundamental to any democratic political system. Without democracy the principle of the rule of law is nothing but a bare form

and as such it can be transformed into an instrument of compulsion, repression and dictatorship. The fundamental function of the rule of law is to restrain political power and to ensure efficient protection of human rights and freedoms. The rule of law is also a precondition and a framework for the construction of a society based on the laws of a market economy and free entrepreneurship.

In spite of the broad institutional mechanism and the constitutional principles and means of securing the rule of law, certain serious weaknesses have appeared in practice.

It is imperative that legislation be passed, as soon as possible, on the functioning of the judiciary, and that regulation be passed on other such relations and issues as can still not be regulated or are incompletely covered with appropriate laws. Care should be taken that priority be given to legislation vital to the effectuation of civil and human rights and freedoms, freedom of the market and enterpreneurship, and the organisation and functioning of the state administration. Simultaneously, energetic measures should be taken against instances and actions flagrantly undermining the rule of law and obstructing its most consistent application.

4. Stabilisation of political pluralism and of the system of free democratic elections

The party system in the forthcoming period should be directed towards a more rational stabilisation of the number of parties and, in general, of the relations within the political pluralism; these aims can be achieved through political competition, application of an appropriate electoral model and other political measures.

The 1990 and 1994 multi-party parliamentary elections and the 1990 and 1996 local elections conducted so far do not give sufficient grounds for any definite theoretical and political conclusions. Nevertheless, the analyses of these elections indicate certain weaknesses and flaws in the manner in which they were organised and conducted.

The completion of the legislative regulation of the electoral system is a task of the highest priority, for it will eliminate the controversial problems registered in prior analyses. Furthermore, the state bodies in charge should be continuously taking measures to ensure the appropriate and accurate keeping of electoral lists, and expert training of the members of the bodies conducting the elections.

5. A more rational and a more efficient application of the division of power and parliamentarianism

The Constitution of November 1991 establishes the division of power as one of the fundamental values of the new constitutional order. The position and the authority of the holders of legislative, executive and judiciary functions are established and arranged in accordance with these principles.

The principal measures in the sphere of the relations between the Assembly, the President of the Republic and the Government in the forthcoming period should be directed towards the realisation of a consistent application of the principles of division of powers and parliamentarianism and, within these frameworks, towards establishing rational relations between the legislative and the executive bodies, towards a precise separation of their authorities, towards as realistic as possible an application of the political responsibility of the Government and of the other bodies performing public office before the Assembly, and towards an efficient functioning of the whole of the state mechanism. In this respect, the position of the Assembly, of the President of the Republic and of the Government, and their competences and mutual relations, should be subjected to analyses and to adjustments bringing them closer to the solutions practised in the countries of developed parliamentarianism. The relations between the President of the Republic and the Government, in particular, should be constituted in such a manner as not to stimulate tendencies towards presidential government.

Priority in the field of the judiciary should be given to the completion of the legislation defining the function of the courts, its reorganisation and its functional capacitation. Legislative regulation of political and economic relations should also continue in accordance with the needs of a modern democratic society and market economy. State bodies and all other social factors should be particularly concerned with further strengthening of the autonomy and independence of the judiciary and its freeing from various outside influences and pressures.

6. Stabilisation of local government and realistic expansion of its functions

Over the past six years (up to 1997) the performance of local government in the Republic of Macedonia has declined and the Republic has functioned almost like a typically centralist country.

The expectations that local government would be restored shortly after the Constitution was adopted were not fulfilled. Although the new laws

on the territorial division of the Republic and on local government were to have been passed within six months after the proclamation of the Constitution, the Law on Local Government was eventually passed at the end of October 1995, and the other laws relating to this sphere were passed by mid September 1996. All these laws constitute only the normative bases for the effective implementation of the constitutional principles of local government.

Many more measures need to be undertaken before the new local government system starts functioning.

While basing its development on its own experience and traditions, the institution of local government in Macedonia will also have to follow the democratic trends of development in contemporary European local government and to strive to reach, as soon as possible, the standards of the European Charter on Local Government.

II. The Change of the Role of the State in the Economic Development and General Progress of the Country

Views differentiating exclusively between either a free market or state regulation are wrong. The true solution would be a combination of the two. Today's market economy does not exclude, but rather requires, an active role on the part of the state. This is also the case in the developed countries which have an established system and a stable development. Of course, a certain degree of state regulation and adequate macroeconomic policy are even more called-for in countries such as the Republic of Macedonia, undergoing transformation in relatively difficult circumstances.

The question is not whether the state has a role, but rather what role it plays in a market economy with prevailing private ownership.

In view of their organisation, the desired objectives underlying their establishment, and the logic of their functioning, a large number of state and parastatal institutions in countries undergoing transition do not correspond to the needs and the requirements of market economies. Their reorganisation, transformation and modernisation is therefore imperative. Some of these institutions will even have to be abolished.

The role of the state in today's circumstances should mainly be expressed in the legal regulation of the fundamental social relations, in the prescribing of the general rules of democratic and market behaviour; in the establishment of a macroeconomic policy and support of the trends of development of a market economy; and in an efficient control over the implemen-

tation of the prescribed rules of behaviour and the established programmes for development.

At the same time, and in order to be able to fulfil this role, it is necessary that the state itself be modernised and that its mechanism, the functioning of state and civil service bodies, as well as the operation of their administration, be updated.

1. The economic development of the country requires that future legislative activities be primarily directed towards a completion of the legislation on property rights, in order to secure stability of business operations and guarantee the legal status of all the subjects performing business and other operations.

The legislative regulation of economic relations should pay special attention to ensuring freedom of the market and freedom of entrepreneurship, in view of the fact that they can be restricted by law only for the purposes of the protection of the country and for the protection of nature, the environment or public health. The Republic is obliged to ensure equal legal status for all the subjects in the market, and to take measures against monopolistic positions and monopolistic behaviour in the market.

In view of the firmly declared orientation of the Republic of Macedonia towards European integration, the new legislature should take on board the positive solutions of modern European legislature and constantly endeavour to reach European normative standards.

2. Besides organisation, maintenance and reformation of the economic system, the economic functions of the state also include its active role in carrying out macroeconomic policy.

A global specification – without going into specific details – of the basic economic functions of the state in the case of the Republic of Macedonia for the coming long-term period can be summarized as follows:

♦ To further organise and improve the legal basis for an independent and efficient functioning of the market and of the totality of the economic system;

♦ To carry out a consistent macroeconomic policy and to correct deep-rooted defects in the market – as in the Western countries with market economies;

♦ When anomalies occur, **to undertake economic measures** (monetary, credit, fiscal, balance-of-payment, etc.), rather than **administrative ones** (sanctions, permissions, contingents, etc.) in the current macroeconomic policy;

♦ To create conditions for an efficient allocation of the factors of development;

♦ To suppress the grey economy by means of legislative (legal) and economic measures;

♦ To establish a system of measures aimed at mitigating social tensions and achieving lasting social security, crucial for the successful accomplishment of the social functions.

3. A state function of special import in the new political and economic system, and one which the state should preserve and continue developing, is its function of control over the application of the rules of market and business behaviour. The weaknesses in this sphere seriously affects the economic development and advancement of the country and, ultimately, the stability of the political end economic system.

Disregard for the laws and other acts regulating material and other obligations has been particularly wide-spread. These include: economic or other activities unauthorised by competent bodies and performed by unqualified persons, or persons who do not meet certain other necessary conditions; construction of residential or business premises without a prior construction permit or other documents required according to the pertinent laws; failure to pay taxes, customs duties or other prescribed payments (for health, pensions and other compulsory social insurance); failure to make payments for public utilities (electricity, central heating, telephones, water supply, radio and television, communal services, hygiene, etc.); failure to make water fee payments for water used for irrigation and failure to pay the fines imposed by courts or other authorities.

A serious form of illegal activity are the cases of crude violation of the laws regulating the transformation of companies in public ownership, whereby the real value of the enterprise is being diminished by a variety of transactions and other actions devaluating it in order to make it possible for some persons to buy it at a considerably lower price.

A particularly strong source of unlawful activities is the criminal behaviour of certain officials and officers in state administration, local government administration, and in enterprises and public administration; these acts include: forgery of certain data and granting false documents; concealment of offenders or failure to prosecute them; participation or complicity in certain unlawful financial transactions, money laundering, and other such acts. Some of these offences occur even in the courts, the basic function of which is precisely the prosecution of offences and offenders. The most frequent

motivation for unlawful acts is the desire to achieve material or other personal benefits.

The activities of the state and of the other subjects should be permanently directed towards the elimination of acts constituting unlawful or wrongful behaviour and towards efficient suppression of occurrences hindering or slowing down the process of democratisation and free performance of business operations.

III. Modernisation of the State Organisation and of the Forms of its Functioning

The basic principle towards which the process of state modernisation should be directed is the principle of responsible government. In the operation of all state bodies and public services, the principle of responsibility for unconstitutional or unlawful activity should be fundamental. The entire activity of the state bodies and civil service should be performed within the framework of their constitutional and legal authority.

The modernisation of the state should also be based on principles of rationality in the organisation and efficiency in the functioning of its bodies. These principles should find particular expression in the state and civil service bodies which are directly involved in the implementation of the laws and the freedoms, rights, interests and obligations of the citizens and of all the other entities in the community.

A more efficient and qualitative functioning of the state and civil service bodies requires that they be equipped with appropriate skilled staff. Furthermore, their further qualification and the necessary replacement of old with newer, better qualified, personnel, should be a matter of constant concern. State bodies, public services and public institutions should have at their disposal modern and high quality technical equipment.

The improvement and modernisation of the functioning of the courts is another of the state's high priority tasks. A democratic system demands a fast-functioning judiciary to ensure, in particular, protection of human rights and freedoms and realisation of economic interests. Current court procedures are very slow and the courts are overburdened with cases the solution of which is being unduly prolonged. A market economy requires timely and efficient settlement of economic and other legal and property disputes.

The current problem of over-sized state and government administrations, encountered in all modern states, should be handled in the Republic of

Macedonia with great care and attention. Justified general demands for a reduction in the administration must not affect the objective needs for the establishment of certain new bodies, institutions and agencies indispensable to the young Macedonian state, and their functional capacitation. The number of state bodies, institutions and civil services, and the number of their employees, should be determined in accordance with objective criteria and the needs of the Republic of Macedonia.

And finally, it should be emphasised that the state does not and cannot play an exclusive role in the processes of the transformation of society, or in the process of democratisation and economic development based on the laws of the market. Their exclusive attainment through the state and the activities of its bodies could result in negative effects for both the content and the pace of their realisation.

2. COMPLETION OF THE PRIVATIZATION AND RESTRUCTURING OF ENTERPRISES

I. Privatization Strategy and Objectives

The process of ownership restructuring in the Republic of Macedonia began in 1989, with the Law on Social Capital of the former SFR Yugoslavia, but it got more intensive with the pass of the Law for Transformation of Enterprises with Social Capital in 1993.

The basic philosophy of the privatization in Republic of Macedonia is that it is an instrument, not an end per se. Apart from the efficiency gain, which was considered as primary goal of the privatization process, the other privatization objectives are the following: to increase the credibility and the support of the reforms, to attract foreign capital, to start the economy moving at a more stable pace, to develop the capital market, to de-freeze the so called frozen saving deposits, to productively engage the free money saved out of the banking system etc.

The Law for transformation of enterprises with social capital is based on the case-by-case approach of transformation, that is, on commercial privatization. The principle of mass privatization was not applied as the dominant principle basically for two reasons: First, the efficiency gain of the economy was defined as a basic privatization goal. At the same time, it was considered that the Macedonian economy, which was managed in the frame of the self-management socio-economic system was already different from the economies of the orthodox centrally-planned managed systems and that, if real changes were to be achieved, they could be realized only by higher concentration of the ownership and only by payment for what would be received in the privatization. Therefore, for someone to feel responsibility and to have motivation for taking care of the ownership, he must pay for the shares that he will acquired. Second, the privatization based on the Social Capital Law of former Yugoslavia was largely applied in Macedonia, which means that a significant part of the equity has already been privatized by that Law, so that it was considered that there would be not enough free capital which could be offered to the potential strategic investor.

However, as a sort of substitute, and at the same time to provide a fair approach in the process, the Law allows the following: First, a significant scheme of discounts was offered to the employees. They have an initial discount of 30% plus 1% per each year length of service in the enterprise. For specific objects, built from the common consumption funds, the initial discount is 50% plus 1% per each year length of service in the enterprise. The employees can buy shares with discount to a sum not higher than 25.000 DEM and not more than 30% of the estimated enterprise value. Second, when the enterprise starts with the privatization procedure, it automatically transfers 15% of the social capital (in shares or stocks) to the Pension Fund. Thus, the Pension Fund, which the whole population of present, former and future employees is interested in, will get a big portfolio of shares, which should significantly improve the financial situation of the Pension Fund.

Several privatization methods are available to the enterprises according to the Law for transformation of enterprises with social capital. The methods are different to a certain degree for small, medium and large enterprises. The small enterprises can be privatized according to the following methods: employee buy-out ad sale of an ideal part of the enterprise. The medium and large enterprises can be privatized according to the following methods: sale of an ideal part of the enterprise, buy-out of the enterprise, management buy-out, issue of shares for raising additional investment, debt/equity swap. Beside these methods, there are three possibilities for transformation which can be applied to all enterprises, independent of their size: leasing of the enterprise with an option of purchase, transformation through sale of all assets of the enterprise and transformation of enterprises under the bankruptcy procedure.

II. The Results in Privatization

Between the beginning of the privatization and the end of 1996, 914 enterprises were privatized in the Republic of Macedonia. These enterprises employ 145.000 workers, and their total appraised value is more than 2,3 billion DEM (Table 1).

It should be emphasized that privatization in the Republic of Macedonia is not happening only through the transformation of the existing enterprises with social capital. The entrance of new, private-owned enterprises on the Macedonian market also means privatization of Macedonian economy. It is a parallel process, which is significant for the development and the configuration of the market structure. From 1990, when the foundation of

private-owned enterprises was enabled by Law, to the end of 1996, over 90.000 enterprises were formed in the Republic of Macedonia, and more than 86.000 of them are private-owned enterprises.

Table 1

Results in the privatization until 31.12.1996

Activity	Number of enterprises	Number of employees	Value (DEM)	Social Capital /DEM
Industry	333	89.144	1.536.885.305	462.094.155
Construction	100	26.049	144.889.308	73.700.728
Trade	293	16.376	405.605.035	117.881.215
Transport	34	3.889	42.744.266	19.387.942
Catering and Tourism	35	2.350	85.366.868	23.413.027
Handicraft	42	1.835	31.059758	10.972.316
Financial services	77	4.896	111.018.138	35.903.425
TOTAL	**914**	**144.539**	**2.357.568.677**	**743.352.807**

Source: Agency of the Republic of Macedonia for transformation of enterprises with social capital.

There is still no documentation in the Statistics Bureau or some more fundamental analysis on the significance of the private sector in the composition of GDP, national income and other parameters of the national economy, so this significance can be evaluated only by other methods. This includes the statistical data from the annual finance statements of the enterprises for 1996, processed in the Payment Operational Service in Skopje. At the same time, the results of private-owned enterprises can be analyzed, as well as the results of all privatized enterprises until the end of 1996.

The analysis shows that over 70% of the total revenues of the Macedonian economy are realized in the private sector. Approximately 57% of the total number of employees work in private enterprises and they generate profit close to 78% of the total profits in the Macedonian economy. This analysis shows that the private sector has become a significant factor in the economic life of the country, which means that Republic of Macedonia is already in the post-privatization phase.

The estimation of the Agency of the Republic of Macedonia responsible for transformation of enterprises with social capital is that the privatiza-

tion process of the enterprises encompassed by the relevant Law is approaching to its completion. This is confirmed by the fact that the largest number of enterprises subject to this Law are already privatized. Also, a great number of enterprises (approximately 260) are in the transformation process, and have already prepared the required documentation for transformation which has been submitted it to the Agency. It should be expected that in the following few months they will finish with the first phase of the ownership restructuring process.

A qualitative assessment of privatization indicates that some of the fundamental privatization goals are not realized the way they were expected. We primarily think here of the idea for getting dominant, strategic owner of the enterprises, who will bring not only a clear incentive for successful operation of the business, but who also will bring new capital, new know-how and new management skills. The existing management and the employees appeared to be the most frequent buyer of the privatized enterprises and this has led to a fragmented ownership structure of the enterprises' equity. The concept of wide ownership as a concept does not have to be a negative issue. On the contrary, it is even needed and desired, but it should be isolated on one part of the capital only, and the other part, possibly the majority, to be reserved for a dominant, strategic owner. Actually, this was the conception of the privatization law and it predicted such result. The main reason for the very small arrival of strategic owners in the privatized enterprises was the insufficient inflow of foreign capital in the country, as well as the low power of the domestic private sector which could appear as purchaser of the social enterprises. In most cases, the only bid to buy-out the enterprise to be privatized came in fact from its management and employees. Evaluating the process backwards, it is still fortunate that there was a buyer at all, but it is now obvious that a significant step forward for stable growth and development can not be expected by privatization alone. It is a situation that should be acknowledged and which should result in appropriate and intensive post-privatization activities.

III. Restructuring of Enterprises in Republic of Macedonia

An extensive debate has surrounded the question of restructuring of some enterprises in Republic of Macedonia. The dilemma was about the order of restructuring, should it be done before or after the privatization. At the beginning it seemed more logical not to realize any restructuring of the enterprises before privatization, because of the following reasons: first, restruc-

turing is expensive and second, restructuring can be done with best possible results if it is executed by the new private owner, because the new owner knows best how to restructure the enterprise.

However, it soon became clear that some of the enterprises, especially the large ones, could not be privatized. This relates to the big loss-making enterprises which are not attractive for potential investors and which represent a great burden for the economy, because the way that they work now, they do not create added value, but on the contrary, their output is bigger than their input and they are irrationally spending the rare resources of the country. It became obvious that a specialkind of restructuring is necessary. The restructuring which should be realized in Macedonia was defined as "defensive", pre-privatization restructuring. The basic idea was that greater effort should be put on pre-privatization phase with an aim to ensure smoother and simpler post-privatization adjustment later. In the creation of the program and in the many phases of its development so far, the Government was supported by a significant input from the World Bank. The Government received abundant technical assistance in the creation and implementation of the project, but also some specific line items within the agreed financial and enterprises restructuring and social reform credits.

The main features of the special restructuring program, later on spelled in the Law for restructuring of some of the enterprises making losses, were to establish a transparent set of rules with a time bound program, providing for: hard budget constraints, isolation of SRP enterprises from the banking system, financial and other support for displaced workers, liquidation of non-viable enterprises or non-viable components of enterprises, transfer of social assets to local government, carve-out and privatization of non-core commercial assets, privatization of viable enterprises or viable components of enterprises.

The twenty-five enterprises, subject of this program, generated 13% of GDP of the country, and they made 80% of the total losses in the economy of the Republic of Macedonia. They employed 55,000 employees.

The special restructuring program has started to demonstrate certain effects. At the beginning of the application of the Law, a moratorium was put on all old liabilities of these enterprises towards third parties. The enterprises were completely isolated from the banking system. With the exception of a very small amount of self-liquidating credits they worked with their own cash flows, so that they stopped spending the limited resources of the country. The debts towards banks, state and public enterprises were converted into special restructuring shares, which at the beginning were non-

voting shares, and later with the change of the Law, they were converted into voting shares. Actually through the conversion of these debts into shares these enterprises were partially capitalized. Over 15,500 workers, defined as technological surplus, were laid off, and the severance payments were maid from the Budget. All enterprises prepared privatization programs. The enterprises were divided into smaller units. A lot of spin-offs from the core businesses were designed, so that instead of 25 enterprises there are now some 130 enterprises working on Macedonian market. The transactions of all these enterprises are in the process and over 70 privatizations (until the end of May 1997) were already finished. Ten enterprises have been liquidated so far.

It can also be concluded that the psychological impact of the program was big. The enterprises understood what a hard budget constraint really meant and they soon found out that this restructuring was completely different from the ones that they were used to in the past and from what they perhaps had expected at the beginning. The program helped both them and the society as a whole to better understand the functioning of the market.

IV. What is next in the Privatization programme?

According to the Law for transformation of enterprises with social capital, a great number of enterprises were excluded from the privatization. Mainly agricultural, forestry, water supply enterprises, industries of special social interest, enterprises that have monopoly status by Law, as well as public enterprises. However the transformation of some enterprises that were primarily excluded from privatization at the beginning has been made possible. Such is the situation with the publishing enterprises, whose status of special social interest industries was taken away by Law, so that they could enter the transformation process freely and the greatest part of them have already been privatized in the meantime. Further on, the monopoly in the elaboration of urban plans was by Law taken away from the urban planning institutions, so that they also could be privatized. The greatest part of these institutions is already privatized as well. A special Law was passed for transformation of agricultural enterprises and cooperatives, which enabled the agriculture cooperatives to participate in the ownership restructuring process. Recently, the lottery Law was passed, and the procedure of passing the law for insurance companies is running at the moment, which will also enable the transformation of these enterprises.

The ownership transformation of financial institutions will be realized within a wider financial system reform of the country. Basically, the privatization of financial institutions has been executed indirectly, by privatization of their founders, and a lot of banks are already transformed that way. If some originally generated social capital appears somewhere, it will have to be privatized separately, probably by certain legal provisions.

The possibility of privatization of the parts which do not represent the core business of a public enterprise, as well as the privatization of separate businesses through concessions has gradually been created with the Law on Public Enterprises, and with the separate laws for the special industries and resources, for example, the law on mining, law on forestry, law on waters, law on telecommunications etc. This legal regulation has not been entirely completed yet and it is necessary to accomplish it as soon as possible. This will create a legal basis for ownership restructuring in a great number of industries. A decision for each individual public enterprise on the issue of whether and when should it start the transformation will be separately decided upon. The decision for the spin-off of non-core businesses associated with public enterprises can be initiated by the Government, and the decision for future privatization of some public enterprise should be carried out with a law and with the proclamation of the Parliament of the Republic of Macedonia.

The agricultural enterprises and cooperatives can be privatized already by the Law for Transformation of the Agricultural Enterprises and Cooperatives with Social Capital. That law stipulates a similar procedure for transformation of these enterprises, with the exclusion that article 7 of the Law stipulates compulsory organizational restructuring of the complex enterprises, the structure of which consists of several different businesses. The other difference from the basic law for transformation is that the Ministry of Agriculture gives an agreement on the program for transformation. It is foreseen that the transformation of these enterprises will be finished relatively soon. This is among the last global processes of structural reforms, by which the mass structural reforms in the society will approach their end.

The transformation process is already known to the public and to the enterprises, including the agricultural enterprises and cooperatives. Consequently, it is to be expected that this process will be realized faster than the privatization of enterprises which were subject to transformation according to the first Law for transformation. This is already happening, because a lot of agricultural enterprises and cooperatives have submitted their programs. However, it has become clear that a lot of specific conceptual issues still ex-

ist in agriculture and they have partially managed to slow down the start of privatization of agricultural enterprises.

In the process of privatization of the socially owned enterprises it became obvious that state capital has appeared in the balance sheet of some enterprises, which was clearly distinctive from the social capital and it was apparent that it had to have a different treatment in the transformation. The law for privatization of the state capital was enacted for the sale of this capital. The essential characteristics of the Law are that case-by-case privatization will be likewise applied, and that the Government will directly discuss each separate case of privatization. Further, there are no favours for the employees on the privatization of state capital, and discounts are possible only on the payment for the shares. The agents for sale of state capital are the Agency of the Republic of Macedonia for transformation of enterprises with social capital and the Bank Rehabilitation Agency of the Republic of Macedonia. The objectives of the privatization of state capital in a specific enterprise, in contrast to the laws for transformation of enterprises with social capital, is not efficiency gains. This is especially true with the cases where the state capital has a relatively small share in the equity structure of the enterprise. The reasons for privatization of state capital can be different, again depending on the enterprise and can differ from the need for more efficient operation of the enterprise, to the need to generate more cash for the Budget.

The following activities, which are directly connected with privatization, are forthcoming in the next phase of privatization in the Republic of Macedonia:

♦ Fulfillment of the last gaps in the privatization processes. The enactment of the restitution law is the first such example. It is expected that this law will be enacted by the end of 1997 and it will define the legal framework for compensation to previous owners and their successors. The restitution should be realized in two parallel directions. First, by immediate return of the real estate which still exists and is not legally disputable and second, with issue of state fixed interest bonds which can be used as financial instruments for different payments to the state, as payments for the shares in the enterprises to be transformed, as foundation capital for establishment of investment funds, as guarantee capital in the long–term credit mortgages, etc.

♦ Passing the Law on land which will regulate the land status and the possibilities for its use. The privatization of urban and state agricultural land is forbidden by the Law for transformation of enterprises with social capital and it became property of the Republic of Macedonia.

♦ Passing new law for liquidation, bankruptcy and compulsory settlement. This is one of the fundamental laws which have to be well established in the legal system of the country, because it represents the essential standpoint which supports the principle of hard budget constraint and which enables the exemption of the unsuccessful enterprises from the market. The need for the law to be consistently and principally implemented is even more significant to emphasize. Our estimation is that the existing law possesses the fundamental presumptions to be functional, but the main problems at present are that its implementation is completely wrong, in some aspects even opposite to this existing law.

♦ Completing the privatization of the enterprises that are in the process of privatization, or have not yet started that process. First of all, it refers to the enterprises subject to the Law for transformation, as well as the Law for transformation of agricultural enterprises and cooperatives, but which have still not finished the process.

♦ Control and monitoring of the past concluded agreements for privatization, which assume collecting proceeds according to the negotiated dynamics; control of the realization of other agreement elements; in some cases breaking the contracts and taking over the rest of the shares, if they represent a minority steak, or taking over the enterprise, if the majority of the shares have not been purchased, and subsequent privatization of the enterprise from the beginning.

♦ Design of a concept for more efficient sale of minority (residual) shares of the Agency, but also of the state capital in transformed enterprises and implementation of that concept.

♦ Progressive expansion of privatization in the public services sectors, which were originally excluded from the transformation, if there is a need or an opportunity for that. Thus, the sale of telecommunications will go first, but later it may become evident that there is a need for privatization of other public enterprises or their parts.

♦ The expansion of privatization (in the framework of deeper reforms) in social activities, in accordance with the recognition of specific needs and opportunities and in accordance with world experiences in separate industries. The reforms in these activities should start very soon, and privatization processes in these industries will probably happen mostly in the next century.

♦ Introduction in the non-privatized sector of the private, market based management systems. These activities are the following: restructuring

before privatization, management performance contracts, concessions, ***BOT, BOO*** and similar arrangements, etc. Most of these forms of more efficient use of the state assets basically mean privatization of the businesses, and not also privatization of the assets, but if they help achieving the main objective for more efficient use of available resources, they are more than justified.

V. Post-privatization Aspects

The period of transition which the Macedonian economy and society is going through, is similarly to all other countries of Central and East Europe. It signifies that companies will be forced to adjust their operations to market rules and mechanisms, in order to survive and succeed on the world market. It also signifies that the state should provide less direct assistance and intervention for companies. It should develop more forms of mediated support, first of all in the creation of an environment for successful development and operation of the economy, in the elimination of all obstacles, in the increase of the competitive ability of the economy for efficient and sustainable development.

In the transition period so far, the State has created the basic conditions for the reforms: institutional, macro-economic, micro-economic and structural. These activities are most significant, since they mean serious changes in the country's economy, cuts and elimination of the inefficient parts so that the healthy segments can live and prosper. It was inevitable that these reforms would be followed by a contraction of economic output, after the emergence of all the problems and difficulties which were covered up during the period of less or more direct state intervention in the economy.

An issue that the Macedonian state has not resolved yet, is the adjustment of the administration to work in new, market environment to support the economy in its post-privatization efforts, which would be through a new support system, based on many, well-considered, and coordinated activities. In other words, the state has so far worked on the environment, and with the structural reforms it simply transferred the responsibility for the survival and development of companies to themselves. It is the initial and chronologically proper way. However, further activities should certainly follow, which should provide a development impulse and greater efficiency of the economy. The Macedonian Government in the forthcoming period should establish the support system to improve the competitive advantage of the economy.

Facilitation of Trading with Ownership Rights

The most important element of the legal system in the country is the creation of a legal basis for trading with ownership rights. The ownership of enterprises itself cannot make any big difference in their behavior, if there is no possibility for it to trade. From the privatization aspect, it is important that the new owners of the companies, may sell freely their shares or stakes to other persons, or that they may continue buying new shares in order to obtain bigger concentration of the ownership structure of the company.

There is a stock-exchange in the Republic of Macedonia. As far as the potential offer of shares is concerned, the basic conditions have been already created, through the corporatization of companies. Their equity was divided into shares that were sold to large number of investors. According to the estimation of the Agency of Republic of Macedonia for Transformation of Enterprises with Social Capital, there are at least 250,000 shareholders in the country. It is reasonable to expect that sooner or later these shareholders will start trading their shares. For now, the Stock Exchange operates with very few transactions and with a small number of shares and other securities, which should not be surprising as an initial activity. The market still cannot bring the expected effects yet. In the following period, the obstacles that prevent the Stock Exchange from functioning must be eliminated, which is important not only for the Stock Exchange, but also generally, for the revival of the capital market in the Republic of Macedonia. The possible influence of the government in this sphere is quite obvious: first of all, it has a fundamental role to provide the education of the population to better understand the changes, and especially the essence of the capital market and its basic institution – the Stock Exchange; second, in the restructuring and rehabilitation of the existing banking system in the country, its revival and regaining the citizens' confidence in the financial system of the country; third, in the thorough development of the institutional support for the capital market – with new institutions and laws regulating the capital market, by which the information rules for the present and future shareholders will be set up, and by which the behaviour of the insiders will be regulated; four, in the protection of minority shareholders' rights; five, in the elimination of some obstacles to the open trading of shares that have already been recognized in some of the present laws; six, in the development of the system of investment and savings promotion in order to increase the savings rate as well as domestic and foreign investment.

There is still no legal basis for the formation of investment funds and other financial intermediaries on the financial market in the Republic of Macedonia. This is a very substantial anomaly of the Macedonian legal system that should be eliminated very soon. Since the model of mass privatization has not been implemented in Macedonia, the formation of investment funds did not happen. Their significance, however, is considerable. In addition to the privatization itself, the investment funds play an important role in the governance of the companies, as well as in the post-privatization restructuring and financing. Also, the investment funds can play a great role even in the concentration of the ownership and in the volatility of the financial market in the country. Having in mind the conditions of the present situation on the capital market in Macedonia, they might be an important factor in the demand for shares. They could appear as buyers for some parts of the already privatized shares. Accomplishing that function, and especially within the existent situation of dispersed ownership in the companies, they could very soon appear as an important factor for improvement of corporate governance, especially in the period until greater ownership gathering has been provided.

What is needed, is to have a law enacted in Macedonia soon, in order to enable the establishment and operation of investment funds, mutual funds, and other financial intermediaries. It should be stressed that expressions of interest to form such funds have already been made. For now, they are not in a position to make the first step – the registration of the fund, since they do not have a legal basis for that.

However, several such institutions in Macedonia own or hold shares, although that still do not function as financial intermediate institutions. The Pension and Disabled Insurance Fund is such an example. The Law on Transformation of Enterprises with Social Capital anticipates that the shares in value of 15% of the social capital are transferred to the Pension and Disabled Insurance Fund as priority shares. By this only, the Fund was turned into the largest shareholder in the state. If a reorganization of the Fund happens, where it could function as a real financial intermediary, it would be the most important participant on the capital market for some time. Among all, this Fund's shares would be very attractive for the large foreign funds specialized to invest in the countries in transition, and in emerging markets.

There are two other share portfolios that could be organized in funds or become subject to some similar activity. These are the priority shares of the Agency of Republic of Macedonia for Transformation of Enterprises with Social Capital, that have not been sold during the companies' transformation, and the Agency owns them as residual shares. Another institution that has a

larger number of shares is the Bank Rehabilitation Agency. The shares owned by this Agency are common, voting shares, and they actually are state capital shares. Finally, there is a considerable amount of state owned shares belonging to the Ministry of Finance and the privatization for which should be initiated and administered by one of the two Government agencies. These shares are also voting shares. The efficient management of all these funds, their eventual combination, and maybe the merger of some of them in a single joint fund, as well as their role as participants on the capital market, are necessary to revive the capital market, help improving corporate governance in the short-run and, to release the state from the direct ownership participation in the companies.

Probably the most important element of the legal environment in a market economy is the possibility that the parties can freely enter into agreements with other persons, and, by that, to be secure that the agreement stipulations have obligatory power. It is considered that the most important institution in the market economy is the contract and its enforcement. The legal aspects of contracts in Macedonia are basically regulated by the Law on Obligations, which is considered to be a technically good law. In this sense, there is still much to be done in the Republic of Macedonia, for better legal regulation of the rights and obligations of the agreements, as well as for the creation of mechanisms and the climate to accomplish the agreed obligations, first of all on the side of the judicial and the other competent institutions.

Rehabilitation and development of the financial and capital markets

The financial market in Republic of Macedonia has experienced a big crisis and it still feels the consequences of it. This arises from the almost complete bankruptcy of the banking system of SFR Yugoslavia in 1990, when it was announced that it could not longer service the foreign currency deposits of the citizens of SFRY, which happened to have been lost because of the bad banking investment policy. Foreign currency depositors have suffered badly and the consequences were a complete loss of the confidence in the banking system of the country.

Although the Republic of Macedonia, in common with the other states successors of SFRY, has undertaken some activities to pay back these frozen saving deposits, the credibility of the bank system has not recovered yet. Likewise, through the collapse of some private savings banks in 1996

and 1997, significant amount of citizens' savings were lost, which additionally endangered the citizens' confidence in their capacity as savings institutions.

That situation is very dangerous and it can seriously damage the development of the country. Both, the theory and the practice have shown that the development of the economy is proportionate to the level of savings in the country. That is why, the establishment of a sound financial system is a very important task that should be realized in order to provide conditions for a successful development strategy.

The restructuring and rehabilitation of Stopanska Banka is in due course, via the take-over of the bad debts out of its balance sheets. Also, one of the existing larger banks has entered the bankruptcy procedure, and several smaller banks and savings banks have been liquidated. The largest bank is likely to be capitalized with support from a foreign strategic investor. This may make an important difference in the financial sector, because the entry of a foreign bank as a significant shareholder means an increase of the bank's credit potential. It is also a step forward toward regaining confidence in the banking system.

New banking laws in the country have already been enacted, based upon modern banking principles and standards. What is most important, is to further regulate the mortgage as an instrument for loan protection. However, this sector needs thorough reform, without which the post-privatization efforts and market development will be difficult.

Investment and trade promotion

In the transition implementation so far, there has been minimal inflow of foreign capital. Basically, this is due to the high political risk associated with the investment in Republic of Macedonia. Macedonia, as a country that arose from former Yugoslavia, was associated with a country in which either war was going on, or a country that was close to a region in which war was going on. An additional problem that stresses the political risk was the emphasized tension in the relations with the neighbors, the imposed embargo, and the danger that these negative relations could escalate. This can be complemented with the fact that Macedonia is a country that is quite unknown to foreign investors. In conditions where Central and East Europe was opening up new sites for investment, and when all other countries, notably, the newly industrialized ones, have continued their aggressive policy of

attracting foreign capital, then international capital has much more attractive, more secure, and less risky areas to locate its investment activities.

The first most obvious effect from the entry of foreign capital entry would be purely financial and economic. Foreign capital enhances the moderate abilities of Macedonian economy for saving and investment, increases the competitive ability of the economic entities in the country, helps alleviate some of the social tensions, and supports sustainable growth and development. Another important effect is that foreign capital may signify the most efficient form of technology transfer, not only in the sphere of scientific, technical and technological achievements, but also in the sphere of the management, organization, and human resources' development. The foreign capital entry in the form of a takeover of all or part of existing companies, joint ventures, or equity increase of the existing, privatized companies, will, first of all, change the inefficient ownership capital structure, and in the second phase, it will mean providing of a dominant owner for the companies. In addition to this, the effect of the foreign investors on the economic milieu should also not be underestimated. The presence of economic subjects with foreign ownership on the Macedonian market will increase the competitiveness, the pressure for destroying the various kinds of monopolies, or other barriers to the market, that have not been completely broken by the implementation of the reforms; it will increase the standards for better performance in operations, and introduce some of the world best practices to the Macedonian market.

It is clear that as a strategic determinant of development, Macedonia must build up a system of attracting foreign capital, and lead an offensive policy to build up the competitive advantages of its own investment climate.

Development of SMEs and Entrepreneurship

The development of an efficient supportive system for entrepreneurship is a very complex task. The term, itself, means freedom of the market, of the private initiative, minimum state intervention and direct state assistance, and the enterprises, the individuals, and all other participants on the market to compete freely on the market. The measures that the Government undertakes to support entrepreneurship should be mainly directed towards creating an entrepreneurship environment, competitive surrounding, that stimulates private initiatives and offers equal chances for all to realize some entrepreneurial ideas. The state should be firstly neutral in its policy, it should not be protective towards big businesses, by which it would subdue the entrepre-

neurship ideas being, by the rule, much often born in the small and medium business. On the other hand, state support should exist in order to soften the social repercussions from the eventual very high level of failures, breakdowns of new and small businesses.

A central institution has been formed within the Ministry of Development, that will coordinate the development activities of SMEs and entrepreneurship. It will have the assignment to coordinate the activities in the state that are important for the development and the support of this sector. It will have the assignment to research all the possible methods of support ways, to make necessary analyses, to provide expert assistance for the SMEs and the entrepreneurs, as well as to support the private institutions and companies that in a way help the SMEs, and the entrepreneurs. It will also recommend to the Government and ministries the kinds of measures they should undertake to stimulate the development of the SMEs and the entrepreneurship, it will coordinate the activities of local institutions and agencies, and will administer the foreign institutions' assistance to promote this activity. In future, formation of local institutions should be considered in the larger centers of the state, to provide assistance and support for the SMEs and the entrepreneurship at regional level. They would be coordinated and helped by the central supportive institution. In this sense, it is good to use the existing institutions' network of the Economic Chamber of Macedonia, through which large number of necessary activities can be implemented.

From the aspect of the needed legal regulation, it is necessary to establish and develop a complete anti-monopoly legislation, which will maintain the competitive market structure and the development of the entrepreneurship. The anti-monopoly legislation should perform the well-known, basic functions, typical for that same kind of regulation in the developed countries. It is the prevention of agreements on prices, quotas, division of the market, control over mergers and acquisitions, control over expenses, profits, or the monopoly prices, prohibition of various sorts of unfair competition, tied trading, etc. There is still not such a law in the Republic of Macedonia, and in its absence, the activity of the market may be derogated to a large extent. Such a law will help strengthening the competitive pressure in the country, which on its side is the most natural environment for the development of the entrepreneurship.

One of the basic assumptions for the development of the SMEs and the entrepreneurship is that an efficient financial support should exist in the country for this purpose. The formation of a specialized bank, or the opening of credit lines for small businesses that would approve credits under rela-

tively softer conditions, should be considered. They would be loans with a longer repayment period, with a grace period, relatively low interest rates, especially in the beginning of the project. The loans would be approved based on strict banking criteria for assessment of the project's profitability, which would provide good selection of the projects, and those businesses that have the greatest chances of success would be invested in. It is also needed to found a venture capital fund that would take part in the projects with equity, and not with loans. As mentioned above, there have already been expressions of interest in the formation of such venture capital funds even from abroad. It is needed to provide legal assistance for the foundation of such funds, and let the entrepreneurship ideas develop in the field of financial businesses, that could be also profitable on their own.

In future, we will need much more consideration and action about the formation of technological parks, incubators, and industrial zones in the Republic of Macedonia. There are large un-utilized business premises, being often enterprises' property, which could be put to productive usage. There is well-trained labour force in the country that can help in the various phases of the incubators' development, and even more, in the technological and scientific parks. It is also possible to obtain foreign technical assistance for these purposes. Within the Social Reforms Project, carried out by the Agency for Transformation of Enterprises with Social Capital, there is a sub-project for development of several incubators in the country, and the first ones have been already formed.

Management training

The development of the free market economy assumes that the participants will respond immediately to market impulses and signals, and that they will immediately undertake activities to obtain as much benefit from the newest occurrences on the market as they can. For that purpose, it is necessary that the managers obtain specific knowledge, specific skills, not only in the technical conduct of the business, but also in the business aspects: financial management, marketing management, human resource management, and of course, the production processes management. The same is needed for small entrepreneurs, managers or owners, who need specific knowledge in each separate phase in the business development: in the foundation phase, the growth phase, the maturity and internationalization phase.

For now, there is no organized way of managerial training in the Republic of Macedonia. What is being done is not coordinated and temporal.

Post graduate education and training is almost nonexistent (apart form the well established university degrees), and the need for it becomes even more obvious. Educational institutions should lead this process, but it is also expected that private initiative will find such training quite a profitable business itself. The state should promote the design and support training programmes especially for management and entrepreneurship development. This activity is still underdeveloped, and it should be expected that it is going to gain its real importance.

3. IMPROVEMENT OF THE MONETARY AND BANKING SECTOR

I. Monetary System and Central Banking

The main goal of monetary policy in the Republic of Macedonia is the maintenance of a stable domestic currency – Denar – on a permanent basis, i.e. price stability. However, the main goal of the monetary authorities is not to determine monetary targets for their own end, but in support of creating sustainable economic growth of the country.

The price stability on a long term basis enables:

- increase of the domestic savings;
- efficient resource allocation;
- decrease in interest rates, in line with long term investment activity.

The Republic of Macedonia is a currency zone of two million people with a relatively low income level of US 1,860 dollars per capita in current exchange rate, or US 1,581 dollars in exchange rate adjusted for domestic price movements (PARE method), at the end of 1996. The small currency zone means that the Macedonian currency is exposed to strong competition from "healthy" convertible foreign currencies which can be expressed in terms of the level of currency substitution. Thus, in 1996, the currency substitution coefficient in the Republic of Macedonia (measured as the relationship between the foreign deposits within banks and the narrowest money supply definition M1) amounted to 0.30, which is comparable to the level of average currency substitution coefficients in the transition countries. The high degree of currency substitution is also confirmed through the second, indirect indicator – the coefficient of monetization of the economy, which at the end of 1996 was reduced to 0.08 (M1/GDP) and was approximately 3.0 times lower than the appropriate coefficient in the highly developed countries and transition countries with stable and low inflation and efficient monetary policy. This suggests that money demand in the Republic of Macedonia is weak and unstable.

The low monetization coefficient, besides the currency substitution is also a consequence of the specific payment system, which allows the termination of chain payments, although the money is not definitely available for the issuer of the payment note. That results in higher money velocity than the usual one in the highly industrial countries. With the on going payment system reform, it is expected that money velocity will decrease, money demand as well as coefficient of the economy monetization will increase. In addition, the monetization of the economy will also increase as result of money demand increase as inflation declines on a permanent basis and reduces inflationary expectations. With the finalization of Denar current account convertibility for transactions in the balance of payments to 2002, the level of currency substitution will decline, and on that basis the coefficient of monetization will increase. Definitely, the currency substitution and competition by foreign exchange pressure on the Denar is expected to be overcome after the introduction of Denar convertibility for capital transactions in the balance of payment, which could be realized in the period 2005–2010.

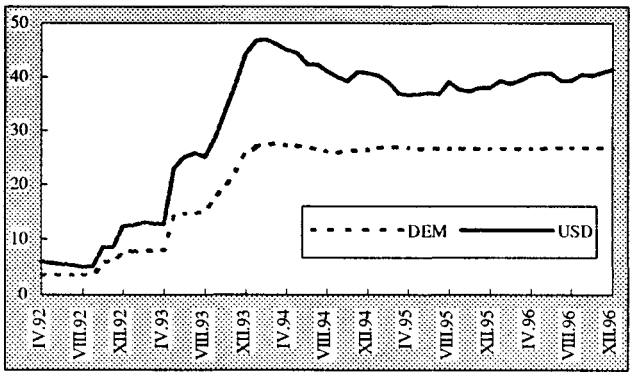
In the period since gaining monetary independence, in the Republic of Macedonia, two periods can be distinguished, from the point of view of applied strategies for monetary policy. Over the period April 1992 – October 1995, the strategy of monetary targeting was implemented, while in the last quarter of 1995 and during 1996, the strategy of Denar exchange rate targeting was implemented. Choosing the Denar exchange rate as a main intermediary target of the monetary policy meant a change in the relation between the money supply and the exchange rate. Namely, as opposed to the strategy of monetary growth targeting, where direct control of money supply was used to maintain price stability and the exchange rate was an indicator of optimality of monetary policy, in the strategy of exchange rate targeting, money supply changes become an instrument through which directly exchange rate stability is achieved, and through that, indirectly, the price stability.

In the short run, the utilization of the foreign exchange as a main nominal anchor was an effective policy for curbing inflation, repressing inflationary expectations and imposing macroeconomic policy "discipline". Thus, the inflation rate, as measured by the retail price increase, at the end of 1996 was reduced to 0.2%, representing a level of price stability comparable with the most developed economies, and among the most successful among transition countries. However, due to the cumulative inflation increase in the period 1994–1995 of 69.8%, the achieved high stability of the Denar nominal exchange rate disguised significant inflationary disparities between the Republic of Macedonia and Germany (a country in terms of which the exchange

rate is targeted). Such inflationary disparities has resulted in an appreciation of the Denar's real effective exchange rate and in a loss of price competitiveness with foreign markets.

Graph 1

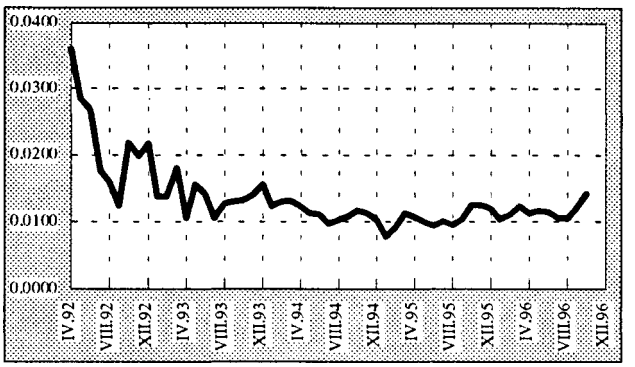
Nominal Denar Exchange Rate in Terms of DEM and USD



Graph 2

Real Effective Denar Exchange Rate Movements (DEM/unit labor costs)

(April 1992=100)

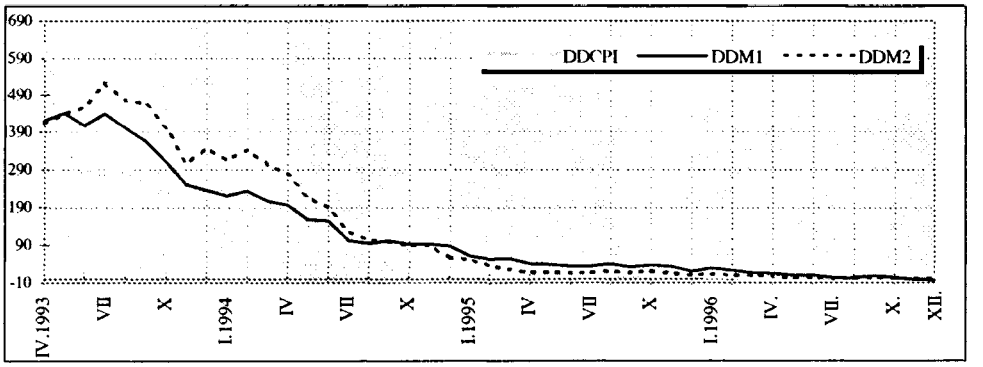


The strategy of exchange rate targeting which was implemented when fundamental factors caused significant disequilibrium in the balance of payments, led to high monetary contraction which resulted in negative annual growth rates of the monetary aggregates at the end of 1996. Thus, in 1996 the annual growth rates of monetary aggregates M1 and M2 amounted to – 2.8% and -0.3%, respectively.

Graph 3

Annual Growth Rates of M1 (DDM1), M2 (DDM2) and Inflation (DDCPI) in the period April 1993 – December 1996

(Indices, IV.1992 = 100)



In the long run, the utilization of the exchange rate as the main monetary target is unsustainable because the Republic of Macedonia is not an optimal currency zone in terms of the European Union member countries. To avoid the negative impact of a loss of price competitiveness abroad, and to give up the exchange rate as an instrument for balance of payments equilibrium, it is necessary to attain high convergence of economic performance between the Republic of Macedonia and European Union member countries, including for inflation, labor productivity and unit labor costs growth. Besides that, it is essential to achieve high mobility of production factors which should neutralize the shocks and enable long run equilibrium of the balance of payments. Particularly, there should be a high degree of financial market integration, country openness, commodity diversification, integration of the commodity and service markets with fiscal harmonization in order to adjust the entire economic performance of the Republic of Macedonia to the economic performance of the European Union member countries.

Not fulfilling these prerequisites leads to evasion of the exchange rate targeting and normalizing its utilization as an instrument for maintenance of price competitiveness, and as an instrument for balance of payments adjustment. Monetary policy will be relieved of the burden of stable exchange rate maintenance and will also enable monetary policy to be more oriented towards realization of the economic activity level which is non-inflationary. In addition, monetary policy and monetary factors should not become a source of Denar exchange rate instability.

The following assumptions should be taken into consideration for monetary policy strategy in the following period:

a) The Republic of Macedonia is a small and open economy due to which exchange rate has significant role in trading with other countries;

b) The Republic of Macedonia is not an optimal currency zone with European Union member countries, i.e. there is no convergence in the economic performances of these countries.

In the period till 2010, the monetary policy strategy is expected to support economic growth of the Republic of Macedonia, with the following dynamics:

a) 1997–2002: phase of stability, in terms of revival of economic growth as a result of successfully implemented structural reforms in the economy. In terms of fundamental differences between economic performances of the Republic of Macedonia and European Union member countries, monetary policy will be oriented to long run stability, but in the short run the economic growth rate will accelerate by accepting relatively higher inflation rates. Thus, the annual inflation rates will not exceed the range 8%–10%. With labor market reforms and gradual realization of production factor mobility, and consequently wage flexibility, growth acceleration through inflation should stop, where the inflation rate should be reduced under 5%, on annual basis.

The regime of flexible exchange rate would still be in effect in the following five years, where the exchange rate level will be adjusted in line with the performance of fundamental factors over the long run. At the same time, normalization of monetary policy to link the growth of money supply and real interest rates with the non accelerating rate of inflation corresponding to the growth rate of potential production capacity will demand certain fiscal adjustments in the area of public consumption reduction. The reduction of public expenditure will create room for higher monetary growth and larger credit support to the private sector, i.e. lessening the pressure on private consumption realized through monetary policy. In accordance with that, monetary growth and its orientation towards potential production capacity utilization and the rate of non accelerating inflation will depend on the scope and dynamics of fiscal consolidation in the following 5 years.

b) 2003–2020: phase of convergence of economic performances of the Macedonian economy to the European Union member countries. In the period of achieving convergence of the real fundamental factors to the ones

in European Union member countries in the period 2002 till the end of 2010, the regime of adjustable fixed exchange rate could be accepted. After this period, the entire convergence of fundamental factors will be achieved and the strategy of exchange rate targeting as the main monetary procedure will be accepted. In addition, its utilization as an instrument for balance of payments adjustment and an instrument for maintaining the competitiveness towards abroad entirely will be avoided.

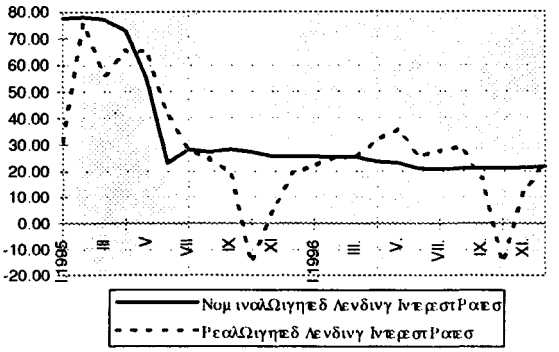
Short run utilization of interest rates as an instrument for supporting exchange rate stability will continue in the future, too. Nevertheless, in the long run, exchange rate stability will be determined by the economy's fundamental factors. In addition, due to the undeveloped financial markets, the role of interest rates will not be substantially changed in the following 3–4 years. With an increase in the deepness and competitiveness of the financial markets, it is expected that interest rates together with the exchange rate and money supply will become the main monetary policy operative targets and indicators.

In addition, due to the low level of domestic savings as compared with investments, which reflects lower supply as compared to demand for financial assets, it is expected that conditions will be created in the period up to 2005 for real interest rates to be on average one and a half to two and half times higher than those in the highly developed countries. In the period after 2005, when domestic savings are expected to increase and equalize with (or to overcome) the savings in fast growing economies, and simultaneously to achieve Republic of Macedonia's economic performance, convergence in economic performances of these countries, the real interest rates are expected to decrease and to converge with the interest rates in the developed countries. At the same time, lowering the interest rates in nominal and real terms, will be supported with fiscal reforms, too, through mild decrease of the public expenditure and spending in the first phase, more intensive fiscal consolidation in the second phase, and restructuring the Health and Pension Fund in the final phase of the fiscal reforms.

Having in mind these initial assumptions, it is estimated that the potential (optimal) economic growth in 1997 will amount to 3.5%, and in the period 2000–2002 potential growth will reach up to 6%, on an annual basis. This growth should be supported by the selected monetary policy and by the short run trade off between inflation and output in the range between 8% and 10% annual inflation.

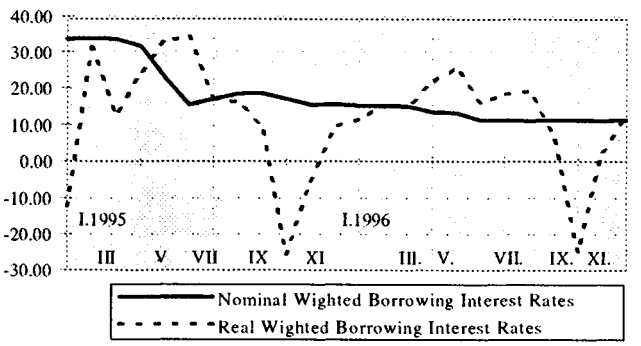
Graph 4

Nominal and Real Lending Interest Rates



Graph 5

Nominal and Real Borrowing Interest Rates



II. Instruments for Monetary Regulation

The main orientation of the Republic of Macedonia monetary authorities is that monetary regulation should be achieved through indirect market oriented monetary instruments. The Central bank of the Republic of Macedonia utilizes the following monetary regulation instruments: compulsory reserve, discount rate, reserve money sold and bought on auction, Lombard credits, and Central bank bills sold and bought on auction.

Insufficient development of the financial markets and instruments, which is manifested through the non existence of Government bonds, en-

terprises commercial securities, and the deep and transparent financial markets, enable monetary policy implementation to be based only on indirect instruments of monetary regulation. According to that, in the period of transition to indirect monetary instruments, credit ceilings are applied as an instrument for monetary control. It is expected that credit ceilings will be abolished as a monetary policy instrument after the end of 1997.

The use of indirect instruments for monetary regulation through which the terms of trade on the money market are influenced, should reflect the global orientation in the economy and the enhancement of the role of price signals as a basis for economic behaviour. Due to the undeveloped nature of financial institutions and instruments, indirect monetary instruments in the period 1997–2002 would be of "open market type operations" (sale and purchase of deposits on auction on the primary market), and after 2002 they would be transformed into market monetary regulation instruments performed on the secondary market in the form of outright sale and purchase and repo transactions of private and government securities.

The use of monetary policy instruments, have a most direct impact on interbank interest rates, given that through their movements, up and down, the supply and demand for money would be regulated. In the first phase, due to the lack of securities with good quality, the influence on interest rates would be realized through auctions for purchase and sale of reserve money by the Central Bank, and in second phase, in which a broad usage of good quality securities is expected, the influence is going to be performed through outright sale and purchase of securities and through repurchase agreements.

III. Banking Sector

Banks, which currently represent almost the entire financial system in the Republic of Macedonia, will remain the leading financial institutions. Over the short and medium term, they will practically be the only institutions that will be able to mobilize financial resources necessary for real sector privatization and restructuring. However, the banking system is burdened with a number of handicaps, such as: a) bad quality of their credit portfolios (bad loans); b) undercapitalization; c) high operational costs, etc. Especially in the next 4–5 years, Macedonian banks will have to pass through an intensive restructuring process in order to become efficient and competitive financial intermediaries.

Banks rehabilitation and restructuring

Beginning in 1995, a complex and costly banking system rehabilitation program was implemented in the Republic of Macedonia. The Government took over all bad loans from the biggest bank in the country (Stopanska banka a.d. Skopje), as well as the claims on banks upon different basis (London club, Paris club, so called "frozen" foreign currency deposits). Due to the high rehabilitation costs (assessed at around US dollar 2.0 billions), new rehabilitation rounds should be excluded. This attitude would represent a clear signal that banks should seek to achieve positive outcomes in their own restructuring, and not count on any government support.

For more efficient banking restructuring to occur, a few institutional disadvantages in the financial system should be resolved. **First**, the payment system currently performed by the Payment System Institution, should be transferred to banks. **Second**, a functional money market should be developed, in which the government would be allowed to take short-term loans, and banks and saving houses would solve their temporary liquidity problems. **Third**, there is a need to increase the credibility of banks which has suffered from the problem of "frozen" foreign currency deposits (additional complication are the recent financial crises). In the meantime, the confidence of banks should be restored through strengthening of supervision standards and capitalization of the Deposit Insurance Fund. Frozen foreign currency deposits could be transformed into securities quoting on the Macedonian stock exchange, making their transactions more simple and transparent.

The abolition of institutional disadvantages and the establishment of basic institutional infrastructure will occur in the next 2–5 years. The process of deepening and making more a sophisticated improvement of the market atmosphere in which Macedonian banks will operate, can be expected only after this period. For example, money market development will be determined by the extent to which the Government issues short-term securities. Having in mind that it is reasonable not to expect high level of activity of the Government in next few years in this domain, more dynamic money market development can be expected in the period after 2002.

Competition and privatization

There are clear indications that Macedonian banks have substantially changed their behavior over the last few years, and ceased to apply soft budget constraints. The coefficient of bad loans participation in banks credit portfolio has dropped from 85% at the end of 1993, to 32% in September

1996. This improvement is partly due to a drastic reduction of bank credits to the private and social sector, reflecting not only their more cautious behavior, but also the limited capacity of banks to assess the risk and to monitor their debtors. This suggests that further changes are required to enhance the competitiveness, privatization, and supervision, in order to increase banks motivation for adopting better credit decisions.

Regarding the state of competition, the Macedonian experience confirmed that the increased number of banks automatically does not mean a reduction in the price of banking services. On the contrary, in the whole period after monetary independence, banks maintained very high interest margins. Newly established small and insufficiently capitalized banks were not able to apply competitive pressure, and they took the "free rider" position, accepting high margins as a source for covering their high operational costs.

The involvement of foreign banks or foreign banks branches in domestic banking system would be a strong element for increasing competitiveness, having in mind that so far the banking sector (contrary to the real sector) was protected from foreign competition. Foreign banks would improve credit allocation, and would transfer their experience and business techniques. In this process, it is very important that only solid foreign banks get licenses, thus minimizing the possibilities for financial crises and criminal activities.

Banking privatization is in the progressive phase and it can be assumed that it will be completed in a few years. But, the current characteristic of the biggest banks is that they have too many shareholders. This creates serious management problems. In the post-privatization phase a concentration of ownership should be stimulated, in a transparent and legally based way.

Types of banks

Macedonian banks are traditionally defined as banks of universal type. In practice, this means that they are allowed to be engaged both in short-term and in long-term credit activities.

In developed countries with universal type banking systems (Continental Europe countries, especially Germany), banks usually have substantial amounts of shares in enterprises, that enables them to supervise the activities of their managers and to influence their decisions. That creates an efficient, market based mechanism for corporate governance, which is not the case in all transition economies, including the Republic of Macedonia.

Obviously, Macedonian banks can not perform that role at the moment, for several reasons. First, even larger banks have relatively small capital. This makes the holding of high amount of shares risky, bearing in mind that the value of Macedonian shares is going to be more unstable than the value of shares in developed countries. Second, even the most well equipped banks lack expertise and the human capital needed for sound surveillance and restructuring. Third, traditional banking activities are more profitable for banks, than having holdings in firms. Considering these arguments, the current prudential limit for the participation of banks in the shares of other banks and enterprises to 25% of their capital, seems rather reasonable.

The fact that banks are currently not prepared to undertake the role of active investors in firms, does not mean they will not be able to perform this function in future. Over the medium term, they seem the only candidates (except investment funds, with minor chances) to fill the vacuum in corporate governance. In order for this to be achieved, better banks should be allowed, under strictly controlled circumstances, to get the experience in restructuring and management in firms that cannot repay their debts. Their experience would be valuable in ensuring that the banking system is sufficiently matured and competitive for involvement in the management and corporate governance of non-financial firms. However, more intensive engagement of Macedonian banks in investment banking can be expected in the period after 2002 or 2005.

IV. Capital Market and Non-bank Financial Institutions

In the short and medium run, the Macedonian capital market (for shares and bonds) will play a very limited role both in investment financing, and in imposing financial control over enterprises. The fact that capital markets will be dominated by banks, does not mean that their development should be postponed. Empirical analysis shows that countries with more developed capital markets simultaneously have more developed banks, while countries with less developed capital markets have less developed financial intermediaries.

There are no doubts that deep structural impediments exist in the Macedonian economy, preventing the development of capital markets. First, there is no liquid and competitive banking sector, as important institutional element of capital markets. Second, the necessary institutional, legal and regulative preconditions for their efficient functioning are not fulfilled. The Stock exchange was constituted in March 1996, and necessary laws and pro-

cedures, as well as accompanying institutions that will promote the securities trade, have to be established. Third, as in many transitional economies, there is a clear tendency in the Republic of Macedonia for insiders (managers and workers) to exercise control over enterprises. Insiders, naturally, are trying to avoid the sale of their shares, and are not interested in outside shareholders.

The creation of legal and regulative infrastructure

Besides these obstacles, it is a fact that a significant supply of shares was created in the privatization process. According to some assessments, around 300,000 individuals posses shares in privatized firms. In order to use the long-term potential of these shares, a necessary legal framework should be created for supporting the trade in securities. This will require the adjustments of legal regulations in many different areas, such as financial markets, securities, enterprises, banking, ownership rights, taxes, accounting, etc. Most of these regulations are not adopted yet, and under current regulations, there are some disputable decisions from the capital market development standpoint (for example, article 290 in the Trade Companies Law, that ties the transfer of shares with approval of the management body).

The key objective in establishing a comprehensive legal and regulative framework should be the creation of incentives for evolution from broadly diversified insider ownership to more concentrated ownership. The concentration of ownership through secondary transactions is a necessary precondition for intensification of post-privatization restructuring. In the short run, the insiders (managers) will be those who will benefit most from concentration. Simultaneously, participation of outside investors in a process of consolidation of ownership should be enabled, and public dissatisfaction in the non transparency of the process of ownership consolidation should be avoided. Reaching the equilibrium between these two objectives will require the adoption of complex and detailed regulation, oriented towards few basic directions.

First, basic shareholders rights should be protected in all privatized enterprises through company regulations (mostly the Law for Joint Stock Companies), as well as through special institutional arrangements. For example, dematerialization of securities and creation of central registers in many transitional countries proved to be very efficient in the protection of shareholders rights, after mass privatization). Second, it should be defined which enterprises can be treated as open or public companies. They should

have no restrictions in the transfer of shares, and they have to follow international standards in presenting information for their activities. Third, enterprises that will permanently belong to employees, should be organized as similar enterprises in developed countries (for example, like so called ESOP firms). This understood clearly defined rules for sale and purchase of shares, the price determination process, voting, maximum, and minimum shares that can be possessed by individuals, etc.

If in the next one-two years this regulation and legal infrastructure is going to be created, this will be a good base for demand increase (that is lacking now), necessary for normal development of market of shares. In the long – run, the development of market for shares will be mainly determined by the dynamics of economic growth, and the profitability of Macedonian firms. Regarding the bond market, both supply and demand have to be created. Government bonds will probably be more frequently used than corporate bonds, but their efficient investment will require enhancement of the financial credibility of the Government, and improvement in the liquidity of banks. Having this in mind, the intensification of long-term government securities issues can be expected in a period beyond 2000.

Non-bank financial institutions

The development of non-bank financial institutions is closely connected with the development of capital markets. This means that more intensive dispersion of these institutions can be expected only after 2002.

The Pension Fund, based on the principle of current inflow and outflow of funds (pay-as-you-go), cannot play the role of an important financial intermediary, although it possesses shares in privatized firms. That system is faced with serious troubles and spends a much bigger part of gross domestic product (more than 12% in 1996) than in countries with a similar level of development.[2] But, it seems that it is politically not real to expect fundamental reforms in the current pension system, as that would affect a large number of people, and would weaken the support of economic reforms. Still in the long-run, beginning around 2002, pension system reform is unavoidable in a sense of reduction of the Pension system scope and creation of capitalized private funds.

[2] In European countries – members of OECD, social contributions reach an average 11.3% (1992). Source: Revenue Statistics, 1965–93, OECD, Paris, p. 75.

In that way, current Pension Fund and future capitalized funds, together with one or more insurance companies, would be transformed into significant financial intermediaries, that will stimulate long-term saving.

Investment funds in the Republic of Macedonia will not have the significance and number as in transitional economies that adopted mass privatization schemes. They will primarily be designed as conventional investment funds, that will mobilize savings of small investors and will enable diversification of their portfolios. If they succeed to adequately capitalize themselves, they could play a more important role in corporate control and firms restructuring.

4. CONSOLIDATION OF THE THE FISCAL SYSTEM

I. Current Conditions

Since the independence of the Republic of Macedonia important reforms have been carried out in the tax, budget and pension systems in order to adapt them to suit the profound transitional transformations in the economic and social system. This will also put them on a more rational basis, so that they become more adaptable to, and more consistent with the goals of macro-economic and development policy and are compatible with the fiscal systems of the developed market economies.

Reforms in the tax system since 1993

Based on the concept of creating a modern fiscal system, during 1993 several measures were carried out for the enactment of new solutions in the fiscal system.

Personal income tax was introduced for the first time instead of the seven earlier scheduled income taxes, each with a different tax rate.

For the **profit tax,** a single rate was established instead of tax rates differentiated according to economic branches and activities.

Radical changes were made in the level and the rates of **property taxes**, and the arbitrary administrative determining of the value of the property representing the tax base has been changed by determining its market value.

Excise taxes were separated from the **retail sales tax on goods and services** as a separate tax on specific goods and services levied, in accordance with general practice in modern fiscal systems, on: oil derivatives, cigarettes and alcoholic beverages, automobiles and coffee.

A new **Import duties tariff** has been adopted with a lower average customs rate of 15% (weighed 6.5%) and a smaller dispersion of the rates according to product or service groups, in accordance with the nomenclature, the basic principles of the World Trade Organization (WTO) and the import duties of the European Union.

Technical, expert and staff training is being carried out leading to the introduction of **Value Added Tax (VAT)** in 1998/99.

Since this reform has been carried out the tax system of the Republic of Macedonia consists of the following types of taxes: **personal income tax; profit tax; retail sales tax on goods and services; excises; import duties; property taxes;** and other taxes (administrative and court fees, communal and user charges, etc.).

♦ At the same time, the following basic principles have been accepted into the tax system through the stated changes in the structure of the tax system: *allocation neutrality of taxes; enlargement of the tax base; a radical reduction of fiscal exemptions; a reduction of high marginal tax rates, and a greater simplicity and transparency of taxes.*

Also, in the new tax regulations, the broad differentiation of the tax rates for most types of tax has been abandoned. Thus, personal income tax is paid according to a single scale of the **three tax rates: 23%, 27% and 35%.**

The tax on profit is paid according to a single rate of 15%.

The retail sales tax on goods and services is now levied according to **two rates for goods: a standard or general rate of 25% and a lower rate of 5%.** For services **a standard rate of 13%** has been established.

With the newly-prescribed property tax rates of **0.05% of the value for moveable estate and 0.01% for real estate**, the attitude of taxpayers toward this form of taxation has completely changed (evasion has almost been eliminated) and the difficulties involved in its collection have been removed. There existed a drastic anomaly in the tax treatment of sales transactions of real estate, where the tax rate of 20% of the value of the property had a limiting effect on free transactions in real estate (arable plots, construction sites, houses and apartments). A **rate of 3%** has been prescribed by the new Law on trade in real estate.

♦ The tax exemptions, subsidies and other tax reductions and incentives which were rather broadly practised in the previous system (because of economic, social and other considerations) have been abandoned or considerably reduced, because the tax stimulants ("tax expenditures") create distortive and substitution effects on the allocation of resources and on the other relations formed under a market mechanism.

Certain stimulants which are present in the new tax regulations, apart from being very limited, have been determined solely as a criteria basis, and related mainly to developmental goals. For example, the case with the profit

tax and the recognition of accelerated amortization when speaking of investments in technological and structural modernization, also when speaking of investments in less developed regions or in ecological improvement, in the case of reinvestment of profit and of foreign investments in domestic enterprises. In the case of retail sales tax, only some basic foods have been exempted (bread, milk, cooking oil, water).

Changes in social security contributions

Social security contributions – towards pensions and invalidity, health and unemployment benefits – are a special category of public revenues which, according to their character and to the effects they achieve, are equated with other fiscal revenues, and are strictly earmarked taxes. According to their dimensions and effects in modern countries, they are an important component of the total fiscal burden. In the last years (1994–97) they have contributed 34–35% of the total public revenues[3] in the Republic of Macedonia, that is to say that through these contributions 15% of the gross domestic product (GDP) is engaged. Because of the relatively high deficit which has been created, especially in the financing of the pension fund, during 1992–94 *the rate of the contributions to pension insurance was increased from 18% to 20%, and that to the employment fund from 0.8% to 1.5%*. These adjustments of the rates made a certain increase of the revenues of the respective funds possible, even though not to the extent of totally covering the financial deficits in social insurance.

Along with the health insurance contribution, which is levied at a rate of 8.6%, the three social security contributions form an aggregate rate of 30.1%, which relatively highly burdens the wages of the employed and is a substantial cost in the functioning of enterprises and other activities, with a negative effect upon the demand for work-force, employment and development.

Reforms of the budget system

Along with the reforms in the fiscal system of the Republic of Macedonia substantial changes have also been made in the budget system. *A new Budget Law has been passed which has been implemented since 1994.*

[3] In the OECD countries 25.9% of the total fiscal revenues came from social contributions in 1994. ("Bulletin for International Fiscal Documentation", 1997, No. 7, p. 304.)

It redefines the whole budget process, from the preparation to the passing and implementation of the budget.

A new nomenclature of revenues and expenditures has been introduced in accordance with international standards and classifications.

The principle of budget unity has been subsequently implemented in the new budget system. Numerous non-budgetary funds and other autonomous subjects in the public sector have been revoked or were included in the budget. It has been ruled that the budgets of the local self-government authorities and of the social security funds must be co-ordinated with the Ministry of Finance before they are passed.

The need for consistency of the annual budget with the goals of macro-economic policy, and with the key macro-economic variables for the year in question, has been explicitly stressed.

The principle of the exclusive sovereign right of the central authorities to introduce (prescribe) public revenues and to distribute them between the state and local budgets is contained in the Budget Law. For this reason, taxes and other public revenues which belong to the state budget have been listed in the Budget Law, and these are actually all the types of taxes with the exception of property tax and communal fees, which are determined as primary fiscal revenues in the budgets of local government authorities. The Law envisages that the state Budget must supply additional funds (grants) to the local authorities to cover the lack of revenues of their own for carrying out standard public functions at a local level.

For the financing of the budget deficit, the Law envisages that the Government will be able to incur debts to legal and physical persons in the country and abroad. However, local government authorities and the social security funds can take out loans only from the state budget for covering budget deficits.

It is separately prescribed in the Law that the limit to which the State can be indebted for the financing of the budget deficit and the limit to which the public debt of the state can be increased are to be determined annually. The Ministry of Finance is separately in charge of keeping complete evidence of the public debt.

For control of the use, and the spending of revenues the Law compels the Assembly of the Republic of Macedonia to form an independent public service and to determine its authorization and tasks.

According to all these solutions the new Budget Law, implemented since 1994, is an appropriate normative framework for a modern regulation

of the budget system and for adjustment of the budget policy to the macro-economic and development goals.

II. Forthcoming Reforms

Completing the reforms for a modern and efficient fiscal system

Bearing in mind the stated conditions in the fiscal sector, the directions of its adjustment in the forthcoming period (especially until 2000) should be determined by the following:

- to complete the reforms in connection with the legal, institutional and structural modernization of the fiscal system, in compatibility with the prevailing modern solutions of states with developed market relations;
- rationalization of the structure and reduction of the scope of public expenditures within the framework of the budget and the social security funds;
- reduction of the total fiscal burdening of the gross domestic product (GDP), a firm orientation and co-ordination of fiscal policy with the key economic priorities, first of all by maintaining macro-economic stability, and through realization of a sustainable growth and modernization of the economy;
- improvement of competency and efficiency of the fiscal administration in the collection of public revenues and prevention of evasion;
- establishing an efficient control of execution of budget and other public expenditures; and
- introduction and enhancement of the system of treasury operations of the budget.

Detailed elaboration of some of the more important solutions is presented in the following pages.

Finalization of the tax reforms

As has already been stated, the fiscal system of the Republic of Macedonia introduced in 1994 on the basis of partially implemented reforms, to a certain degree came closer to the dominating model of fiscal systems in countries with developed market economies. However, this reform did not bring the modernization of the system to an end, but retained several measures which deviate from the concept of an integral modernization of the system. Within the finalization of the fiscal reform, which can be expected in the

next one to two years (1998–99), it is necessary to carry out the following essential changes:

♦ **Introduction of a corporate income tax, instead of the existing profit tax.** The taxpayers of the corporate tax will be what are styled as associations of capital, such as share-holding companies (in the form of corporations, companies, etc.) and public companies.

In contrast to such a solution, the payers of the existing profit tax are not only the legal entities organized as associations of capital, but also all physical persons and legal entities which carry out economic or professional activities from which they realize profit.

♦ **Personal income tax must be completely equated, in all its basic elements, with the personal income tax which is in operation in the contemporary developed fiscal systems.** According to this change, the payers of personal income tax will be owners of non-corporate enterprises and companies, regardless of their actual legal status, organizational form or size.

In the tax base of personal tax, all forms of income realized by a taxpayer will be taken into account: wages, income from a work relationship, pensions and invalidity compensations, income from agricultural activities, income from economic and professional activities, income from property and property rights and other incomes, such as income from capital (dividends, interest on savings), from capital gains, gains from gambling, etc.

♦ **Introduction of Value Added Tax (VAT) instead of Retail Sales Tax.** A certain approximation of the VAT and the existing sales tax has been carried out through the previously mentioned reduction of the number and level of tax rates, also through the broad range of goods and services for taxation, with a more efficient mode of taxation of goods and services upon import, etc.

A text has already been prepared for the future VAT Law by the Ministry of Finance, based upon the experiences of several western European countries and in accordance, to a large extent, with the Recommendations from the European Union. Staff training is being carried out and, at the same time, preparations are being completed for a technical and staff completion of the information base for a successful implementation of VAT.

Finalization of social security reforms

Bearing in mind the conditions in the social security sector, measures are necessary for a more lasting regulation of financing, of the rights of the

insured and of the other open issues in the three segments of social insurance – invalidity-pension, health and unemployment benefits.

♦ In the light of the level of the aggregate burden of the GDP from the three contributions to social security which amounts to 15%, one must expect this fiscal burden to be reduced to a level of about 12% of GDP.

Through improvement of the economic conditions in the country and of the standard-of-living, favourable conditions will be created for the acceptance of a combined system of social security: a compulsory one in the public sector and a voluntary one for certain risks in the private sector.

♦ In modern systems, social security contributions are levied from two sources: from the gross wages of employees, which burdens the employees, and from the total amount of gross wages paid (payroll), which burdens companies and is recognized as an operational expenditure. In the practice of western countries, the rate of the social security contribution which burdens the company is always higher than the rate which the workers are charged. In 1992 approximately 1/3 of the total social security funds were realized as a burden on wages of employees, and 2/3 as a burden on employers.

♦ In the current system in our country the aggregate fiscal burden upon the gross wage of a worker, from personal income tax (rates 23%, 27%, or 35%) and from the combined rate of social security contributions (30.1%) amounts to 42.8%, while these fiscal obligations amount to 75% of the net wage of a worker. This, as has already been stressed, has a negative consequence on employment, working costs and competitiveness.

Reduction of the fiscal burden

The total fiscal revenues realized from all types of taxes and from social security contributions have formed a global burden on the GDP in the last two years (1996–97) **of 42.8%**. Of these, 27–28% are taxes for the financing of the state and municipal budgets, and approximately 15% are for the financing of the three social security funds (see Appendix). This level of the total fiscal revenues is somewhat higher than the average burden in the European member-countries of the OECD, which, in 1994, amounted to 40.8%, and for the European Union member-states it was 42.5% of the GDP.[4]

[4] Ken Messere: "OECD Tax Development in the 1990s", p. 303; Bulletin for International Fiscal Documentation, No. 7/1997.

Fiscal burdening, however, differs in various OECD member-states. Thus, in the Scandinavian countries and in Denmark and Holland it is between 46%–50% of the GDP; in France, Germany, Italy, Greece, Austria and Belgium from 40%–45%; while a fiscal burden of under 40% is registered in Great Britain, Ireland, Iceland, Spain and Portugal. Turkey has the lowest fiscal burden (23.1% in 1992) among the OECD member states. According to these comparisons, the Republic of Macedonia is placed somewhere in the second group. (see Appendix)

A global comparison of the structure of the fiscal burden of the GDP between the Republic of Macedonia and the European member-countries of the OECD gives the following picture:

Table 2

Fiscal burden of the GDP

(in %)

	With taxes	With social security contributions	Total
	1	2	3
European members of OECD (1992)	29.2	11.3	40.6
Republic of Macedonia (1996)	27.6	15.2	42.8

In some countries in transition in 1995 the total fiscal burden amounted to: 27% in the Russian Federation; 43.7% in Belarus; 42.8% in Ukraine; 36.9% in Estonia; 50.4% in the Czech Republic; 50.3% in Hungary; 46.7% in Poland; 47.3% in the Slovak Republic.[5]

– More detailed comparative analyses of the distribution of the fiscal burden according to types of taxes show that the revenues derived from personal income tax and the profit tax in the Republic of Macedonia are 40% to 50% lower than those in the member-countries of the OECD. Namely, in this country in 1995 and 1996 the revenues from these two taxes amounted to 7.6% of the GDP and in the OECD they amounted to 13.8% of the GDP (data for 1992). Among other things, this is objectively due to the well-known difficulties of the Macedonian economy in this period, to the high increase in unemployment, and to a real reduction of the standard-of-living, especially of wages and pensions, which lowered the fiscal basis for these

[5] Source: IMF, "Fiscal Policy Management for Economies in Transition", Fiscal Affairs Department, June 1996, Table 3a.

two types of taxes. Nevertheless results would surely be substantially better with a higher efficiency of the fiscal administration in tax payment and in reducing evasion substantially.

As opposed to the effects of the direct taxes – personal income tax and the profit tax, revenues amounting to approximately 17.9% of the GDP are collected through taxation on consumption through the retail sales tax on goods and services, excises and customs duties, compared with 12.9% in the European countries of the OECD. These differences are especially evident in the excises and the customs duties.

The above-stated relations in the distribution of fiscal burdening according to separate types of fiscal revenues is further illustrated in the following table:

Table 3

Structure of Fiscal Revenues Sources

(% of the GDP over the total fiscal revenues)

TYPES OF FISCAL REVENUES	European members of OECD		Republic of Macedonia					
	From the GDP	From total fiscal rev.	From the GDP			From total fiscal revenues		
	1992		1995	1996	1997	1995	1996	1997
1. Personal income tax *	11,4	27,8	6,4	6,2	5,9	14,3	14,5	13,8
2. Profit tax	2,4	5,8	1,3	1,4	1,5	2,9	3,2	3,5
3. Taxes on goods and services **	12,9	31,9	5,5	5,9	5,9	12,3	13,9	13,8
4. Excises	(4,8)	(11,9)	8,0	7,5	7,2	17,8	17,6	16,9
5. Customs taxes	–	–	4,7	4,5	4,5	10,6	10,5	10,5
6. Other tax and non-tax revenues.	2,5	6,6	3,3	2,1	2,0	7,4	5,0	4,7
I. TOTAL TAXES	**29,2**	**72,1**	**29,2**	**27,6**	**27,0**	**65,3**	**64,7**	**63,2**
II. CONTRIBUTIONS FOR SOCIAL SEC.	**11,3**	**27,4**	**15,6**	**15,2**	**15,7**	**34,7**	**35,3**	**36,8**
III. TOTAL TAXES AND CONTRIBUT.	**40,5**	**99,5**	**44,8**	**42,7**	**42,7**	**100,0**	**100,0**	**100,0**

Source: * On OECD – "Revenue Statistics", 1965–93, Paris, OECD, pp. 72/75. For the Republic of Macedonia – data from the Ministry of Finance, 1997 (annual report and budget).

** All revenues from VAT, excises and customs taxes are contained in the data from OECD – in the taxes on goods and services (3 = 12,9 and 31,9%).

Based upon the previously-stated analyses and comparisons it can be assessed that within the framework of the forthcoming fiscal reforms it is

necessary, and practically possible, to carry out a redistribution of the gross domestic product from the current rate of 42.70% (1997) to approximately 40% (2002). The burdening should further be reduced from 40% to 36–37% by the year 2020.

With a parallel adequate reduction of public expenditures, the fiscal sector would free additional resources for productive use amounting 2.5 to 3 percentage points of the GDP in the middle-term, and another 3 percentage points in the long-term (by 2020). We would like to state that half of the OECD member-states have a fiscal burden under 40%. (see Appendix)

Adjustment and rationalization of public expenditure

The total net amount of public expenditure in the Republic of Macedonia during 1996–97 has amounted to approximately 45% of GDP, with a tendency to decrease. The budget, being the principal bearer of public consumption, has engaged almost 2/3 of the total public expenditure, while approximately 1/3 of the total public expenditures are accounted for by social security funds, as the second major participant in public expenditure. (see Appendix).

In comparison with the proportions of these two segments of public expenditure in the developed European countries, and also in the countries in transition,[6] it can be concluded that the global level of public expenditure is among the moderate ones, and that a gradual reduction should be realized to 40% of the GDP.

[6] According to data from certain OECD member states, the total expenditures of the **central government** related to the GDP amounted to: Greece (1993) – 43%, Portugal (1992) – 48%, Ireland (1992) – 42%, Denmark (1994) – 44%, Spain (1992) – 36%, Germany (1991) – 32.51%. While using this data one should bear in mind the degree of fiscal decentralization and independence in financing of the sub-central authority (Germany and Spain).

Source : Government Finance Statistics, Yearbook 1995, IMF, Washington, pp. 92/93.

Dimensions of total public expenditures in certain countries in transition amounted to (in relation to the GDP): Slovenia 45 (1996); Croatia 48 (1997); Slovakia 46 (1996); Poland 47.5 (1995); Hungary 50.5 (1996); Czech Republic 45 (1996); Bulgaria 41.7%.

Source: European Bank for Reconstruction and Development; *Transition report update*, April 1997.

The budget expenditure in the past three years reached a level of about 29–30% of the GDP. Taking into account the character and structure of the budget expenditure, and in comparison with European countries, the level of approximately 28% of the GDP can be accepted as an upper line for consolidation of the budget expenditure of the Republic of Macedonia, in the medium term.

By rendering the total expenditure of the social security funds from 15–16% to approximately 12% of the GDP, the global engagement of the GDP for the financing of public expenditure could be normalized **at approximately 40%.**

The realization of such a levelling of public expenditure in the two above-mentioned segments – the budget and social security, is possible only if based upon a previously determined programme with an elaborated dynamics and structure of changes.

The comparative picture of certain functional and economic categories of budget expenditures, prepared for eight selected countries in development: Bangladesh, Chile, Ghana, India, Mexico, Morocco, Senegal and Thailand, on the one hand, and the Republic of Macedonia, on the other, also gives certain indications. The data shows that the Republic of Macedonia is lagging in *expenditures for education* behind the average of the previously-listed states, and behind each of them separately, except for Bangladesh and Chile. On the other hand, the *amount for wages* in the compared countries is on average 28% of total expenditure, while this expenditure category absorbs almost 1/3 of the total budget consumption (32.5% in 1996, and 34.2% in 1997), revealing the problem of surplus-employment in the state administration of the country.

Because of negative consequences in the social sphere accompanying the process of transition, the participation of *expenditures for social and other similar transfers* in the budget of the Republic of Macedonia is higher than in the listed countries in development, except for Chile, Mexico and India.

The share of the budget *expenditure on capital investments and capital transfers* is substantially lower, which is in accordance with the well known principle of maximum de-budgetization of this category of expenditures in the Macedonian system, bearing in mind the current sharp budget limitations.

More complete information can be obtained from the following table:

Table 4

Selected functional and economic categories of expenditures

(participation in total public expenditures)

I. Functional expenditures	Selected countries	Macedonia
Education	20,7%	17,0%
Health	5,8%	7,9%
Defence	11,2%	9,1%
II. Economic expenditures		
Wages	28,0%	32,4%
Goods and services	15,7%	14,6%
Subsidies and other transfers	28,4%	31,1%
Capital expenditures and capital transfers	28,6%	6,5%

– The column denoted as selected countries, as already mentioned above, relates to the average of the eight countries mentioned above.

Source: The Composition of Fiscal Adjustment and Growth: Lessons from Fiscal Reforms in Eight Economies, IMF, Washington D.C., March 1997, pp. 52/53.

*

The budgetary expenditure of the Republic of Macedonia still does not have a consolidated sustainable composition and a rational basis because of several specific objective factors.

♦ This particularly concerns the category of expenditure relating to the transitional processes which in these years has had an important influence on the structure and the volume of budgetary spending. Such expenditures are, for example, transfers for the restructuring of banks, repayment of foreign credits taken over from commercial banks, payment of the obligations based on frozen foreign currency savings of the citizens, compensation of workers dismissed as redundant because of the restructuring of a group of larger enterprises, and an increase of transfers for socially threatened persons because of the impoverishment of broad layers of the population. Almost 25% of the total budgetary expenditures of the state have been engaged for such and similar aims during the last several years (1994–97).

It is to be expected that some of these expenditures will become lower in the forthcoming years, even though a substantial part of them will continue to burden the state budget for a longer period of time, especially repayment of foreign loans and social transfers.

♦ Transfers to the funds for pensions insurance and employment, also the payment of children's allowances, etc., which all together constitute over 8% of the total expenditure of the state budget, deserve special mention. These budgetary expenditures should also be gradually reduced as a result of reforms, which are already under way, to balance and regulate the pension system and the social assistance system.

♦ A special category is that of defence expenditure, and also expenditure on the establishment of a network of diplomatic-consular representative offices, the customs service, the courts, and the public revenues administration, which are still in the phase of further constitution, staffing and material completion. Defence expenditure absorbed approximately 9% of the budgetary expenditure of the state (1997), i.e. it amounts to 2.54% of the GDP, which, according to the usual standards, qualifies it as relatively moderate[7] , bearing in mind that initial organization and equipment of the Macedonian Army is still being carried out. In the previous period the defence expenditures were financed totally from the central budget of the former Yugoslavia.

♦ Another group of budgetary expenditures, the financing of certain important public functions sectors, is seriously constrained (under-budgeted) because of the global limitation of the budget, which has been objectively imposed by the deteriorated economic situation in the country and by stabilization measures within the framework of the macro-economic policy. This relates to expenditures on education, science and culture, as expenditures on investments in the human factor. Of the total budgetary expenditure approximately 20% (of this, 27% is for education), or 6.5% of GDP are allocated to these sectors.

♦ The improvement of this whole sphere of public services is one of the important goals of the programme for improvement of the structure and the quality of budgetary expenditure.

In coordination with the application of monetary policy in the implementation of the stabilization program, a key role has been played by the restrictive fiscal policy, keeping the global dimension of public expenditure under control, its gradual reduction and the freezing of the wages of the cadre employed in the public services. This has been prolonged for five years, though certainly with a negative effect upon the selection of staff and its mo-

[7] In 1991/95 the military expenditures in relation to the GDP on average for the industrial countries amounted to 2.7%; for the countries in development this was 3.0%; for countries in transition 4.1%.

Source: Sanjeev Gupta u.o. *Worldwide Military Spending*, June 1996, IMF W/P.

tivation. Because of this, the problem of correction of the remuneration of employees in public services and a more pronounced differentiation in their wages remains open within the measures for the rationalization of the state administration and for improvement of its professional competence and efficiency.

Budget deficits

The problem of budget deficits is of special importance in the fiscal policy. As was stated previously, the Budget Law does not exclude the possibility of the annual budgets showing a deficit. In order to cover any such shortfalls the Law allows indebtedness in the country and/or abroad. Thus, it is a positive fact that there is no possibility built into the Law for direct inflationary financing of the deficit through indebtedness to the Central Bank and its covering through issuing money.

As can be seen from the following table, the deficits in the state budgets for 1995, 1996 and 1997 have totally been covered through indebtedness abroad.

Table 5

Budget deficits[8]

(in million Denars)

I. State budget	**1995**	**1996**	**1997**
1. Total revenue	49,400	43,315	41,520
2. Total expenditure	51,200	46,364	44,454
3. (2–1) **Deficit**	**1,800**	**3,049**	**2,934**
4. Deficit in % of the GDP	1.25%	2.06%	1.88%
II. Financing the deficit			
1. Indebtedness abroad	1,800	3,049	2.934
2. Domestic indebtedness	–	–	–
3. (1+2) Total:	**1,800**	**3,049**	**2,934**

Source: Final calculation of the budget for 1995 and 1996; the budget for 1997.

[8] The countries in transition, almost without exception, registered lower or more substantial deficits in their budgetary financing. Thus, for example, Bulgaria's deficit in % of the GDP in 1995 and 1996 amounted to 5.7% and 8% respectively , Albania to 7.4 and 12.3%, Romania 2.8 and 5.4%; Hungary 6.5 and 3.5%; Croatia 0.9 and 0.5%; Slovenia 0.03 and 0.6%; Poland 3.5%; Ukraine 4.9 and 4.5%; Russian Federation 4.9 and 7.7%.

Source: *Transition Report Update*, European Bank for Reconstruction and Development; April 1997, pp. 35/59.

These data clearly show that:

♦ In the three years shown, the budget deficits do not have a worrying dimension. (1.25%; 2.06%; and 1.88% of the GDP which is less than the Maastricht parameter of 3% of the GDP).

♦ In these years the deficit has been financed through funds from the loans received from the IMF and the World Bank.

Bearing in mind the size of the budget deficits, their financing could be ensured from the regular fiscal revenues, namely through an increase in the efficiency of the collection of taxes, without raising the existing tax rates. This would create a possibility for the deficits to be eliminated within the medium term (2002), even more so with the effects from the fiscal reform and the measures for reducion of the budgetary expenditures.

*

Even though the orientation for overcoming the problem of budget deficit is not being questioned, one must bear in mind the relevance of some of the following open issues in that sphere. Thus, for example, *the repayment of the "frozen foreign currency savings of the citizens"* is waiting to be solved, which will mean an additional budgetary obligation for a number of years. Likewise, the passing of the Law on the *Denationalization of Property nationalized in previous periods* will also create new obligations for the budget (according to first assessments approximately as much as servicing the "frozen" savings of the citizens).

It is realistic to expect a certain increase of the transfers from the State Budget for the *financing of local budgets*, most of all because of the threefold increase in the number of local government authorities (from 34 to 123) starting from 1997, and the restricted sources currently available to them. Financing local authorities in any case deserves a thorough review within the framework of measures for the consolidation of the budget expenditure, from a conceptual point of view, because of the existence of a high degree of centralization in the distribution of public functions and of revenue sources between the state authorities and the local governments. It need only be mentioned here that the total expenditure of the local budgets amount to approximately 0.50% of the GDP, i.e. 1.20% of the total state budget expenditures (1996).

To all these issues must be added the practice during the implementation of the budget of creating *overdue or unpaid obligations – arrears burdening the budget.* In 1995, and 1997, because of the poor collection of

revenues, a reduction was made in the budget expenditure within a general re-balance of the budget, and in 1996 this was achieved through a factually reduced effective financing of the budget expenditures and the unpaid budgetary obligations.

♦ This especially raises the necessity for the introduction of treasury operations in the realization of the state budget, at the same time with establishing a domestic market for state securities and the creation of the practice of non-bank financing. A treasury system would make the implementation of the budget more efficient and more flexible, especially in relation to the regularity of the payment of wages, pensions, suppliers, etc., which now depend upon current inflow of budget revenues.

5. EXPANSION OF FOREIGN TRADE AND SUSTAINABLE BALANCE OF PAYMENTS POSITION

I. Foreign Trade

The natural characteristics of the Republic of Macedonia as a small country at the intersection between western and eastern transport corridors determine its economic survival and development as dependent on the level of openness and cooperation with respect to the global community. For these reasons it appears quite logical that a Strategy for the Economic Development of the Republic of Macedonia should be based on the promotion of exports as a development catalyst.

The orientation of Macedonia towards export-based development – as well as the success of such a strategy – is determined by external and internal factors. Among internal factors affecting the economic development of the Republic of Macedonia in terms of concentrating on net-export are: a) the necessity of reducing current consumption in conditions of low domestic saving; b) it is expected that the restructuring of the business sector and increasing of investments in the coming years will result in a faster growth of the production of tradable goods and services in comparison with non-tradable ones; and c) the favorable institutional solutions which have created prerequisites for reviving the foreign trade, among which the most important are the high level of the foreign trade liberalization regime and the restructuring of customs legislation. Thus over 97% of all export goods and more than 98% of all those to be imported fall within the free export/import regime. This is complemented by the total convertibility of payments/demands to/from foreign partners on the basis of current transactions. Nevertheless, there are still restrictions on capital transactions. At the same time new customs tariffs have been enacted, lowering the average customs duty rate to 10.1%, and the entire customs tariff system has been adapted to the international standards and principles of the World Trade Organisation and the tariff system of the European Union.

The success of an export oriented strategy will also depend on external factors, of which the most important are: a) the business cycle developments in the world economy, as a factor influencing the demand for Macedonian goods and services; b) the pace at which the economic and political crises in countries of the narrower region will be resolved. In this context, it is expected that the decreased purchasing power of the population in these countries will entail a lowering of the foreign trade with them in the next few years, while increasing the trade with the wider region (EU, the Vishegrad Four) and Greece and Turkey. Once the political situation has become stable in countries belonging to our immediate surroundings, and sound economic growth has been achieved, the former level of goods and services trade should be achieved again. Therefore these countries will again grow into significant trade partners of the Republic of Macedonia; and c) the pace at which the Republic of Macedonia achieves integration within international economic and trade associations, institutions and organisations – first and foremost the EU, the OECD, the WTO, etc.

Table 6

Export and import of goods and services over the period 1992–1996

(million US dollars)

	1993	1994	1995	1996
FOB export of goods	1.055	1.086	1.205	912
CIF import of goods	1.012	1.271	1.425	1.333
Trade balance	43	-185	-220	-421
Net service balance	-154	-155	-200	-111
Balance on current account	15	-158	-216	-485

Source: NBRM Gazettes, various editions.

The economic structure of the Republic of Macedonia was created in conditions when Macedonia still represented a federal constituent of SFR Yugoslavia, within which its development priorities were marginalized and subjected to the needs of the wider community. The unfavourable structure thus inherited has deteriorated considerably over the past few years, as a result of obsolescent production technology and the lack of possibility of its modernization due to low investment rates. Such a production structure embodies a restricting factor in terms of the export potential of the Macedonian economy. This may account for the fact that the structure of goods entering international trade is unfavourable as regards the prevalence of raw materials and unfinished goods in both the export and the import sector. They consti-

tute a share of 51.5% of overall exports; consumer goods prove to be another key category with 45.6%, while means of production constitute a mere 2.9%.[9] The structure of imports is fairly similar, as raw materials and unfinished goods dominate with a share of 60.8%, consumer goods amount to 27.4% of all imports and only 11.0% by equipment.

Bearing in mind that new technologies are decreasing the use of raw materials and are knowledge intensive at the same time, the objective should be to lower the share of raw materials and unfinished goods in both the export and import side. Their share should be reduced to between one third and one quarter of the overall goods turnover. Considering, however, the fact that the Republic of Macedonia is technologically inferior to other West European countries – though trade will mainly have to focus on the latter during the first few years as the neighboring countries are being shaken by crises – the contribution of technological progress to a structural transformation of exports and imports may only be felt in the medium and long term.

The structure of export and import should also be subject to change concerning the level of processing of the traded goods. With regards to the exports it will be necessary to increase in the future the share of highly processed and labour intensive goods. The import structure will have to be altered in a manner preventing the domination of highly processed goods, while at the same time increasing the import of unprocessed goods and goods with an ordinary level of processing.

The international market pays particular attention to product quality and standardization. The quality of goods obtaining permission to be traded on the world market is outlined in a separate set of international standards and regulations (ISO 9000). Most of the developed industrial countries – whose markets are the prime targets of Macedonian exporters – consider the non-fulfillment of these quality standards an indirect import ban. In most cases Macedonian goods do not meet ISO 9000 standards, which is above all due to outdated production technology and to the lack of institutionalization of the regulation and standardization of goods production.

The neutralizing of these deficiencies in the future will require giving over the 'dual product quality' concept. Producers will therefore have to focus on producing top-quality, high-standard goods regardless of the market they are intended for. Such a change of attitude can be brought about in a relatively short period of time. The introduction of new production equipment and technology ensuring top quality and high standards, however, will

[9] The balance is accounted for by non-specified goods.

require more financial resources and time – and this is a particular problem due to the low accumulation capacity of the business sector.

In addition to these measures, the metamorphosis of the Republic of Macedonia into an export-expansive country is to be brought about by the following institutional options and economic policy measures: the establishing of a bank for crediting export activities and issuing guaranties; the completion of an institutional network necessary for increasing exports (establishing an institution for measurement standardization and precious metals, for protecting industrial and intellectual property, for issuing certificates of quality, etc.); the improving of market competitiveness by creating information centers; integration into international development programmes and projects; the implementation of an organized strategy for the promotion of exports and emergence on international markets; the development of telecommunications and the infrastructure network, etc.

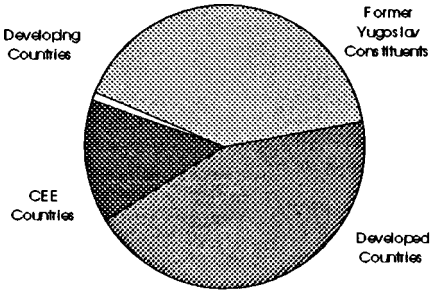
The acceleration of exports implies the improvement and maintenance of cost competitiveness compared to other countries. Improving competitiveness of the export sector is expected to occur primarily on the micro level, i.e. through the faster growth of labour productivity. This will result in a reduction of labour costs per item. On a macro-economic level, it is considered that the Republic of Macedonia will continue to occupy the position of a non-optimal monetary area with respect to EU member-states. This leaves open the possibility of utilizing the exchange rate as an instrument for shaping cost competitiveness and for balance of payment adjustment. The use of the exchange rate for the purpose of maintaining cost competitiveness, however, will be restricted in this period as it will continue to function as a fundamental nominal anchor within the economy.

In terms of regional composition of trade, the Republic of Macedonia appears to direct the main bulk of its export activities towards developed countries (with an export share of 53.7% and an import share of 49.6%). In this group the most important partners are the EU member-states, since 42.7% of all Macedonian exports are destined to these countries and 38.7% of all imports originate from the same. In terms of individual ratings within this group, Germany has proven to be the most significant trade partner of the Republic of Macedonia. This is followed by the relevant trade ties with Italy, and quite recently with Greece. At the same time economic crises and political instability within East European countries have generated the trend to re-direct Macedonia's trade endeavours from these countries to the markets of the former Yugoslav constituents. Thus in 1996 the share of trade activities involving former Yugoslav Republics amounted to 33.1% (in terms

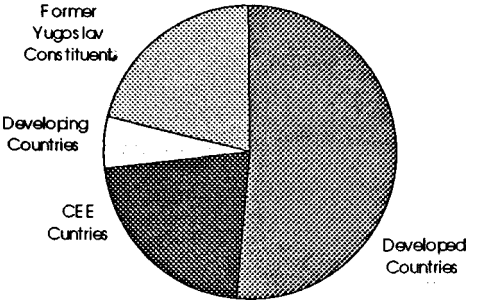
of exports), or 21.0% (imports). In this context, trade with FR Yugoslavia has acquired particular importance. Accordingly FR Yugoslavia has grown into Macedonia's most important trade partner in 1996, constituting 21.4% of its overall exports and 10.2% of its total goods import. This makes FR Yugoslavia one of the few countries, i.e. trading partners, with which Macedonia has managed to generate a surplus. In contrast to this the trade level with Eastern and Central European countries was reduced considerably in 1996, thus amounting to 11.8% of the overall exports and 21.1% of all imports of Macedonia.

Graph 6

Export Structure Based on Regional Composition



Import Structure Based on Regional Composition



Bearing in mind the basic orientation of the Republic of Macedonia as a European country, the future period should be marked by serious endeavours to achieve its expedient integration into West European unification. The ratification of a Trade and Cooperation Agreement with the EU is the first step in this direction. While awaiting the integration of Macedonia as an associate and eventually fully-fledged member of the EU, our country should also fulfill the standards for admission into the OECD – thus following the examples set by the Czech Republic, Hungary and Poland. Admission into this organisation is of key importance, as the OECD obliges its members to execute certain restructuring procedures (in the fields of the economy and legislation). This would expedite the process of achieving a level of economic performance in the Republic of Macedonia convergent with those of EU member-states. In this sense it would undoubtedly be of particular importance to the Republic of Macedonia to achieve the integration into the international goods and services market via admission into the WTO. Despite the

positive effects of the latter (e.g. the status of most privileged trade partners with all the member-states; the positive impact of international competition on the domestic market; the improving of product quality and standardization; the developing of more sophisticated forms of cooperation through joint ventures, production cooperation, technology and know-how transfer, etc.), caution is nevertheless to be advised. One should bear in mind that due to insufficient product quality and standardization levels with respect to Macedonian goods – in addition to all other unfavourable factors affecting the Macedonian economy in this past period – the initial stages of such an integration may lead to a short-term deterioration of the standing of the Macedonian export sector. Nevertheless, our admission into the WTO and the healthy competition this would provide in the long run, clearly embodies the only positive approach to improving the quality of Macedonian products, i..e. the inclusion of the Macedonian economy under equal terms in the competition on the international market.

In terms of creating an economic basis for Macedonia's integration within the EU, key relevance is being ascribed to the ratification of free trade area agreements with particular countries exhibiting a similar level of economic performance in order to boost foreign trade. Such treaties usually result in a solid trade volume. Thus in 1996 agreements outlining the suspending of customs duties and the gradual transformation into a completely free trade area regime were signed with Slovenia, Croatia and FR Yugoslavia. Similar agreements are to be ratified with Bulgaria and Albania (in their first stage), and later on with Greece, Turkey, Hungary and several other countries.

II. Balance of Payments

The disintegration of the single Yugoslav market, and the establishing of customs and economic barriers between economies designed to function as compatible components, represented a strong external shock to Macedonia, the most open market for goods and services from the remaining constituents.

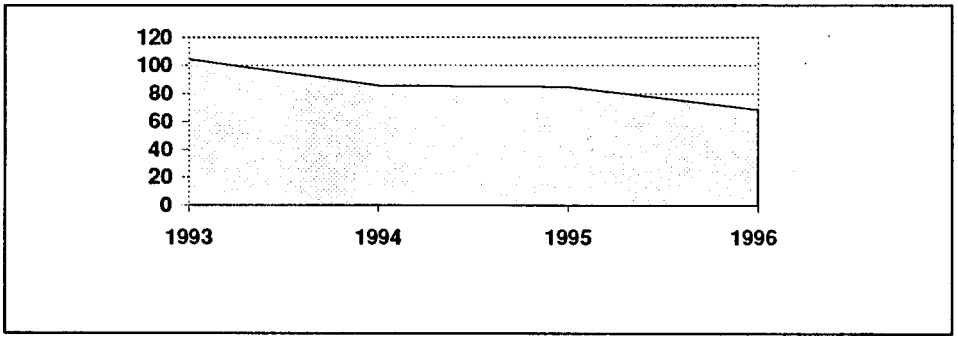
The altering of an economic strategy and the conquering of new markets, however, is a lengthy and laborious process. The pace at which Macedonia underwent this transformation towards an open, dynamic and competitive economy was additionally slowed down by the introduction of UN sanctions on FR Yugoslavia (in 1992), as well as by the imposing of the unilateral embargo on the flow of goods, services and human resources by the Republic

of Greece in 1994. Generally speaking, all these factors played an important role in curtailing the export of goods and services, generating high foreign trade deficits. The deficit in the current account of the Republic of Macedonia increasingly gained momentum, up to a total of 288 million dollars (7.8% of the GNP) by the end of 1996. Such a deficit in the current account is non-sustainable in the long run and certainly exceeds the inflow of international capital sustainable over a longer period of time. Another indicator of such unfavourable trends in the international trade sector is the extent to which imports are covered by exports; this figure dropped from 104.2% in 1993 to a mere 78.3% in the year 1996.

Graph 7

Level of import coverage by exports

(percentages)



Source: Annual Reports of the NBRM, various editions.

This large current account deficit is first and foremost to be ascribed to the low level of domestic saving, the high consumption and insufficient production of tradable goods, which would be competitive enough to succeed on the international market.

The long-term problem such a considerable deficit poses, inevitably entails the question of how it should be covered. This may be achieved via financing the imbalance, by means of an appropriate adjustment or by combining both these methods.

Over the past few years the covering of the balance-of-payments deficit has primarily been through its financing. In a situation where hard currency reserves are scarce this boils down to utilizing international capital in the form of unilateral transfers, and bi-/multi-lateral credits. During the initial years of monetary independence the adjustment strategy was also being employed, mainly through corrections of the exchange rate and import re-

duction. With the transition to a monetary strategy focusing on the targeting of the exchange rate (October 1995) and with the elimination of impacts incurred by external shocks, the role of the adjustment policy has been reduced considerably, while the financing through foreign capital flows has become the only approach to handling the current account deficit. It nevertheless has to be said that this has not generated a non-sustainable level of indebtedness. On 31st December 1996 the overall indebtedness of the Republic of Macedonia – accrued on the basis of middle- and long-term loans – amounted to 1 172.4 million US dollars. Thus, the Republic of Macedonia may be categorized as a medium-ranked debtor nation, with 31.8% of its GNP falling to external debts. The debt servicing ratio amounted to 11.5% of all exported goods and non-factor services in 1996. From a structural point of view, 74% of these debts are to official creditors, while 26% fall off to private creditors – headed by the London Club of Creditors. In compliance with the general agreement ratified in March 1997, the overall amount of debts of the Republic of Macedonia to commercial banks encompassed within the London Club of Creditors has been estimated at 228.7 million dollars. As regards debts to official creditors, 464.7 million dollars have been granted by multi-lateral entities and 402.3 million by bilateral creditors. The lion's share of these debts is to countries of the Paris Club of Creditors (324.7 million dollars), which have consented to the re-programming of these obligations.

The low level of domestic saving, contrasted to the necessity of intensively reviving the investment cycle, will continue to determine the import of foreign accumulation for financing the current account deficit in the next five to seven years. This means that the Republic of Macedonia will be facing deficits in the current account and the need for increasing its external indebtedness. The expected growth in domestic saving on the one hand, however, and the projected net export expansion on the other, will facilitate the gradual elimination of the current account deficit.

Taking into account the predicted intense growth rate as regards economic activity over the period 1997–2002 (at an average annual rate of 6.0%), and the commitment to generate this economic growth via net exports, the average annual growth rate of net exports needs to reach 16.5% over the coming five years. At the same time it is expected to achieve a surplus in the services sector as after 2002, due to available but not fully exploited tourism facilities and solid infrastructure and construction potential. The third leverage expected to support the establishment of equilibrium in the balance of payments are remittances from Macedonian nationals living and working abroad. The optimism exhibited with respect to this category

has been based upon the continuity of conducting a stable and transparent macro-economic policy, as well as upon the reinstatement of credibility of the financial system. Thus the deficit in the current account of the balance of payments of 288 million dollars (or 7,8% of the GNP) should be dynamically reduced over the next five years to approximately 110 million dollars, or 1.6% of the GNP, by the year 2002.

After 2002, the balance of the current account is expected to turn to surplus which will eventually be conducive to decreasing Macedonia's obligations towards foreign creditors in absolute terms (in relative terms the external indebtedness of Macedonia would be reduced even prior to 2002, on the basis of the expected dynamic GDP growth). Therefore the Republic of Macedonia would commence to reduce its foreign indebtedness upon acquiring the status of 'mature debtor', reflecting its current account surplus.

In order to facilitate the regular settling of exterior obligations in the future, it will be necessary to design a **medium-term debt management strategy**. The main objective of this strategy should to sustain of the credibility of international creditors as regards the vitality and potential of the Macedonian economy to settle its dues on a regular basis and optimization of the debt servicing with the stabilization and growth needs of the Macedonian economy. In this sense it is a prerequisite to normalize relations with the European Investment Bank – as the last international creditor with whom the Republic of Macedonia has not regulated its obligations – as soon as possible (e.g. 1997). The reaching of an agreement on re-programming debts to the club of commercial creditors, as well as the recent transformation of debts into state bonds which are to be listed with the Luxembourg Stock Exchange, represents a quality solution to this problem conducive to Macedonia's simultaneous integration into the international capital market. Considering the price of these debts on the secondary market, which is about 70 cents per dollar, the possibility of re-purchasing a share of the external debts through 'buybacks' deserves due attention.

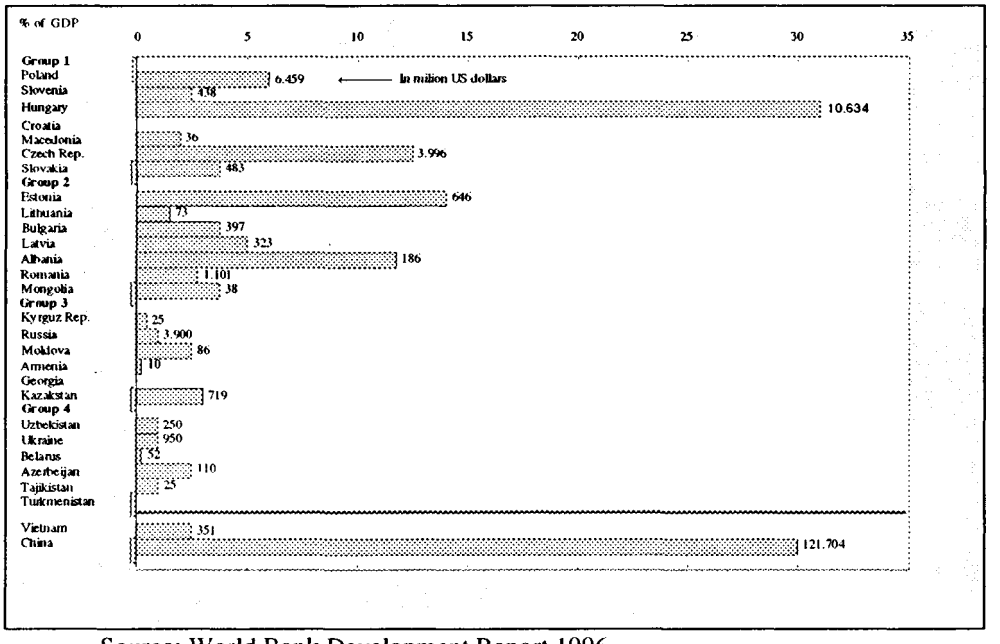
As regards the instruments for balance of payments adjustment, they should comprise a combination of expenditure-reducing policies and expenditure-switching policies. This implies the necessity to conduct a policy based on a market-determined, real exchange rate of the denar, since it is important not only from a balance-of-payments consideration but also from a development point of view. Namely, only in conditions marked by the existence of correct price signals does a rational allocation of resources within the domestic economy become feasible. If it is not the case, e.g. an appreciation of the national currency, may be conducive to serious distortions in terms of

production and the export-import structure, the transfer of economic entities from producing tradable to non-tradable goods and services, etc. The determination of the foreign exchange rate on the grounds of the interplay of supply and demand represents the most neutral approach to upholding price competitiveness on the international market as a basic prerequisite for the success of an export-oriented development strategy for the Republic of Macedonia.

As regards the forms of international capital inflow, so far the debt creating flows have been the most important and almost the unique source of foreign capital for the Republic of Macedonia. The share of direct international investments is utterly insignificant, which is above all due to the unstable political situation in the region and the low appeal of Macedonia as an economic area to international investors.

Graph 8

Cumulative inflow based on foreign direct investments in the Period 1989–1995



Source: World Bank Development Report 1996.

Attracting foreign capital in the form of direct investments is of particular importance to the Republic of Macedonia, not only from the aspect of complementing domestic investment potential without increasing indebted-

ness, but primarily because of the import of technology and know-how – usually closely linked to such investments. In this context several factors have a positive impact on creating a favourable climate to attract international investment into the Republic of Macedonia: a) the resolving of the crisis in the wider region; b) high price stability, in addition to a stable and transparent macro-economic policy; c) an inexpensive and qualified labour force as a source of comparative advantage for the Republic of Macedonia; and d) a stimulating and liberal legislative framework for international investors. Thus there are provisions granting tax credits to international investors in possession of more than 20% in shares of one enterprise, or in the case of reinvesting the profit into capital goods, etc. Complementary to this, the Customs Tariff Act provisions have been made for customs duty exemption in the case of imported equipment or fixed assets – provided the investor agrees to an investment scheme of at least five years and owns more than 20% of the shares of the company. This favourable codification of international investments is being completed by the Foreign Exchange Transactions Act, allowing the unrestricted transfer of funds to international investors. At the same time, the Republic of Macedonia is committed (as indeed it will remain in the future) to the elimination of comparative disadvantages with respect to other countries in transition. Such steps have already been initiated by encouraging the ratification of free trade areas agreements with certain countries, since these processes of regional integration are to amend for the deficiencies stemming from a small economic area by expanding the potential absorption capacity of the market. However, in order to complete the institutional and legislative framework of interest to potential foreign investors it has proven necessary to address several other issues, such as the low efficiency rate in terms of enforcement of financial claims and mortgages through the judicial system, the rights of transferring funds, etc.

Bearing in mind the need for capital on the one hand, and the small monetary area and limited potential of monetary instruments to sterilize capital inflow on the other, it seems that the optimal amount of foreign direct investment in the next five years would be about 100 million dollars per year. In this context it should be taken into account, however, that the adopting of a liberal policy towards foreign direct investments, in order to attract them, does not necessarily mean relying only on the interplay of the market forces. If the foreign direct investments are to contribute to the realization of the main domestic economic objectives then the liberal attitude towards them should be incorporated in the framework of a clearly defined strategy of global structural adjustment.

6. MODERNISATION OF THE PUBLIC SECTOR

I. Definition of the Public Sector

The strategy should involve the state's direct involvement in public companies, which are a significant sector in all national economies, particularly in the countries of Continental Europe.

In instances where public intervention is feasible it can take one of **three** possible forms:

- *management by public institutions (public companies, public enterprises...),*
- *controlled concession to companies in the private sector,*
- *regulation (legal provisions or subsidies).*

The specific nature of public companies is based on their definition as companies operating on the dividing line between the state and the market. They are impelled to obey two contradictory forces. The logic of the market, focused on the achievement of economic efficiency, and the logic of the state, aimed at a maximisation of public welfare and the **public interest**.

This is the essence of contemporary market economies where allocation of resources is made through a market mechanism and where the state reconciles, in different ways, possible conflicts between **market** and **public interest**.

The market actually affirms **competition** of private initiatives and interests as a supreme criterion and an ideal environment. Public interest is, as a rule, promoted in areas such as telecommunications, PTT, energy production and supply, air transport, railway transport. The products and services of these sectors constitute, because of their importance, the infrastructure of the whole economy and relate to the public at large.

A specific feature of the economy of the European continent seen as a whole is its fragmentation into national economies. In other words, national borders are at the same time economic borders, which makes it clear that the potent idea of open borders, actively promoted by the Brussels administration, will have a very strong impact on the national monopolies constituted in

the infrastructures of each individual country. The demolition of the myth of the traditional role of public utilities adds to the pressure exerted by competition. As in the past, when the existing public utilities infrastructure network was first established, today more than ever before – for we live in the era of information, new technologies and an increased and more urgent need for communication – the challenge of reform which these sectors face is both considerable and of great relevance.

The relation to be established between competition and the public interest, i.e. between the role of public companies as instruments for the promotion of public interest protected by national policies and the new definition and promotion of the public interest in the EU, is of particular importance to the Republic of Macedonia.

In this context, and in consequence of the trend towards the opening-up of markets on a European level, the *medium-* and *long-term* situation of the monopolies in the public sector of the Republic of Macedonia will certainly be influenced by the size and competitiveness of foreign companies in these fields. This consideration justifies the need for a new concept of industrial policy, parallel to the specific role the public companies have had to date.

Medium- and, particularly, *long-term* planning must therefore define a **strategy for development** which will accept such changes as are currently taking place and which will affect the extent and the development orientation of the public sector in the Republic of Macedonia.

The scope and the forms of the public sector will be determined by the *inherited structures of ownership and organisation* in the Republic of Macedonia, and by the *limiting possibilities of the domestic accumulation* concerning the development of potential competition in the infrastructure branches operated by monopolistic public companies. The public sector, too, will be situated in this area between *the need for* and the *possibility of* protection of the public interest and the need for competition in areas and branches where it is possible.

The planning of a national strategy should respect the orientation towards European integration and, in line with this orientation, the development of the national economy should be directed towards future convergence with the regulations of the EU.

The construction of the *strategy for the shaping of the public sector* in the Republic of Macedonia must respect the current trend, which is marked by:

♦ *the current globalization of the public utilities market, or, which is more important to us, at least its Europeanisation;*

♦ *the adoption of new technology which makes competition in the sphere of natural monopoly possible;*

♦ *the subjection of the public sector to a real deregulation;*

♦ *an evolution in the behaviour of the consumers of public sector services.*

II. Market Structure and the Legal Regulation of the Public Sector

Studies of the public sector's market structure in the **infrastructure network** of the Republic of Macedonia (postal services, telegraph, telecommunications, energy supply network, railway, road and air transport, etc.) have shown a dominant presence of **public ownership and monopoly.**

Under the pressure of the new theoretical and practical possibilities of the involvement of competition, the companies operating in these spheres have been compelled to transform themselves. The spheres which because of their technological characteristics remain a natural monopoly will have to be redefined, as well as those where competition is possible.. This process should necessarily include *restructuring of their basic funds, their strategies, internal organisation, the variety and quality of the products and services they offer, as well as their business culture.*

In the forthcoming period the public sector's ***inherited structure of ownership*** and ***structure of organisation*** will be changing under the pressure of private investment in certain attractive sectors (e.g. telecommunications) where involvement of foreign companies can also be expected.

Stimulating regulations can make it possible for the modest domestic accumulation, which is not in a position to engage in large investments, to find its own interests, particularly in the sphere of local communal and transport services.

As this sphere of activity has been subjected to strong waves of privatisation in the course of the past decade and a half, a need has been affirmed for **legal regulation** of this sector. Regulation should in fact represent a flexible long-term agreement between producers and consumers, ensured by the state administration (through its agencies and commissions).

The legal regulation of these spheres, which are most often dominated by natural monopolies, can be accomplished mainly in two ways:

- ***regulation of prices or regulation of the profit rate,*** and
- ***regulation of access.***

Price regulation is a classic instrument for the protection of consumers' interests in the case of a monopoly, regardless of whether it is a private or a public one. It actually emphasises the mission of the state in the protection of the public interest against the interest of the company operating in a given sphere.

The second method of regulation ensures access to the market. With the exception of specifically stipulated instances the intention of our economy would be towards opening up access for capital in the competitive phases of the **natural monopoly**, in accordance with the theory on competitive markets. In the case of Macedonia this is particularly applicable to the sectors of air transport, telecommunications, energy supply, etc. This measure should result in reduced prices of services and products, in the interest of the end consumers.

The regulation will be carried out on two levels – on the **national** and on a **local level** – depending on whether the company is of local (communal hygiene, local roads, water-supply system...) or of regional significance, as in the case of regional water-supply systems. The regulation of the large infrastructure sectors such as PTT, energy supply, air transport, or railways, will remain in the domain of the state...

Another basis justifying regulation by the state, besides natural monopoly, is the existence of the effect of **external factors** in the infrastructure spheres. This would be a new subject of regulation in the Republic of Macedonia and it will be necessary to accept the experience of certain developed economies.

Restrictions and **price control policy** will remain as **short-term** objectives. This is mainly due to two reasons:

- *under the pressure of competition it is impossible to reduce current prices; and*
- *prices in these sectors strongly influence the other sectors.*

As a **medium- and long-term** measure, opening up access for private capital will make it possible to establish competitive prices, particularly in the sphere of communal services and in certain types of transportation.

III. Management in the Public Sector

The **management** of companies in the public sector is defined by the Law on Public Companies. This Law stipulates the rights and the obligations

of the management bodies (managerial board, financial-control board, and director). *The promotion and protection of public interest* will be carried out by the founder (the Government of the Republic of Macedonia, the municipalities or the city of Skopje).

The specific nature of their operation imposes on public companies the duty to perform their operation continuously and incessantly. In certain cases the founders (the Republic, the municipalities or the city of Skopje) can impose on the companies obligations which bring in no profit, and in such cases the founders will also be obliged to compensate for the expenses incurred by the obligations imposed.

A large number of the public companies will continue their operation in the circumstances of competition with the same financial and accounting standards valid for other trading companies. A feature characteristic of public companies will be their *dual nature*. On the one hand they will remain liable to the same laws of private rights, and on the other the promotion of the public interest will demand that public companies be subjected to *state surveillance and control.*

With regard to the profit realised from the operation of the public companies, though it can be placed at the disposal of the founder (the Republic, the municipalities or the city of Skopje) the intention should be upheld of supporting the financial independence of the public companies and of developing their market competition.

The existence of public companies in certain spheres of the economy of the Republic of Macedonia should ensure:

- technical and technological uniformity of the system, which will also lead to a more efficient organisation of the operation in this sphere;
- co-ordination between their development and the development of the economy as a whole; and
- protection and advancement of property of public interest.

Since the public sector will remain an influential part of the Macedonian economy, specific *training of personnel* to manage the public sector in the Republic is imperative.

The opening-up of new possibilities and the logic of investment in the public sector require legal (regulatory) support as a framework for the promotion of projects available to domestic and foreign investors (Public-private partnerships). On the basis of a *permit* for the performance of certain activities of public interest by juridical and physical persons, it is possible for the private sector to dynamically penetrate areas classically covered by public

companies. This would be an efficient way of replacing the large and inflexible public companies with private companies. The significance of this process imposes the need for the establishment of an institution (agency, institute, commission) which would develop this line of co-operation. Thus co-ordination between state interests and the need for transparency of projects attractive to private investors would be ensured.

7. ADJUSTMENT OF THE SOCIAL SECURITY SYSTEM

I. Introduction

In the first years of post-socialism, along with the economic and political problems, social problems, have emerged as well. There has been a fall in the standard of living, social insecurity, as a consequence of greater unemployment; changes have been made in the schemes of social insurance; an attempt is being made to introduce market elements, etc. Thus, the current conditions in the economic sphere have contributed to the disintegration of the stratified structure of the society in the direction of the impoverishment of great layers of the population and the quick acquisition of wealth by a small number of the population. This is indicated by data on the more and more drastic reduction in the purchasing power of a greater part of the population.

The reduction and irregular payment of wages has led to limitations of health care, a reduction of means for the pension fund and disability insurance, irregular payments and a reduction of the number of users of children's supplement, and certain limitations of education and other facilities which were free before. The social position of a great part of the population has also deteriorated because of the low level of economic development, because of the much too large number of pensioners, because of the small income of a large number of households, etc.

Bearing in mind the problems listed, it will be necessary to achieve an improvement in the social situation of the population at the same time as a reconstruction of the economic system on a modern footing. It is necessary, therefore, to round out and pass systemic laws and they must be adjusted, compatible and harmonised with those of modern societies, especially in the sphere of health protection, in the pension and disability insurance system and in employment.

The reform of the social system could in turn influence the economic footing of the country, the scope and structure of the population and its purchasing power. The feedback influence of the social policy upon the material

basis and the economic policy is in correlation with the degree of the economic development of the country.

If the economic reforms of the Republic of Macedonia are successfully carried out, it is likely that they will generate a better social position of the population. However, in order for the economic system to be able to support such a social policy without creating an economic imbalance, it will have to mobilise adequate sources of finance (public and private funds). In the concept and implementation of a multi-stage system of social insurance, the risk of a deficit of funds should be avoided. In the forthcoming years it is of special importance to realise participation by the users of health and social protection. International experiences show that countries which have substantial means from private funds available usually also have a high degree of social security and social protection.

The existing structure of the population must be borne in mind when defining social protection in the development strategy. This aspect is important for the social development of the Republic of Macedonia. The structure of the population, and especially its age structure, health condition, disability and unemployment, have a direct influence on the direction of the social protection.

There is a tendency in the Republic of Macedonia towards a decrease in the percentage of young people up to 20 years old, and an increase of the percentage of persons over 65 years of age. This factor is important because the problem of "ageing of the population" lies not only in the increase of costs for social protection, help, medical care, but also in education, work force, quality of life, stability of the family, etc.

II. Social Security during Unemployment

An especially hard social problem in the system of social security in the period of transition is unemployment. Because of bankruptcy and liquidation, and privatisation of enterprises, and because of structural adjustment of the economy, a great number of people have been left without a job. The true situation of persons seeking work, and who were previously employed, and the provision of material rights can be better illustrated by means of the following indicators:

In March 1996 the number of persons seeking work was 60,582, and their qualification structure was the following: unqualified 41.4%, half qualified and with elementary education 10.5%, qualified and highly qualified 22.5%, with secondary education 20.0% and with higher and further educa-

tion 5.6%. The number of persons seeking work in 1996, and who had been previously employed, had increased 2.25 times compared with 1990.

Table 7

Structure of payment of material rights for unemployment cases in 1996

Users	%
1. Workers from bankrupt firms	54.94
2. Seasonal workers	4.43
3. Technological surplus	10.25
4. Disability compensation	0.02
5. Health protection	24.74
6. Workers from firms bankrupt for the second time	3.79
7. Vocational training	1.65
8. Severance payment	0.18

It is understandable that unemployment creates enormous problems not only for the social security system, but also for economic life in general.

The current system providing social security for those who have lost their jobs has been termed "generous" in terms of the length of time for which this right lasts.

– Not all cases of unemployment need to be covered by social security. The system providing compensation and remuneration for various expenses should cover individuals who are jobless against their will.

Due to the deficit in compensation funds for the unemployed, the social security system for individuals laid off work should be adjusted to the actual situation and made compatible with market economy practice, with the individuals' right to compensation being based on the length of their previous service.

Social security for the unemployed will have to affect the implementation and advancement of the following rights:

1. *Compensation*, for unemployed persons who have been previously employed. The length of time for which this right is met depends on the person's previous span of service.

2. *Preparation for employment and counselling on professional orientation,* assistance for the unemployed which should offer information on the employment situation in various occupations, the demand for certain types of work both in the economic and non-economic fields, and the prospects of employment. This right should include possibilities of technical instruction, vocational re-training, or additional training, thus enabling the unemployed to acquire and/or supplement their knowledge and skills with a view to future employment.

3. *The right to health protection, pension and disability insurance*, a right providing compulsory *health* insurance for the unemployed for basic health care.

4. *Remuneration for travel and other expenses during removal*, applying to unemployed individuals and their families, for whom the Employment Bureau has found work in another place.

5. *Employment of disabled persons.*

At this stage, a new Employment and Security During Unemployment Law ought to be prepared, in order to establish a relevant normative base for the implementation of adequate principles of insurance in case of unemployment, determining the institutions which should mediate for employment and forms which would provide swift and good information.

*

– In the future, apart from the existing public institutions (Employment Bureaus) in the Republic of Macedonia, employment mediation should be performed by privately-owned agencies as well..

Financial security funds for the unemployed will continue to be provided from: contributions from employees, from employers, the state budget, and other sources.

III. The Health Care System

After the country's independence was established, the health care system was forced into a state of *ad hoc adjustment* to the dramatic fall in public health finances, whose real fall from 1991 to 1993 amounted to approximately 40%. This adjustment was not optimal. It was based upon a linear reduction of expenditures (on medicaments, vaccines, medical materials, equipment maintenance, wages for employees), without any efforts being made towards a restructuring of the system.

As a result of this, there was stagnation in development, and the quality of certain health care services became worse.

The allocation for health care (between 8–10% of the GDP), compared with the more developed countries is relatively high, while the allocation for medicaments, approximately 30% of the GDP, is among the higher ones in the world. The degree of utilisation of medical capacities (approximately 59%) is relatively low and pressure exists on the tertiary health care capacities, which in future should be directed to primary health care, together with the resources. The system suffers from mismanagement at all levels. Management practically does not exist in the public health care system. Motivation of the employees in public health care is relatively low, bearing in mind the low wages and the problems with their regular payment.

One of the most important issues of the strategy for the health sector is the separation of the role of the state from that of the market in the financing and supply of health services. The theoretical and practical aspects of the role of the state in this field should be taken into account in any qualified debate on possible privatisation of certain segments of the complex system of health protection.. The belief that the state can achieve better results than the market in the field of health protection is based upon several reasons: the need to reduce poverty; the characteristics of the majority of the health services being public assets and the presence of externalities; and the failures of the market concerning health care and health insurance.

The market has developed instruments of *insurance* for almost all health risks. Yet the market for health insurance is burdened by numerous weaknesses which contribute to serious disruption of the functioning of market principles in the field of the public health service, with far-reaching consequences.

The following ensues:

- first, the state must supply conditions for the improvement of public health, which most often have the characteristics of public assets, or assets with a substantial external effect (immunisation);
- second, the inclusion of health care as a part of the strategy for fighting against poverty justifies financing a package of minimum health protection for the poor by the state; and
- third, market failures are a foundation for regulation of health activities and activities on the insurance market by the state.

The state can greatly improve the functioning of the health services market by providing information, and selling it as a public asset, on costs, quality and results of certain types of health protection.

The basics of the strategy for the health care system reform have been determined by the World Bank approved credit, amounting to 16.9 million dollars, under IDA conditions (35 years pay-back period, with a 10 years grace period) for the realisation of the Project for Transition of the Health Sector and according to the set terms of this arrangement.

The primary goal of the reform is to **improve the health** of citizens within the limits of the health care funds.

– In order to provide basic health care for the entire population, and because of the necessity for state intervention in this field, the Health Insurance Fund will still be the major source of funding for the Macedonian health care system in the future. The funds, as is the case now, will be collected by means of a special contribution, the rate of which is determined by Parliament. The contribution will be paid by employers, the Pension and Disability Insurance Fund (for pensioners), and by the Employment Bureau (for individuals looking for work).

For the sake of rationalising the use of health care services and medicaments, it is necessary to retain participation by service-users in order to cover the expenses.

Privately-owned health insurance funds should be set up to cover expenses for services outside the basic health care package provided by the Health Insurance Fund, that is, for what is called *discretionary* and above-standard health care that some individuals may opt for. The state should control the work of these funds in order to avoid certain weaknesses in their work, known to world-wide practice (excluding high risk individuals from insurance, non-recognition of expenses incurred on the basis of what are termed "previous conditions", etc.).

– It is necessary to plan in order to overcome the known negative effects occurring when funding comes from the Health Insurance Fund, particularly to prevent the "third party" effect, which leads to an explosion of expenses through what is known as service demand prompted by offer.

In purchasing medical equipment and pharmaceutical products, procedures recommended in the short-term programme for the health care sector reform should be followed.

– State regulation and control are necessary in order to guarantee that the quality of standards in health care services is observed, that financial and other abuses are prevented, that all insurance holders have equal availability of services, and that medical information be handled with discretion.

IV. The Pension and Disability Insurance System

The Macedonian Pension and Disability Insurance Fund has been having deficit problems for a long time now. In fact, the very term "fund" has proved inadequate, as Macedonia, like most countries in the world, has a pension and disability insurance system based on the *pay as you go* (PAYG) principle. In the next several years capitalisation of the pension fund is expected, and dividends will start to be paid out on priority shares which were transferred to the Fund in the process of privatisation. The practice in the Republic of Macedonia in the past several decades, and even now, is still such that legal regulations are often changed, new grades are determined for the pension basis, the work experience and the age limit for a pension.

– The problem of payment of pensions must be overcome by providing a balance between revenues and expenditures. This can be achieved by intensifying the early retirement and disability pension criteria, on the one hand, as well as by a more rigorous contributions payment policy on the other.

A clear separation must be made between the contributions from the workers and those from the employers, and the part of the contributions paid by the workers must be clearly stated in the pay statement.

The system needs administrative reform in order to reduce administrative expenses.

Over a longer period (in the next 12–15 years, with a sub-period of 5–7 years), Macedonia will need to pass over to a *three-level* pension and disability insurance system.

The first level will be the *public system*, funded by means of a mandatory contribution (significantly lower than the current one) paid to the Disability Insurance and Pension Fund. After the first sub-period is over, by 2002, a *minimum pension* should be provided, the amount of which should be the same for all insurance holders.

The second level is *compulsory additional pension insurance*. This will include contribution payments made both to the public fund, and to private pension funds. The latter will gradually become superior because of being more efficient in investing the funds and providing higher rates of return.

The third level is *voluntary pension insurance* with private pension funds, including pension plans that will be offered by employers. The benefits of these plans will be previously determined. This is why they carry the name of defined benefits funds.

The transitional period and the manner in which the transition is carried out from the current system to the multi-level system of pension and disability insurance is of crucial importance for the construction of the new system. The process of "tightening" the public fund could go along with the spreading of private pension schemes.

V. Social Security for Children

It is first necessary, in this sphere, to overcome the problems of the payment of children's allowances by means of providing a balance of the revenues with expenditures. Then, each child must be provided with a standard of living which corresponds to the child's physical, mental, moral and social development.

The forms of children's social security (children's allowance, special allowance, a package of basic equipment for the newly-born) will need to be more strongly affirmed and to have a more comprehensive content in the future.

In the future, the funds for the financing of children's social security will rely largely on the state budget, although efforts must be made to provide additional financial sources (such as non-governmental foundations, enterprises, etc.).

VI. Defining the Poverty Line

One of the difficult problems of social policy is the fact that the total income of a large number of families has decreased. Thus, the situation of the standard of living and joint expenditure on welfare services is unsatisfactory. Because subsidies have been revoked, the increase in prices and the reduction of wages have caused the standard of living to fall by approximately 40% (1991–1996).

In the Republic of Macedonia approximately 46% of the household budget is spent on average on food, while in the countries of the European union this amounts to 22%, and in the USA 16%.

Approximately 10% of the total number of households in the Republic of Macedonia are social assistance beneficiaries (the situation in 1996). Because of the limited possibilities in this country, social assistance is determined as amounting to 50% of the determined poverty-line (basis) for the first adult, and for the other members of the family the following gradation is used:

- for the second adult member 60%
- for the third adult member 45%
- for the fourth adult member 30%
- for the fifth adult member 15%
- for the first child 40%
- for the second child 30%
- for the third and fourth 20%

As an illustration, the basics for the socially threatened sector of the population in 1996 in urban environments amounted to 1,812 Denars per month (67 DEM) and in rural environments 1,482 Denars (59 DEM) per household member.

Poverty is considered as very serious, and it should be fought against. It is necessary for each individual or household to provide a necessary minimal income, which will make a decent standard of living possible. In order to realise this it is necessary to determine the "poverty line".

Generally, poverty is considered a condition where the basic needs are not appropriately satisfied. Households are considered poverty-stricken if they lack resources for food, activities, living conditions, requirements which are usually largely supported and approved by the society to which these people belong. Their available resources are significantly lower than those of an average individual or household and they are set outside everyday living patterns, activities and routine. Ideally, an assessment of poverty can be made if a complete picture of the resources available to households is obtained.

VII. Social Security Resources

The Republic of Macedonia suffers from a major discrepancy between its actual financial capabilities and the needs which must be satisfied through social policy measures.

It has, therefore, been proposed that whenever the amount of funding is to be determined, first the following must be defined: the source of funding, the method of horizontal distribution of resources to the beneficiaries, and a vertical distribution of resources from individuals who earn more to those with low incomes, or the materially threatened.

In the forthcoming period, therefore, one should aim at setting aside approximately the same amounts which have been allotted so far, with certain adjustments of priorities.

The percentage of funds for social security and protection as part of the gross national product (GNP) can remain at the current rate of somewhat over 20%.

When the market begins to function normally and the economic situation of the country improves, the role of the state must be reduced and the participation of the citizens in creating social security funds must become greater.

In the concept and implementation of a social policy it is necessary to maintain and to confirm the basic principles of the solidarity and mutuality of the citizens with the aim of preventing the causes which contribute to the creation of social problems and their consequences, as well as a curative protection in the form of care, insurance and security.

Social policy should be seen as a factor of total development. It should balance the relations between economic and social objectives so as not to hinder development but to be its catalyst. Even though in its strict meaning it is a certain burdening of the social product, the social policy should point out those relationships which will not impede but develop a market economy.

8. EDUCATION, SCIENCE AND HEALTH IN DEVELOPMENT

I. Education

Situation in Children's Development and Education

It is a theoretically determined and empirically proven fact that all achievements of the human mind in the shape of new inventions, materials and technologies, which serve as the basis for contemporary development, are in some way connected with the development of the young, with education and with science. The relevance of education is being underlined in view of the fact that the education process improves the qualitative features of human resources, which have a central position within the matrix of determinants of development.

The successful implementation of the complex system and the objectives of education is determined by the functioning of all its segments from the pre-school level up to the continuing education of adults. Though global situations and changes undoubtedly affect the educational system in its entirety, the concrete situation nevertheless differs within the various sectors of this system.

Pre-school education – a stage of key importance in the learning, intellectual, emotional and social development of children – is particularly burdened by the lack of teaching material and by the utilization of methods incompatible with the individual development of children. This implies the neeed for certain essential changes on the planes of content, procedure and methodologies.

Positive trends such as the broad coverage of generations, the equal coverage and treatment of girls and boys alike, teaching ethnic minorities in their native language, the provision of qualified teaching staff, textbooks, ancillary literature, visual aids, etc. may be observed within the elementary sector. New syllabuses and curriculums are introducing significant changes for the better in this basic segment of education. These are in tune with the

current situation and trends in this sphere, and in tune with the requirements of the times that lie ahead.

To date the system of secondary education has been marked by certain reforms, but some unsatisfactory situations have also been registered, such as an unsatisfactory regionalisation of the school network, a widespread diversification of professions and profiles, a relatively low level of modern educational equipment, a delay in updating teaching methodology, etc.

Within the higher education system there is an explicit need to follow contemporary trends and the positive experience of developed, above all western European, countries; adapting highly-educated profiles to contemporary demands; updating teaching curricula and syllabuses; creating room for competitiveness among higher education institutions, and among their teaching and associated staff; the upgrading of educational techniques and technology; and the establishing of an acceptable relation between the constitutionally guaranteed right to autonomy of the universities and the implementation of the public interest of the state in this sphere.

The changes on a global level have implications for the structure of qualifications; the types of professions and profiles; the outdatedness of knowledge and technological processes; the need for new forms of literacy and a polyphonic structure, for on-going professional improvement, requalification and further qualifications; and the adoption of new paradigms as regards a healthy lifestyle and environmental protection, etc. ***All this imposes the need for continuing education and for a developed system of adult education.*** In this context it is a prerequisite to respect the specific features of adult education on the programmatic, technological and organisational planes.

Education has always been granted a relatively high priority in the Republic of Macedonia, both in the previous economic system and thenceforth. This may be illustrated by the volume of public resources set aside for education, both in comparison to developed countries and those of the region. (The Republic of Macedonia allocated circa 6.5% of its GDP to education in 1995.)

Yet there remains the question of whether this significant volume of resources, in terms of its structure and according to the differing levels of education, is appropriate to the yield that is to be expected from investment in specific profiles and in education as a whole.

With the entry of the Republic of Macedonia into the process of transition the problems in the field of education have become more acute.

Transitional recession not only brought about decreased demand for certain educational profiles, but also created a substantial structural disproportion between the output of the education system and the demands of the labour market. Recession, in the sectors of the construction business and the processing industry in particular, has led to a significantly lower demand for high-school and university educated personnel in the technical, technological and mechanical engineering branches. It has also entailed a significant level of under-use of facilities i.e. of both the physical infrastructure and the teaching staff employed in these areas of study within secondary and higher education.

This incongruity, however, was merely an acute manifestation of deeply rooted structural problems in education. On the one hand, the inherited education structure had been tailored around an industrial sector dominated by capital-intensive activities located in urban centres. On the other hand, the imperative need for structural change facing the Macedonian economy demanded an increased participation of service activities and an intensive introduction of information and communications technologies in addition to a partial rehabilitation of, e.g., structural innovations in, agricultural production and the agricultural industry.

Global Orientations in Education

The following basic orientations may be outlined in relation to the advancement of the education system in line with the priority needs for staff personnel appropriate to the expected economic and social development and modernization:

1. The further democratization of child development and education in terms of:

– creating preconditions for the optimal development of each subject in relation to individual potential, abilities and interests, with particular emphasis on gifted children;

– providing equal educational opportunities, irrespective of gender, social and material status, religious or ethnic affiliation;

– decentralization of the management system within the educational sector, increasing the say of local government authorities, increasing the participation of parents and other interested citizens, teachers, pupils and students in the governing structures of institutions.

2. Increasing the level of formal education of children and adults by:

– increasing the coverage of the population within regular education, and education of the entire population at all educational levels and through a

developed system of adult education;

– increasing the average level of education of the population between the ages of 24 and 65;

– improving the average level of education among employees by motivating and sustaining the efforts made by employees to accept an appropriate educational model.

3. The improvement of the quality and efficiency of child development and education at all levels.

This strategic issue in the development of child development and education in the Republic of Macedonia means the setting of standards measuring the quality and efficiency of pre-school development and education.

4. Optimizing the networks of secondary and further and higher education suitable to the demands of the current and future development of the country.

5. Compatibility of education and child development and education with the socio-economic development of the country.

This is one of those issues which are always relevant, requiring above all the accommodation of staff training to suit the needs and projections of the economic and technical /technological development of the country.

6. Discovering and eliminating conditions and elements producing functional illiteracy.

Functional illiteracy should be seen as a deficiency of knowledge and skills for the successful resolving of production, communication and social functions at the given stage of a person's life. Such a shortcoming places many people in isolation and increases the number of unemployed individuals. Functionally illiterate people are capable of reading and writing, but inapt in following professional innovations unless given additional training.

7. Increasing the level and quality of teacher-training through, among other things, providing in-service training of existing staff and through the establishing of a Centre for the ongoing further training of teachers.

8. Educating for work and the application of knowledge.

This implies a more practical education for pupils and students, to prepare them for entering professional life.

Training for a profession and for the future utilization of knowledge in practice is one of the weakest links in the chain of education, especially at the secondary and higher levels. To that end educational institutions need to

be equipped with adequate modern laboratories, workshops, practice facilities, and information, computer and multi-media centres, as well as being linked to the direct production sector and other appropriate activities.

II. Scientific Research Activities

The State of Scientific Research

Despite the ever-increasing realization that science and scientific research occupy a prominent position within the matrix of development determinants, in reality both are faced with numerous restrictions of an institutional, staffing and material nature in the matter of effectively achieving their mission as a *spiritus movens* of development.

An analysis of the state of scientific research indicates a lagging behind in the development of creative potential, a relatively small number of research scientists – particularly younger ones – and their unsatisfactory distribution among scientific disciplines and institutions. The seriously reduced financial input in recent years has also had an unfavourable impact on scientific research, thereby creating an adequate infrastructure for the swift transfer of scientific achievements from the developed scientific research centres, and on the valorization of scientific work.

The extent of integration into the international scientific community is still limited, and the access to additional financial resources is extremely modest, which results in a lack of influence on the competitiveness of our science and scientific personnel.

Another weakness is the insufficient coordination with the economy where, due to financial exhaustion and the current problems, there is an absence of any marked interest in scientific achievements as a necessary basis for accelerating development and an increase in market efficiency.

What is alarming is the small number of scientific experts engaged in the research and development departments in the business sector of companies. In the grave overall circumstances of the economy, exacerbated by the processes of ownership transformation and restructuring, there is a lack of motivation among the existing managerial teams to invest in R&D activities.

The structure of scientific research between 1993 and 1995 is shown in Table 8 according to types of research.

Table 8

Completed Research

	Fundamental			Applied			Development		
	1993	1994	1995	1993	1994	1995	1993	1994	1995
Independent scientific research organisations	44	70	34	74	72	117	19	20	32
Reserach & Development units within businesses and non-economic structures	–	3	1	45	31	25	56	40	39

Source: The Annual Statistics Report of the Republic of Macedonia – 1996, The National Statistics Office of the Republic of Macedonia, Skopje.

Development Orientations in Scientific Research

In determining priority issues and the designing of a global structure of fundamental, applied and developmental research activities, one should start out from the relevance of the following criteria:

- world-wide scientific achievements in the relevant fields;
- the level of development of the relevant scientific discipline and facilities (in terms of organization, staff resources, financing, infrastructure, etc.) available for the conducting of scientific research;
- expected results and their segmental and overall significance to development;
- the potential as regards direct and indirect application of results obtained;
- the potential for forming of research science personnel and their advancement through research projects;
- the inter-disciplinary and complex nature of such research projects;
- the involvement of domestic and foreign scientific institutions in scientific research projects and the possibility of the transfer of knowledge.

The issue of how to structure scientific research is a very complex one, especially in the endeavour to establish an optimum correlation between possibilities (of producing our own, or of transferring, scientific data) and the need for new scientific knowledge, particularly in new scientific branches and their application above all in propulsive sectors which would boost the overall dynamics of the development of the country directly or indirectly.

With respect to scientific research, marked emphasis will be placed on research projects conducted by R&D departments within companies and other legal entities, because of their potential as regards the application of scientific knowledge in addressing concrete current and development problems.

Scientific Research Personnel

The number, growth rate and structure of research scientists are among the most significant indicators for measuring the level of development and the development potential of a country. It is well known that recently the most developed countries have been doubling their number of research scientists over a period of less than ten years.

Based on the projection of the other elements within the scientific research system – in addition to overall development trends – an annual growth rate of 4.4% has been calculated as regards the number of research scientists. This means that the 1994 ratio of 9 scientists to 10,000 residents would be increased to 18 in the year 2020 (see Table 9).

Table 9

Projection of the Number of Research Scientists in the Republic of Macedonia up to the Year 2020

	1985	1990	1994	2005	2020	Average growth rate 1994–2020
Total number of research scientists	1.392	1.684	1.725	2.800	5.400	4.4%
Share in GDP of budget funds for scientific research	0.25	0.14	0.18*	1.5	2.5	11.2%

* The share has been calculated on the basis of GDP estimates, including data for 1993 at current prices.

In order to improve the functional and institutional structure of research scientist personnel, it is a prerequisite to establish a system of inter-institutional and inter-sector mobility. The largest growth rate of research scientists should be achieved in R&D units within the economy. As regards scientific fields, it is necessary to sustain a more dynamic growth of research personnel development in the technical, technological and bio-technical sciences.

It is self-evident that the achievement of these orientations presupposes, in addition to the instigation of development after a lengthy, exhausting recession, an adequately concieved and implemented policy of creating research scientists. Another prerequisite is the generating of a social climate which will motivate young people in particular to become involved in scientific work, while at the same time tightening the criteria for selection and elimination. The training of highly educated staff through more complex and organized forms of scientific research in both domestic and foreign centres is essential where favourable condiditions for this exist. This is particularly the case for those to be engaged in the projected long-term development of the country. We should also mention changes in the education system as regards post-graduate and doctoral studies. Here particular emphasis should be placed on studying the methods of scientific research and the practical involvement of personnel with research skills through their inclusion in scientific research projects.

Scientific Research Infrastructure

The current situation (though varying slightly in each scientific branch) of the scientific research infrastructure is less than satisfactory. It does not provide for the application of up-to-date research techniques and methods. Thus the following interventions are proposed as priorities:

- providing institutions with the necessary research equipment, particularly hardware and software equipment;
- procuring state-of-the art equipment for basic research, especially in the fields of medical, mathematical and bio-technical sciences;
- creating experimental bases, such as testing stations, economic entities, animal and plant collections, etc.;
- the integration into domestic and international information systems, for a timely updating on scientific, technological and other information;
- the procurement and expanding of reference library information.

While stressing the need for increasing funds invested in the scientific research infrastructure, one should also bear in mind the need for a rational exploitation of the existing infrastructure, especially that of equipment.

Financing Scientific Research

A multitude of factors (including the treatment of investments in science as expenditure) have led to the extremely reduced financial support for

scientific research. In developed countries funds allocated to the science sector exceed 2% of GDP, and furthermore they are considered as investments in development. In the Republic of Macedonia the financing of this sector is at a low level, with a downward trend. Thus in 1965 around 0.76% of GDP was allocated to science; in 1975 this decreased to 0.50% and over the past few years science has been the beneficiary of only 0.30% of GDP. Of this 50% has been allocated from the budget via the Ministry of Science while the remainder has been provided by state institutions, economic enterprises and other entities commissioning scientific research.

In order to procure a critical mass of financial means to overcome the above-mentioned problems in scientific research, funding will have to be intensified over the next few years to reach the level of 1.5% – and then subsequently the level of 2.5% of the GDP by 2020. In this, in the main, scientific research of public interest would be financed from the budget, while applicative and development projects for a known or interested user would be supported by funds from other sources, above all from the economic sector.

III. Health Sector Development

The State of the Health System and Health Insurance

♦ The regulatory and institutional framework for the existing system of health care and health insurance was established in 1991.

The most important guideline for the new systemic measures is the defining of ownership status in the health sector. Therefore existing health care institutions have acquired the status of public (state) institutions, organisationally structured in a pyramid-shaped system (preventive and primary, secondary and tertiary health care).

What has also been created is a systemic development potential for private health care in all domains of medicine, dental medicine and pharmacy. So far this possibility has been predominantly effectuated via established institutions of the health centre or polyclinic type.

The public health system consists of 77 public health facilities employing 23,612 medical and other workers. Facilities are relatively new and purpose-built. The medical equipment is mainly outdated (with an over 70% depreciation level).

The comparatively easy conditions for engaging in providing medical services in the private sector, in order to encourage the investment of private capital and the employment of highly-qualified personnel of all educational

levels in this sector, have already borne fruit. The growing private sector consists of 877, mainly small, surgeries and pharmacies (as of April 1996).

The right to health care is realised through compulsory and additional health insurance based on principles of complementarity and solidarity. This also provides a foundation for the constitutionally guaranteed right to health care of every citizen of the Macedonian republic.

In spite of the existing legal option, in practice one virtually never encounters voluntary health insurance which would cover medical services outside basic health care, or services offered in supra-standard conditions.

Financial support for the health care system is essentially procured via the Health Insurance Fund (from payroll contributions), from the budget of the republic and from participation and charging for services rendered. In 1995 the contribution to the income of the health organisations from the Health Insurance Fund amounted to 78.8%, that of the budget 3.1%, from participation 4.9%, from cash payments 9.1% and from other sources 4.1%.

Existing Problems and Basic Orientations for their Solution

♦ The health sector is faced with serious problems in achieving its objectives. These are basically generated by severe material restrictions in terms of financing the health sector on the one hand, and by distortions emerging within its organisation and functioning on the other.

The drastic decrease in the GDP as a result of recession trends in the economy caused by the impact of economic and non-economic and, above all, external influences has led to a sharp reduction in material and financial resources in the health sector. Over the past few years, humanitarian aid received has partially alleviated the difficult conditions.

The widely stretched network of the public health service, disrespect for international standards and specifications in terms of the dimensions of health care facilities, the high level of decentralization (inherited from the previous system and shaped by the fact that hospital health care coverage was being provided for about 4 million people – those in Macedonia and in addition some of the residents of Kosovo and southern Serbia), as well as local funding have fragmented the system (certain facilities, services and equipment were duplicated, and are insufficiently used today) so that the entire network functions irrationally and is very expensive.

The present financing mechanism does not stimulate monitoring of expenditures. The Health Insurance Fund, in funding the health organisa-

tions, is founded on input (employees and beds) regardless of the volume of services, their efficiency or quality.

The still incomplete information system within the health sector has been conducive to the occurrence of 'statistical mirages' which have complicated any evaluation and realistic programming in the interests of cost efficiency and the fiscal maintenance of the system.

The principal development orientations of the health sector should facilitate the achievement of the following objectives:

♦ bringing further development into line with the financial possibilities of the state and its citizens;

♦ promoting health through: programmed prevention, environmental protection, the provision of correct and sound food and drinking water, family planning, and special care for children, women, old people and the disabled;

♦ closing the gap with internationally accepted standards and specifications in rendering health care to the population.

Because of the awareness that health care cannot be totally left to the free market, phased changes in the system and its oraganisational structure impose themselves while respecting the basic principles of spatial and temporal availability of treatment at medical centres and polyclinics, i.e. rationality and effectiveness in hospital health care.

This requires continuous and intensive international activity and the incorporation of new circumstances in compliance with European and global recommendations.

♦ Creating conditions for an increased level of domestic production and the import of necessary pharmaceuticals, medical disposables and sanitary goods and spare parts for medical equipment.

♦ Rationalising hospital health care.

♦ Adapting the framework of specifications (in compliance with accepted models for reform of the existing health system) – the Health Protection Act and the Health Insurance Act.

♦ The explicit demarcation and outlining of health financing, especially demarcation among the budget, compulsory health insurance, and additional and voluntary insurance.

♦ *Determining the extent of financial participation* for different types and forms of health services and medicaments.

9. THE REGIONAL COMPONENT OF DEVELOPMENT

In modern circumstances of development, and especially in the circumstances of transition typical of the 90s, the significance of regional development and regional development policy has not diminished. The rich regional theory and practice in the countries with a developed market economy, such in the European Union, shows that there should be no dilemma as to whether ***in the conditions of a market economy*** there exists the need for ***an active regional policy***. There should be no dilemma either as regards the need for a regional policy in a country as small as the Republic of Macedonia.

The political and economic ***independence*** of the Republic of Macedonia represents a new environment in which regional development is being organised and achieved. It is a different environment from when Macedonia was a part of the former Yugoslav federation. The new environment includes new ***property and market relations***, as well as branch and organisational ***restructuring of the economy***. In general, the new circumstances demand a new concept of regional and spatial policy consistent with the changes in the economic and political system.

I. The Basic Principles of Regional Development Policy

A complex approach to the regional component of development is expressed in the view of regional and spatial development as an ***integral part of global socio-economic development.*** This approach consists, more precisely, of certain basic principles, such as:

- integration of regional and sector development programmes and co-ordination of measures and instruments, where the development of insufficiently developed regions is one of the proportions of the global spatial system;
- consideration of regional development within the network of settlements, reform of local government and the establishment of the second level of local government and government administration, and, in this respect, regionalisation of the state;

♦ creation of a complex regional policy which will correspond to the standards of the European Union;

♦ formulation and realisation of regional development strategy.

(1) Contrary to present practice, in the period to come it is necessary to achieve an ***integration of sector and regional development;*** i.e. of sector and regional programmes within the framework of the economic policy.

(2) Until now, the complex issue of regional development has mostly been reduced only to the issue of the development of ***undeveloped regions,*** while the regions have not been perceived ***in their entirety***, which includes all regions, and even those which are experiencing certain problems in development, such as old industrial facilities, etc.

(3) Regional effects are most clearly articulated in the system of settlements, the point of departure in the defining of development sectors (***poles of growth***) being the ***urban system***, which also includes ***rural centres*** as potential poles of development. The urban and rural settlements are not only potential poles of development, neither are they only ***objects*** of regional development: they are also its ***subjects*** around which territorial units, economic regions and regional communities are formed. In contemporary world literature and practice, the tendency for spatial ***regionalization,*** within the same framework as the existing administrative and territorial divisions, has been intensified. These divisions, in turn, are usually based on the system of settlements.

In market conditions, the need for respect for the economic optimum demands a promotion of the concept of ***market orientation*** in the strategy for regional development. The market should be accepted as the basic allocation mechanism in the distribution of resources. The regional policy should respect the signals which come from the market, without attempting to substitute it or hold back the creative forces which are the promoters of innovation and enterpreneurship.

However, this does not mean that regional development should be left only to market principles. On the contrary, the experience gained thus far shows that market principles should be supplemented with certain measures and instruments by means of which positive impulses will be supported and shortcomings corrected, such as the polarisation of development and creation, over-concentration vs. empty regions, etc.

The current concept of regional policy in the Republic of Macedonia must undergo radical changes, primarily because it was essentially based on a distributive, and not a market and development logic.

II. The Basic Elements of the Strategy for the Regional Development of Macedonia

The strategy for regional development as an integral part of the strategy of development as a whole provides the basic theoretical and methodological base for the orientation of regional development. At the same time, it represents the scientific and information basis for the elaboration of development documents, analyses, plans, programmes, legal acts, etc. The strategy for regional development is based on the following elements:

1. ***Definition of regional priorities should be closely linked to sector priorities*** for the purpose of overcoming regional discrepancies; the regional component should become an important factor in efficient development.

In order to achieve this, special analyses should be made for the assessment of the ***situation, the problems and, in particular, the potential*** of certain municipalities and regions for export, the existence of highly qualified but unemployed labour, enterprise initiative for the establishing of small-size firms, the existence of an adequate infrastructure, telecommunication links, etc. On the basis of these and other criteria (gross domestic product *per capita,* unemployment, investment capacities, etc.) the following types of municipalities (regions) can be defined:

1. Municipalities in which during the given stage there is ***no critical mass*** of means or other prerequisites for autonomous development;

2. Municipalities in which certain prerequisites for self-development ***do exist,*** but their full realisation requires ***assistance from the state***;

3. Municipalities where during the current stage there are prerequisites for self-development ***without assistance from the state;***

4. Municipalities where external costs for development are high due to the economic and social ***inappropriateness of the concentration.***

Experience has shown that efficient development, together with the avoidance of the consequences of excessive ***concentration in the capital,*** can be achieved if the regional priorities and resources are localised and effectuated through the municipalities, i.e. the regions which possess the criti-

cal mass of prerequisites for development, clustered around ***medium-sized towns/cities.*** In most developing countries these have been taking over the role of the metropolitan centres and small towns with the improvement of ***their*** development perspectives.

In Macedonia, therefore, where the need is evident for the restraint and balancing of the development of Skopje as a ***concentrated metropolitan region,*** the most efficient method is the promotion of ***medium-sized towns/cities,*** i.e. other larger towns/cities which would be promoted as ***regional priorities*** for development; this would lead to a concentrated dispersion, i.e. intra-regional decentralisation. The development policy for medium-sized towns/cities, i.e. towns/cities of second degree, represents an instrument for ***an increase in global productivity*** in circumstances where the initial prerequisites for autonomous development exist (technical, social, infrastructural, educational, etc.). Such a policy provides the grounds for an increase in global productivity and for a ***decrease in regional differences.*** This, on the other hand, is a prerequisite for an expansion of the regional scope in development and a reduction of disparity in distribution at all levels.

Within such a concept Skopje does not lose its development prospects; on the contrary, these are effectuated on a qualitatively higher level – as a ***centre of first rank*** – while its development will be oriented towards ***tertiary*** and ***secondary*** activities which will define its function as the over-all centre of the state.

A certain number of ***rural centres*** should also figure in the defining of regional priorities. The selection of these centres should be made according to strict criteria and in accordance with the comparative advantages for the stimulation of the development of agriculture and small businesses.

2. ***Definition of infrastructural priorities*** as the function of regional objectives.

Infrastructural priorities should be precisely defined and linked to the development of the system of the towns/cities of second degree. Thus, for example, the ***Vardar Valley Project*** will promote multiplied poles of growth and make possible the integration of a growth pole strategy and infrastructural investments; it will also provide a high degree of exploitation of the infrastructure.

3. ***Strategic regional programmes,*** as part of the development strategy, should, above all, be ***restricted programmes.***

As opposed to discretionary programmes, restricted programmes create a framework for the engagement of all qualified businessmen, without any interference from political factors in their business decisions. A restricted programme stimulates every company which meets its criteria. Here, special attention should be paid to the development of ***company zones***, as one of the most successful examples of regional programmes. Of special importance is the establishing of a number of zones which would secure certain privileges from the community in the form of tax deductions, personnel training, infrastructural equipment, etc., while working under conditions of free competition. Success can be substantially improved if the zone locations are moved closer to medium-sized towns/cities and compatibility is achieved with infrastructural resources. Since company zones have proved successful in the practice of the development of a large number of countries, the possibility of the development of ***rural company zones*** should also be considered.

In Macedonia, in an environment where one of the strategic objectives is the consolidation of international trade connections, special attention should be paid to ***free trade zones.***

The possibility of subsidising what are known as ***business incubators***, included in other programmes, should also be investigated. These are increasingly popular programmes whose objective is the stimulation, creation and sustenance of new small businesses. These business incubators should be supported within the framework of the established business regulations, without spatial targeting of assistance.

4. ***The system of regional financial stimulation*** as the financial prerequisite for the realisation of regional objectives.

The financial stimulation should: a) define the full extent of subsidies; b) make a specification of subsidies according to their function – direct or indirect; c) review the possibilities for international financial and expert aid, etc. At this stage it is particularly important to operationalize correctly the criteria for the efficiency of regional development and for the elimination of a subjective approach in the assessment of development projects.

5. ***The system of measures*** should be composed of implicit measures (global policy measures) and explicit, direct measures (measures of regional development policy.)

The direct regional policy measures should be linked with the measures of global development policy, with the economic, demographic, social,

spatial and other policies, which have an implicit territorial influence. The absence of co-ordination between measures and instruments of regional and other policies is counter-effective.

III. Measures and Instruments of Regional Policy

According to one of the basic principles of development strategy, regional development, as an integral part of integrated development, should be achieved not only through explicit measures and instruments, but through general measures and instruments of global development and economic policy as well. In their adoption, their regional dimension, i.e. their influence on regional development, should also be taken into account. The general and specific measures of regional development that are being applied are actually measures which serve the function of both integral and regional development, where the co-ordination of the sector and regional approach, i.e. the integral approach, influences the increase in the efficiency of sector stimulation.

Bearing this in mind, one of the basic tasks of regional policy in Macedonia in the strategy of long-term development is to achieve ***co-ordination*** between the ***explicit measures*** of regional policy and other policies, such as industrial, agrarian, employment and technological development policies, or the stimulation of enterpreneurship. These always have their regional aspect as well, and thus represent ***implicit measures*** of regional policy.

A complex approach to regional development presupposes that regional development will be achieved in the most rational and efficient manner with the realisation of, above all, ***branch and structural priorities.*** These, at the same time, should also have their spatial projection, and should be confirmed on the level of particular regions or areas. Support for priorities which possess the largest generic potential is also support for specific regions which are the sites of these priorities, through whose realisation the basic objectives of the development strategy are achieved. Thus the subject of development is not the regions *per se*, but sector priorities, activities and branches which can emerge as growth poles in a concrete regional environment.

Border regions have already been given more attention and therefore support should be provided for special measures which would promote these activities. Their purpose is to activate the existing resources and the natural advantages which these regions possess for co-operation with similar regions in the neighbouring countries. Special support should be given to the construction of access roads, border crossings, telecommunications, energy and

general infrastructural linking of our border regions with such regions in other countries, and with other regions in Macedonia as well.

Indeed, it can be claimed that due to the fact that it sets out from the specific circumstances in individual regions, the regional dimension is directly incorporated in the development strategy of the Republic of Macedonia. In such an approach, ***the undeveloped municipalities and other regions which have development problems*** become the subject of both regional and integral policy and it is towards them that, on the basis of ***development priorities,*** the investments are guided, together with other measures. Development will be targeted especially towards those municipalities and regions which have comparative advantages and which, at the given time, can contribute to the realisation of the strategic objectives of regional and integral development.

Since municipalities and regions which are experiencing development problems represent a clearly defined social interest, they should be supported by ***direct and indirect measures*** of regional policy, especially for the development of the infrastructure and other prerequisites for the effectuation of production potentials.

The traditional instruments of regional policy, both in other countries and in the Republic of Macedonia, have proved inefficient and unsuccessful not only due to the lack of co-ordination between regional and other policies (industrial, agrarian, employment), but also due to lack of respect for market principles.

Since 1991, the measures and instruments of explicit regional policy in Macedonia have mainly been of a similar nature, while the implicit influence of measures of other policies on regional development has been taken into account, such as those of the fiscal policy (tax deductions for problematic regions, etc.). The explicit measures applied in the problematic regions support the development of the industrial and non-industrial (social) infrastructure. Over 85% of the funds from the Agency for the Support of the Development of Insufficiently Developed Regions have been allotted for this purpose, premiums have been granted for the creation of new jobs in the sphere of production, personnel training, payment of pension benefits and health insurance. Contrary to the previous system, when funds were mainly allotted to economic facilities, now the principal means of investment for the direct support of economic development are funds which ensure on-going investment in production facilities in these areas and refunds of interest.

Following the example of the European Union and other countries, these instruments, which have been successfully applied, should be further improved, but without neglecting the fact that in contemporary regional policy, development stimulation is realised mainly through global development policy and the fact that it is based on the stimulation of and support of the autochtonous development potential, the initiative of the economic subjects based on market principles, etc.

IV. The Need for Regionalisation

The current social changes require changes in the territorial organisation of the state. Bearing this in mind, one of the important questions regarding the development strategy of Macedonia is the question pertaining to the existence of ***the second or third degree*** of organisation of government authority and of local government. At this stage, with the new territorial division, government administration and local self-government will be organized on the level of the central authority and on the level of municipalities. For a number of reasons, mainly political, this does not include the existence of the second or third degree of (self) government, i.e. the existence of larger territorial units. These would be composed of territorially linked municipalities, which represent natural geographic and economic entities and which share a common interest in their development. In theory and in practice, such territorial units are usually referred to as ***regions, areas and subregions***, or, as far as the organisation of government administration is concerned, ***districts***, ***provinces,*** etc., while the process of the division of these territorial units is known as regionalisation.

It has often been emphasised that important elements of the concept of regionalisation are the search for ***local identity*** and the search for a more independent development role of the local and regional territorial communities. The objective of regionalisation is to achieve ***the self-development of local and regional communities*** on the basis of the enhancing of self-initiative, self-organisation and self-government in the development of the local development factors and a rational exploitation of the natural and spatial developmental potential.

Parallel to globalisation, the process of ***localisation, i.e. regionalisation,*** is also taking place in Europe; it is expressed in the transfer of a number of rights and obligations from the central to the regional or municipal level. Increased deconcentration and decentralisation are the result of the growing role of the local and regional sphere in everyday life and of the increased

valorisation of the economic model of flexible specialisation and the expansion of innovation zones and industrial regions based on the growing exploitation of local development sources.

This is to say that the municipalities are linked through regional ***communities or regions*** in which the population of several municipalities plan together and manage problems of regional importance, such as a regional industrial policy, common development and enterpreneurship agencies, common spatial planning, a regional education network, common water supply, regional waste disposal, etc. The municipal and regional communities strive towards a ***horizontal co-ordination*** of the interests of companies, settlements, municipalities and different public services.

Until 1964, the government administration in the Republic of Macedonia was organised and realised on the level of municipalities and on the level of seven ***districts*** (Bitola, Kumanovo, Ohrid, Skopje, Tetovo, Veles and Štip). Since 1964, government administration and communal self-government have been realised on the levels of the Republic and the municipalities.

In Macedonia it is still claimed, in spite of numerous suggestions, that there was no need for territorial municipal associations. The issue of regionalisation was especially current in the Macedonian economic sciences during the 70s, when a number of suggestions regarding economic regionalisation were put forward.

Even today, when the new territorial division has been made, no regionalisation is foreseen, nor the possibility of the formation of municipal associations or groupings of municipalities into larger units which share a common interest in their economic, social, spatial and cultural development. From the point of view of legislature, the only possibility for co-operation is given in cases when the need arises for solving certain problems, but without institutional forms. Without neglecting the seriousness of the arguments against the creation of intermediary degrees between basic local government and the central government, the need for the possible establishing of the second degree of government and local government, i.e. the possibility of the formation of regional and sub-regional associations, districts and other such territorial units and organs, should be investigated. In doing so, certain other, previously given suggestions regarding economic regionalisation should be considered as well.

The role of Skopje and, generally, the network of settlements and central towns, is closely connected with the administrative territorial division, these two areas being inter-related and mutually conditioned. The place and

the role of Skopje in the system of settlements and the regional structure of the country cannot be discussed separately from the issue of regionalisation and the establishing of regional and sub-regional municipal associations and from the location of urban and rural centres of these associations as a ***balanced*** and rational system of functionally linked settlements. The new regional and sub-regional associations should not exist only formally, without any rights and competencies; on the contrary, they should be the subjects of local self-government and government administration with clearly established rules and competencies.

In the forthcoming period, on the basis of such a concept of the regional development strategy, a ***co-ordinated system of settlements will gradually be built,*** in which every settlement will perform efficiently and rationally its role in the system as a centre and a pole of development for the neighbouring region. In such a system of settlements the role of Skopje as the centre of highest rank will be fulfilled.

The Republic of Macedonia has recently adopted the Law on New Territorial Organisation. 123 municipalities have been formed as territorial units of local self-government.

The new territorial division with a large number of small municipalities renders almost absurd the process of planning and prediction of future development if it is not accompanied by the co-ordination of inter-municipal interests within the network of higher regional and sub-regional associations.

Within such an approach, it would not be difficult to isolate regions which would be the target of explicit and implicit measures of regional policy, such as underdeveloped regions, sub-regions and municipalities, regions which are characterised by immigration, regions with demographic problems, in which there is a decline in the population, mountainous and border regions, regions with old industrial facilities which should be modernised and restructured.

PART TWO

BASIC FACTORS OF DEVELOPMENT

1. THE HUMAN CAPITAL

A) HUMAN RESOURCES

I. A Strategy of Balanced Input of a Qualified and Highly Educated Labour Force

Culture and education as factors in the quality of human resources in the Republic of Macedonia

"Human resources" is the whole, or a set of personal knowledge, experience, inventiveness, creativity, personal capabilities and other characteristics of the quality of the work force. It is not a natural phenomenon, established once and for ever, but a function of the activities and engagement of the person himself, within a framework of socially organized and institutionalized systems of education, science, culture, work practice, etc., as well as through independent education, specialization and expert training. Through education the person satisfies certain personal needs, but at the same time he also realizes mutual social goals and obligations.

An inclination towards education is an important mark of the culture and tradition of our people and our individuals, even though the current pressure upon young people for education, manifested through mass studying, is at the same time a result of lack of work offers, which are a better and more sensible alternative for young people.

Thus, culture and education are key determinants and indicators of the quality of the "human resources". Placed in a rational relation to the needs and possibilities of society, *they should be a starting point and an essential element of the strategy and policy of future development. For the strategy and policy of the future social and economic development, it is necessary to give a positive assessment of existing interests in and aptitudes for education, and to transform the current situation of a "surplus" of highly educated personnel from a weakness into an enormous comparative advantage.*

A market approach to "human resources"

A new element in the balance of "human resources" in the current conditions is the need for a *market approach to the creation and implementation of a policy for education and for the use of the work force.* The market actually determines the size, structure and quality of the work force according to various occupations, qualifications and education in a direct manner – through demand for products. Yet the work force, or the "human resources", is quite different from all other goods. Its particularity and specificity are manifested through the fact that it cannot be treated as a strictly determined factor.

The particularity and specificity of "human capital", as a market category, limits and even obscures the possibilities of an exact assessment and balance of the necessary scope and structure.

In that sense, in order to create and implement the strategy and policy of development, the following observations are important:

1. *In order to define the strategy and policy of social and economic development it is essential to make a global balance of the scope and structure of "human resources", as there are no firm and decisive quantitative measures and relations for these needs;*
2. *The strategy and policy of the creation and use of "human resources", education and employment, should be a mutual goal and responsibility of society, but also of all companies, and the family of each individual.*

The following basic perceptions are relevant to the relation, approaches and methods of balancing and projecting the needs and supply of an educated and qualified workforce:

1. *Education and full employment are, and should be, starting-point assumptions, goals of a market-oriented, and European in concept, strategy and policy of economic development.*
2. *Education is an essential interest and need of society as a whole, and especially of each individual, family and company.*
3. *In balancing the needs for educated personnel the starting-point must be the long-term needs of the society, the economy and the people. Such an approach could be called a "humanistic market approach".*

Another possible approach would be to start from the current short-term market needs of the economy for a workforce. It seems "more market-oriented" and "more normal", and yet it has numerous flaws and limitations.

Most of all, it neglects the autonomous needs of people for education, as well as the long-term character of education, which should not only satisfy current needs but also those in the future. Thus, if such an approach is accepted, the supply of high quality personnel is threatened as well as the entire social and economic progress.

The creation of and demand for qualified and educated personnel, based upon a "humanistic-market approach", shows tendencies to increase the participation of higher levels of education. Thus, the projection of the balance of needs for and the output of qualified personnel with secondary and higher and high education, based upon the stated relations of technological progress and the structure of the personnel, as well as upon the needs for the scientific technological progress of automated and computerized production systems, would be as in Table 10 on the next page.

According to the table, and according to both predictions, it is expected that there will be an increase in needs, i.e. demand for human resources in the forthcoming period, but with a substantial change in the structure in favor of secondary school, higher and further education. Such tendencies in development are expected to continue even more strongly after the year 2000. In 2009 the needs for qualified and highly qualified personnel will be reduced to 22.9% and the need for personnel with secondary education to 34.7%, according to the first model, and to 15% and 35%, according to the second model. The increase in the needs for personnel with higher and further education is greatest, amounting to 29.7% according to the first, and 37% according to the second model. In 2019 the needs for a cadre with further and higher education will reach 31.5% and, together with the cadre with the scientific titles of Master of Sciences, Specialist and Doctor of Sciences, it will reach 35% of the structure of the total number of employed according to the first, or 35% and 38% with the second model.

While not insisting on the exactness of every number in the table, it is highly significant that, if the current dynamics of creating highly educated personnel continues, and if those already employed remain at work and account is taken of the unemployed with further and higher education, *in 2019 there would be 167,000 persons with a high level of education. If we suppose a relatively low, but for current conditions, moderate average annual employment rate of 1.22%, as well as full employment of the highly educated personnel, we can expect that the needs for appropriate personnel will be dynamically satisfied by 2019. Nevertheless, according to the second variant, the needs would be for 264,000 persons, that is to say that in 2019 we would have almost 100,000 fewer persons available than necessary.*

Table 10

Structure of available cadre and prediction of necessary cadre according to qualification and education

Basis – 1995 = 100

	Variant I						Variant II					
	Needs – demand for personnel						Needs – demand for personnel					
	1999		2009		2019		1999		2009		2019	
	in 000	in %	in 000	in %	in 000	in %	in 000	in %	in 000	in %	in 000	in %
1	2	3	4	5	6	7	8	9	10	11	12	13
1. Total – 000	374.4	100	424.4	100	477.1	100	439	100	573	100	680.3	100
2. Unqualified, semi-qualified, parttrained, and personnel with elementary school	61.0	16.3	53.9	12.7	40.6	8.5	66	15	66	3	27.2	4
3. Qualified and highly qualified	92.5	24.7	97.2	22.9	102.6	21.5	136.1	31	143.3	25	146.3	21.5
4. Secondary education	128.4	34.3	147.3	34.7	167.0	35.0	153.7	35	200.6	35	244.9	36
5. Further and higher education	88.0	23.5	117.1	27.6	150.3	31.5	109.8	28	194.8	34	238.1	35
6. Masters degrees, specialists, Doctors of Science	4.5	1.2	8.9	2.1	16.7	3.5	8.8	2	17.2	3	23.8	3.5

Management (macro and micro) and leadership in teamwork presuppose an authority gained from knowledge and capabilities and not an authority gained from a hierarchic position or power. Therefore an increase in knowledge is necessary.

The strategy and policy of future development should be based on the need for numerous and qualitatively highly-educated personnel, rich in knowledge and capabilities as well as of Masters, specialists and Doctors of Science.

Apart from the degree of education, the balancing of needs according to the specialized field of the workforce is also very important. Professional skills are acquired through the educational system, but also in practice through qualification and vocational retraining on the job, or in organized forms of activities.

The professions of the workforce in the country at a given period should be appropriate to the structure of the economy and of the public activities, as well as to the technological changes. More concretely – they should be appropriate to the tempo of growth in certain activities and economic branches at that period of time.

Nevertheless, changing a profession through the educational system is harder to achieve than through the structure of the economy and the public services and activities. Direct contacts between the schools and the university, on the one hand, and the companies and the institutions, on the other, does not exist. Such a task of balancing the professions is therefore very complicated. Not even a model can be made for this issue, let alone any sort of quantity proportions. The problem can also not be left to market indications, as there is a long lag between market demand for a workforce in certain professions and an appropriate supply from the educational system.

The current network of educational institutions in the Republic of Macedonia is the result of the previous decades, when the structure of the economy was different had a different orientation. The changes made in the nineties were limited. Only certain basic directions in this respect can be suggested for the next phase. They are:

1. Secondary vocational schools must acquire the same rating as the general grammar school.
2. The curricula in all educational institutions must become flexible, i.e. they must be changeable without strictly centralized decisions.
3. Specialized subjects must not be pushed aside by the general educational ones.

4. Supplying on-going improvement and, if necessary, vocational re-training for the teaching personnel in all educational institutions.

Balancing needs for and output of educated personnel through the system of informal and on-going forms of education

For social and economic development on the threshold of the twenty-first century, and for the decades which follow, a personnel is necessary which is rich not only in knowledge and capabilities acquired through the process in the institutions of regular education, but also through the potential for on-going re-education. Acquired knowledge and capabilities should only be a basis for further independent and organized education.

*Through the model of a "**learning organization**", it is necessary to carry out systematic and continuous education, and improvement of erudition and knowledge of the employees through on-going education. The contents can, and must, be modified in accordance with the degree of education and according to the qualifications of employees, but also according to expertise, the type and character of the work, the level of hierarchy in the organization, etc. Use of various forms of the system of continuing education for work on computers, engineering, quality control, etc., especially for management and leadership, the chief administrative technical and commercial personnel and information personnel, as well as for all employees, in other words the creation of a **"learning organization"** and an **"organization of world class"**, should be incorporated into the foundations of the future strategy and the policy for social and economic development of the Republic of Macedonia.*

II. Long-term Forecasts on Migration and Possible Policy Directions

Long-term forecasts on migration

One of the basic characteristics of the post-war (World War II) development of the population in the Republic of Macedonia is its quite intensive territorial mobility. While in 1948 only 11.9% of the total population had changed its place of residence, in 1994 over 40% has done so. The great migration of population was caused mostly by economic development, but other factors also had a significant influence (social, political, etc.).

Migration movements were mostly undertaken by the rural population. From 1948 to 1994 the rural population had a negative migration balance of 645 thousand persons, that is to say 72% of its number in the first-mentioned years. The villages constantly lost a part of their population through migration to the towns and cities in the republic, but there was also considerable emigration abroad.

The cities constantly had a positive migration balance – a total of 340 thousand persons were registered in that same period. The population increased up to 1971, and then later decreased because of difficult employment and residence conditions in the cities.

It is realistic to expect that permanent migration from villages to towns and cities and abroad will continue, but also that its intensity will ebb with the development of rural areas and with the land area development.

Migration of population *from one to another settlement in the same municipality* has become a mass type of resettlement; in 1981 of the total number of immigrated persons, 44.4% were local migrants. *Migrating farther afield,* from one municipality to another, has been reduced to 41%. The greatest migration came from the economically least developed municipalities, so that a faster development of these municipalities is necessary in order to stop the stagnation of the already scarce population.

The number of people who work outside their place of permanent residence (102 thousand in 1991) is 1/5 of the total number of employed. Of these, *most are daily and weekly migrants* (i.e. commuters) – approximately 82%. Bearing in mind the numerous beneficial consequences of daily (and weekly) migration of the workforce, among which benefits there is also a reduction in permanent migration, the development policy will have to devote special attention to it.

The Republic of Macedonia had *a negative migration balance in relation to other countries amounting to 128 thousand persons* in the past inter-census period (1981–94) which amounts to 6.2% of the total population. This is a high percentage of human resources working and living abroad, with among them a growing percentage of qualified and highly educated personnel. The growth of family emigration, the extension of the duration of stays abroad and the fact that almost half of all the emigrants are in distant countries (Australia, USA, Canada, etc.) leads us to the conclusion that modern economic emigration has mostly become permanent emigration. Emigration of population from this country will also continue in the future, yet it is normal to expect that the number of emigrants will be substantially smaller in the conditions of an accelerated economic development.

Most of the immigrants to this country, on the other hand, have poor educational and vocational qualifications.

The need for an active migration policy. What has been said undoubtedly shows the need for an active migration policy in the Republic of Macedonia which will reduce the negative consequences of migration and create maximum positive effects in the total development process.

The following should be *the basic goals of the migration policy in this country* as a part of the total population policy:

1. Elimination of all reasons for spontaneous emigration from villages;
2. Changing migration flows in order to introduce a better use of human, natural and material resources;
3. A greater degree of co-ordination of migration with development needs;
4. Stimulation of daily migration of population and work force;
5. Organization of temporary economic migration abroad;
6. Stimulation of the return of migrants from abroad and productive engagement of their foreign currency transfers;
7. Implementation of a selective immigration policy.

Possible Policy Directions

Development of rural areas. Spontaneous emigration from the villages has created a great depopulation of rural areas. Because of this, efforts on the part of the social community are necessary for *the elimination of causes for mass migration from the villages and for the revitalization of the rural environment.* The long-term development policy of the Republic of Macedonia should create advantageous conditions for an *"integral development"* of the rural environment. Basic components of the rural regional development program would be: 1. economic development based primarily upon use of available resources with labor-intensive activities; 2. creation of rural centres which would attract the local population to work, making an easy daily migration of the workforce possible; 3. development of infrastructure and other living conditions; 4. favourable credits, customs and tax alleviation, etc., for new capacities and expansion of old ones; and 5. productive use of foreign currency transfers as well as the knowledge and experience of returned persons.

Development of towns and cities and migration to them. Permanent migrations have caused a large concentration of population in the largest

towns and cities, and most of all in Skopje, which is not rational either from an economic aspect or from other aspects. The percentage of the population in small towns of up to 20,000 citizens, as a part of the total urban population of this country, has diminished from 46.9% in 1948 to 13.7% in 1994.

For better use of the available potential of the whole area of the Republic of Macedonia, the development policy should strive *to strengthen small towns and cities economically so that they become stronger educational, medical and cultural centres,* especially as their rural hinterlands regions are relatively exhausted. In order to achieve this the migration policy must also change the flows of permanent migration and create a greater presence of local daily migration. In order to do so *development planning of the towns and cities and determining criteria for immigration to them* is necessary, with equal rights to immigration for all people.

Stimulation of daily migration. Within the strategy of development as a whole, it is necessary to support the daily migration (commuting) of the population and the workforce. The measures of the development policy should be directed towards the *creation of advantageous conditions for intensification of this migration* through: increasing possibilities for the economic activities of the population, improving the transport infra-structure and living conditions in places of permanent residence of daily migrants, raising their educational level and their vocational qualifications, etc. Future economic development will also require stimulation of daily migration of highly educated and highly qualified personnel from more developed regions.

Reduction of migration abroad. A long-term goal of the development policy should be to create economic and social conditions in our country which will reduce the need to work and live abroad. From this aspect, special care must be paid to unorganized emigration of highly qualified and highly educated personnel of essential importance for the development as a whole.

Realization of the stated aim is possible through *fast economic development,* making broader employment possible which would also reduce the differences in wages and living conditions between this country and the lands to which the people are immigrating. Organised temporary travel abroad for work, promotion of national interests and stimulation of returning migrants would, to a certain extent, help reduce emigration. The measures and migration policies should be supportive and not restrictive.

Bearing in mind the level of economic development and the degree of unemployment in the Republic of Macedonia, an influx of persons with low educational and vocational qualifications would not be beneficial. Because of

this a selective immigration policy, such as the developed countries have, is necessary in order to reduce this migration.

Protection at work and during the stay abroad. *Care for the migrants is necessary in all phases of the migration cycle.* The migration policy should encompass measures which will guarantee greater efficiency starting from their departure for work abroad, later activities concerning their work and life there, and also activities for the reintegration of migrants into our country as a measure for better utilization of foreign currency transfers.

The Republic of Macedonia should make efforts, through bilateral and multilateral agreements, to provide arrangements for organized employment abroad, and to provide complete legal protection of the work and life of migrants and their families who are already abroad. It is of special importance to regulate the return of migrants and to supply financial, technical and organizational help for their reintegration into the economy of this country.

Return migration. The migration policy could encourage the return of a portion of our emigrants abroad. *Supportive and complex measures are necessary to increase the number of returned persons,* especially for those with development potentials, those who have greater financial means and who have proven themselves in the countries of immigration as successful businessmen and workers. By investing their means and knowledge, as well as through transfer of part of their business, they could make a substantial contribution to the development of this country. Supportive measures of special importance are those in the field of customs taxes, taxes, the credit policy for economic investments, and efficient handling of the necessary administrative matters.

III. Long-term Trends Concerning Population Policy

Human resources, aside from actual capital and natural resources, are of essential importance for economic development. Placing the individual in the focus of development requires that human resources must develop in quality and be rationally used.

Unfavourable trends among the population require an active population policy

Natural growth of population in the Republic of Macedonia is higher than in the developed European countries, even though the difference has been reduced substantially. In 1995 the natural population growth per 1000

citizens became 8.2 as a result of 16.6 live new-born children and 8.4 persons who died. The number of infants who died per 1000 born alive was reduced to 22.5.

The reduction of mortality meant that the *expected life span upon birth* reached 70.1 years for men and 74.4 years for women in 1991/1992; this is 5–6 years less than the countries with the highest life expectation.

The net rate of reproduction of the total population is 1.03. It is an average of two different conditions – of insufficient reproduction among the Macedonian and other Christian populations, and an extensive reproduction among the Albanian, Turkish and Romany populations. Bearing this in mind, in 1994 the natural population growth per 1000 citizens for Macedonians amounted to 3.8, Serbs 1.2, while for the Albanians it was 19.9, Turks 14.3, and Romanies 22.2. Hence, both the appearance of insufficient reproduction among a part of the population, and that of extensive reproduction among another part of that population, are unfavourable and therefore must be controlled.

The social and economic, as well as the other structures of population in our country are inadequately developed. Economic activity among the female population (31% in 1981) is low. The structure of households according to the size of the household incomes is similarly low, and the educational structure is not good either. Children under 14 years are almost 1/4 of the total population (24.8% in 1994), but there are great differences in the age structure of the population according to ethnic national affiliation and according to municipalities.

The levels of natural growth and the underdevelopment of certain population structures, as well as their great differences within Macedonia, *are slowing down economic and social development.* Social influence is necessary in order to improve the conditions and trends among population.

The previous results of forecasts by the Statistics Institute of the Republic of Macedonia show that *basic population trends* will continue in the coming 25 years. From 1994 until 2019 it is predicted that:

1. *The total population will grow* from 1,936.9 thousand to 2,218.7 thousand (14.5%) as well as the percentage of persons between 15 and 64 (from 66.7% to 67.4%) and of older people (from 8.5% to 13.1%).. The percentage of children up to 14 years of age will decrease from 24.8% to 19.5%.
2. *The population capable of work will increase* by approximately 200 thousand persons and, together with the unemployed, will continue to create a large labour pool.

3. *The number of old people will grow* from 163.6 to 289.9 thousand (77.2% growth) which will require an appropriate increase in social and health care, as well as expenditure on pensions.
4. *The number of children under* 7 years of age *will decrease, at the stage of their entering to primary school by* 12% and, to a lesser degree, by 8% at the stage of *enrolling in secondary school.*

The basic goals of the population policy of the Republic of Macedonia should be: to realize a population growth with a low birth-rate and to reduce losses due to mortality and emigration; to halt the decline in fertility among the population which does not achieve prime reproduction, as well as reduce the growth of population with extensive reproduction. It should be a goal for the population policy to achieve a further reduction of mortality, especially among infants, and the extension of the life span; improvement of the structure and territorial distribution of the population; an efficient influence upon domestic and foreign migration and a harmonious interaction of demographic and economic development.

Accordingly, our country needs a highly complex, a long-term active and efficient population policy.

One of the chief long-term directions for the population policy should be a maximal utilization of human resources in the economic development. Such a development could be realized *through accelerated economic development and an increase in the level of economic activities of the work-capable population.* Such a development creates a higher standard of living and it changes the manner of thinking of people about their own reproduction, etc.

Because of this, and because of the economic underdevelopment of the Republic of Macedonia, a strategic decision is imposed upon us: *the long-term economic development must be realized primarily through the use of the available human and material resources in the country.*

The utilization of human resources will increase if *the economic policy is oriented towards* profitable, propulsive and export-oriented *labour-intensive branches of the economy* (first of all from the manufacturing industry and the agricultural industry complex), as well as towards a higher *level of finalization of products.* It must also be oriented towards expansion of the current economic activities abroad, towards participation by our companies in the production of parts intended for integrated production with foreign companies, etc. From this aspect, special attention should be paid to *the development of small companies* which are most often oriented toward labour-intensive activities.

In this sense, education is of particular importance, bearing in mind its fundamental function to educate people for creative work, for a more successful execution of economic activities and for a more equitable regulation of relations within the family and in society. Because of this, the national strategy on human resources should propagate a *further expansion of education, as well as an improvement of the quality of the educational process and the efficiency of education.*

In order to satisfy the need for a workforce with the desired qualifications, *adult education requires special attention.* It should be directed towards professional training, teaching new trades, and further education of the unemployed, etc., by using various forms of education – formal, informal and teaching through work (Learning by Doing).

The stated demographic conditions impose a need to include family planning activities within the framework of the long-term orientations of for the population policy. Through family planning, an attempt is made to bring individual convictions on the right to bear children, one of the basic human rights, in harmony with the possibilities and the developmental needs of the country, for a better quality of life. Countries with an extensive population reproduction, but also those with insufficient reproduction of population, are pledged to this. In family planning it is necessary to *engage all social subjects* (the Government, Parliament, the municipalities, health, educational, social, scientific and research and other institutions, information media). Appropriate *legal and other regulations* are necessary which would stimulate the birth of up to three children per family and which would de-stimulate the birth of more children.

B) LABOUR FORCE

I. The Labour Market

The situation of the labour market in the Republic of Macedonia

The Republic of Macedonia is experiencing a period of radical restructuring of its economy through the introduction and development of market institutions. This process is accompanied by significant distortion of all markets, and the labour market is no exception. The situation in the labour market is such that there is a general collapse in the demand for labour.

State intervention in the labour market

Labour markets differ from markets of goods and services. The price obtaining on the market for the "object" which is being bought and sold (labour) and the terms of employment influence to a large extent the quality of life of the employees and their families, very often in a manner which may appear unacceptable and contrary to the value system of the country. The state plays an important role on the labour market, even where trade unions exist. It should establish rules contained within an explicit legal framework, which represents the basis for the signing of individual and collective agreements. These rules should define the rights of employees, trade unions and employers, the terms for collective negotiation and the system for the settling of possible disputes. In order to achieve specific social goals, the state can intervene directly in the labour market. This intervention should prevent child labour (protection of children from exploitation); protect women and certain minority groups (not only ethnic or national minorities, but also certain groups which, for various reasons, face discrimination). Through incomes policy, state intervention in the domain of wages, including the determination of a minimum wage; regulation of security at the work-place and definition of health standards should also support the interests of labour.

Labour market policy

State policy regarding the labour market should follow the old saying: "Help the people help themselves". Assistance on the part of the state is of highest importance due to the great distortions in the labour market.

An active labour market policy involves three types of measures: assistance regarding employment (information, mediation and consulting), training (further qualification, requalification) and creation of jobs. An active labour market policy is designed and mostly used for the resolving of the problem of structural unemployment, and not of the general collapse of labour force demand, which is present on the Macedonian labour force market. Under such circumstances it is recommended that an active labour market policy be implemented selectively on the labour market and be targeted towards particular groups of persons seeking employment, and particularly towards those who have been looking for employment over an extended period of time.

One of the measures undertaken by the state for the increase of employment, i.e. decrease of unemployment, is government assistance in the

creation of jobs. The reiterated commitment, mostly verbal, to the development of enterpreneurship and the small and medium-sized companies should be operationalized.

Labour market institutions

Contemporary freely organised trade unions ensure a balance between a) the efforts of companies to be competitive on the market and to make a profit for their owners on the one hand, and b) the employees' aspirations for higher wages and better work conditions on the other. Those countries which, mainly for political reasons, limit the right of the unions to associate and organise, lack the mechanisms which enables the employees and the companies to negotiate on equal terms the level of wages and work conditions.

The basic principle of state regulation regarding employment (the relationship between labour and capital) should be that each of the parties involved in negotiation bears its own expenses and the consequences of its actions, without passing them on to third persons. For example, non-payment of wages during a strike forces the employees, i.e. their trade union, to work towards a rapid resolution of the dispute with their employers, while the refusal to supply credit for the companies while the strike is on, without toleration of delays in tax payment and other legal responsibilities on the part of the companies, raises the expenses for the managers and company owners, which is then the result of the postponement of the resolution of the dispute.

In the Republic of Macedonia, collective negotiation has been regulated by the Labour Law on three levels: general collective agreement, branch agreements and agreements at the level of companies. In practice, there are numerous dilemmas regarding the subjects to which the signed agreements refer (whether these are trade union members or all employees), implementation of sanctions for not abiding by what has been agreed, etc. Modest experience in negotiation, in the circumstances of a sharp economic crisis and a difficult position with regard to capital assets and finances in a large number of economic subjects, as well as the extremely high unemployment rate in the country, all of these are limiting factors for a faster development of this important social sphere. The corporate type of collective negotiation, i.e. centralised negotiation between the social partners (the majority trade union, the Chamber of Commerce and the government) is currently being applied in the Republic of Macedonia, regardless of the negative effects which accompany it. This is the type of negotiation which is applied in the

Scandinavian countries and Austria, and certain former socialist countries, such as Poland and Hungary. It is recommended to smaller countries, and, as such, it is suitable for Macedonia in the long run. However, in the short run, i.e. in the circumstances of the restructuring and adaptation of the economy, a decentralised system of collective negotiation should be preferred. This is necessary for overcoming of inherited, and largely disrupted wage structure (through market activity and negotiation at micro level) and also for the benefit of the contribution to differences in wages caused by the activity of the market as one of the instruments for the restructuring of the economy and a more efficient allocation of the labour force.

One of the important institutions of the labour market in the Republic of Macedonia is the Employment Bureau. It is a public institution with the responsibilities of a juristic person, with a central service and local offices – Employment Offices.

The basic efforts for the development of the Employment Bureau should be aimed at establishing an efficient labour market. At present, very few people see in this institution a place where they can get assistance when looking for employment. The Bureau has acquired the image of an institution for the registering of the unemployed and the catering for their rights as prescribed by the law. It is quite certain that this situation will persist in the course of the next few years, i.e. while the intensive microeconomic restructuring is still in process and while the economy has not fully recovered, which will, in turn, result in a significant decrease in unemployment rates. This will have provided the conditions for the Bureau to perform more actively its function of mediation and assistance for the unemployed, and thus provide a more expeditious securing of jobs.

The equipping of the Bureau and its local offices with computer technology is a crucial element in its modernisation. The introduction of such technology, with its enormous potential for data transfer, provides the technological infrastructure for the integration of the functions of the Employment Bureau and their better co-ordination. Yet, although the application of computer technology renders the information and the service more accessible, care should be taken that it does not impair personal contact with the public.

Statistical and information system on the labour market

A regular functioning of the labour market requires full and timely information for the participants. The employers need information on the level

of wages and on the number of employees who can be hired for such wages in order to make their decisions regarding new jobs and the qualifications of new employees for these jobs. Employees, present and future, need information regarding the level of wages (salaries) and available jobs, which will guide them in their education, training and choice of profession. The promoters of economic and social policy utilise the information regarding the situation and the outlook on the labour market, whose purpose is the follow-up of economic performance and preparation of efficient measures in labour market policy.

The International Labour Organisation (ILO) with its Convention No. 160 entitled "Convention on the Statistics of Labour Force" (ILO 1992, p. 1325) adopted in 1985, obligates the member countries that ratify it "to collect, compile and publish regularly basic statistics on the labour force".

It is necessary to begin with the implementation of labour force surveys at fixed intervals (monthly, with the averaging of the results received and their quarterly publication, after the example from various countries). In doing so, use can be made of the experience of the developed countries, as well as the several years' experience from most of the countries in transition which have been applying this methodology. The information obtained through these surveys is an invaluable source for the economic analysis of the changes in the structure of the labour force, its geographic distribution, the probability of withdrawal from the unemployment pool within a foreseeable period of time, the structure of earnings, etc.

The statistics on wages and the cost of labour also constitutes an important segment of the statistical and information system on the labour market.

In order to provide adequate monitoring of the changes in the absolute and relative amounts of wages for various groups of employees, it is in the interest of all social groups (trade unions, associations of employers and the state) that the statistics on wages be based on a standard *national classification of jobs*. The classification of jobs should correspond to the needs of the users and be consistently made in co-operation with them.

II. Long-term Policy Directives Regarding Over-employment and Unemployment

The aggregate supply of the labour force and its engagement

The volume of the labour force is determined by the components of its demographic growth and, above all, by natural and mechanical migration

and sex and age structure. However, the volume of the labour force does not depend solely on demographic factors; it depends on economic (non-demographic) factors as well, such as production growth and labour productivity, social factors (education and pension system, labour legislation, etc.), cultural factors, and numerous other elements. Consequently, the volume of the labour force (the total supply of labour force) represents a rather complex phenomenon which depends on a number of demographic and non-demographic factors.

Compared to 1989, the unemployment in Macedonia grew in 1995 by 44% (index 144). At the same time, the average annual unemployment growth rate was 6.27%. The dynamic rate in the growth of unemployment also contributed to the high rate of unemployment in the Republic of Macedonia.[10] Following the ILO methodology (International Labour Organisation), which also includes active agricultural workers in such calculations, the unemployment rate (calculated as the ratio between unemployed persons and the total labour force) is 31.65%.[11]

In April 1996, the total labour force in Macedonia was (following the ILO methodology) 780,419 persons, of whom 533,441 were employed, and 246,978 were unemployed. According to some researchers and the estimations of the World Bank and the IMF, the unemployment was 25%. The basic argument in such estimations is that a certain number of persons registered as unemployed are, actually employed, but illegally.

In this regard, we should like to point to the possible directions which will contribute to a better engagement of the labour force, and, consequently, to a decrease in unemployment in our country.

1. The basic strategic and long-term objective of an ***active employment policy*** should consist in the provision or creation of a large number of new ***jobs.*** Thus this model of the ***creation of new jobs*** will secure the engagement of the labour force, which, in turn, represents an opportunity for a reduction in the present rate of unemployment in the Republic of Macedonia from 31.65% (i.e. 25%) to some 10% by 2020. This would be possible with the achievement of a ***stable, structurally harmonised economic development and a revival and growth of production.***

[10] According to official statistical data, in 1995 the calculated unemployment rate (the ratio between the unemployed and the active population) was 37.7%. Our statistical calculation does not consider active agricultural workers as active population.

[11] Source: *Labour Force Survey – 1996.* Skopje: Bureau of Statistics of the Republic of Macedonia, December 1996 (previous results).

2. Intensification of the ***building of infrastructure facilities.***

3. Increase in the ***mobility of the labour force*** through the stimulation of employment and the elimination of the excessive protection of the already employed.

4. Acceleration and increase in the ***sector mobility*** of the labour force.

5. Increased employment and mobility of the labour force through a promotion of ***flexible forms of employment***, such as employment for a specific period of time, employment by contract, employment at home, etc.

In the forthcoming period the Government of the Republic of Macedonia (more precisely, the Ministry of Labour) should ***prepare criteria by which it will make a clear distinction between registered unemployed persons (registered unemployment) and factually unemployed persons (factual unemployment).***

The problem of supernumerary employment

Concealed unemployment in the form of insufficient engagement of the labour force (supernumerary employment) is present in both the industrial and non-industrial spheres. This phenomenon is the consequence of the excessive supply of labour force and insufficient demand. The total number of supernumerarily employed persons in our country, although relatively high, is still uncertain, due to a lack of analysis and research. Privatisation and structural reforms, however, have significantly reduced this number.

In the forthcoming period, the companies from the industrial sphere, which are operating in a new and changed market environment, will strive to ***economise labour and in this manner eliminate the supernumerary labour force. The recruitment and selection of an adequate and qualified labour force will be made by the companies.*** In our opinion, in the coming period, supernumerary employment will be present in public enterprises and state agencies. Therefore we believe that these companies and agencies should also respect the principles of economizing on the use of labour, and rationality and efficiency.

Frictional unemployment

Frictional unemployment is a natural phenomenon in a dynamic economic system. It occurs in two basic types:

a) unemployment related to the average length of time required to find employment;

b) unemployment related to the length of time required to call the employee to return to his/her former job;

Frictional unemployment is regarded as permitted (tolerable) even in countries where full employment has been achieved.

Frictional unemployment can be reduced through government programmes which will provide better information on vacancies and professions for those seeking employment and through the assistance provided in the linking of the candidates for employment and the employers (e.g. state agencies and employment bureaux).

Structural unemployment

Structural unemployment arises ***firstly, from the absence of co-ordination between the qualifications and skills required for available jobs and the qualifications and skills possessed by persons seeking employment, and, secondly, from the absence of co-ordination between the location of the companies offering jobs and the place of residence of those offering their labour.***

In order to reduce structural unemployment, the active labour policy should be directed towards the following:

1. ***Adoption of programmes for education and re-qualification;***

2. Programmes and measures which will contribute towards a higher sector and regional mobility of the labour force;

3. Provision of purpose-directed subsidising of wages and tax credits for employees.

The problem of urban over-population: options

The participation of the urban population in the total population of the Republic of Macedonia rose from 20.8% in 1948 to 58.7% in 1994.[12] ***This process has contributed to an almost full elimination of agrarian over-population and its subsequent transformation to urban over-population.***

[12] The year of the latest census in the Republic of Macedonia.

No research has been undertaken in the Republic of Macedonia on the scope of urban over-population and its characteristics. However, it is undeniable that it exists.

These are the options for the alleviation and resolution of urban over-population in the coming period:

1. Implementation of the concept of an appropriate migration policy.
2. The active employment policy should stimulate reversible (returning) trends, especially among the younger workforce.
3. Selective migration policy.
4. The active employment policy should provide higher regional mobility of the labour force (stimulation of all the available forms of labour force circulation: daily, weekly, seasonal, etc.).

2. CAPITAL AND INVESTMENTS

I. Capital Funds and Investments – Key Aspects

The development strategy of Macedonia will be pursued under the conditions of a **market economy, autonomy of saving subjects** with reference to the manner of the disposal of savings and **business autonomy** of investors with reference to determining the volume of investments and selection of projects. **Companies**, in accordance with general investment criteria, will make investment decisions in an independent way. **Commercial banks**, in accordance with economic and financial criteria for profitability and liquidity of placements, will dispose of their credit potential in an independent way. The **population** (families) will dispose of their assets, will freely determine the level of their savings according to the income available, and will decide how to use their savings (deposit them in financial institutions, invest directly in projects which will bring profit, buy securities, etc.). **The State**, within the economic system, will act to create and maintain the general investment climate and indirectly, it will influence the volume and investment structure without disrupting companies' independence in investment decision-making. On the other hand, because it is necessary to create general conditions for running a business and for living, the state, in accordance with public enterprises' savings and the budget, will direct investments towards the public sector and according to priorities, will make decisions on investment projects in the sphere of the big investment infrastructure.

Led by market rules, companies, managers and entrepreneurs take into consideration the parameters of their operating environment in investment decision-making. Important quantitative signals in investment decision-making are: interest rates, tax rates, customs rates, investment reliefs and stimulation. They also take into consideration other economic and social signals such as economic stability, general investment climate, system investment conditions, general political stability, etc.

Indirectly, the state will have an influence on companies' progress by creating systemic conditions, by having a policy for technological progress, by assuming environmental, employment, residential construction and educa-

tion policies to be strategic ones and particularly by controlling segments of the economic policy (monetary, tax and economic relations with foreign countries) and the investment policy.

The investment policy of the state will be implemented by influencing the **volume of investments**, the **structure of investments according to sectors**, the **regional structure**, through the policy on **restructuring** and **rehabilitating companies**, through the policy on **establishing new companies**, etc. Furthermore, the state will act as an investor in spheres of public interest which are important for economic development and for the life of the population, especially in cases when the direct investors are public companies or when public projects are financed from the budget.

Such is **the general framework of the investment process** under the conditions of a modern market economy into which the strategy of capital and investments in Macedonia will be incorporated.

Because of the low development level in the country and due to serious economic and social problems inherited from the past, as well as because of structural and social problems that have resulted from the transformation to a new economic system in the transition period, it is necessary to build a strategy of more intensive and more efficient investment. This requires an **aggressive and active investment policy** in the country which will provide **total and relative growth** of investments (growth of investment rates) and growth of **investment efficiency**.

Evaluation of the Level, Structure and Conditions of Capital Funds

Capital funds in the Republic of Macedonia are at a **low level of development**. Fixed funds *per capita* and per employee are on such a low level that they are an important limiting factor of future economic progress.

The second feature of capital funds is the **obsolete** active fixed capital in a technical and technological sense. The level of technological development has been lagging behind, particularly in the period between 1990 and 1992 when the real level of investments, which was in a state of stagnation during the 80s, started to decrease at an annual rate of more than 10%. Starting from 1993, gross investments in the GDP increased. Thus, in 1994, they accounted for 18,64%. Existing technology which was adjusted to mass production in the metallurgical sector and which was characterized by high expenditure of electricity and other material inputs and which greatly influ-

enced the environment, has now become obsolete. Furthermore, during the last decade, the Macedonian economy has lacked a modern base technologies such as information technologies, technologies of new materials, genetic engineering and biological technologies, energy technologies, etc. The Macedonian industry has equipment and technology which is economically and physically obsolete. Because of disinvestment in certain sectors which has been present for almost a decade, it is estimated that more than 80% of the equipment is economically and physically obsolete.

The third feature is **the high level of depreciation of fixed capital.** In the Republic of Macedonia, fixed capital was accumulated mainly during the sixties and the seventies. In these decades, investment was at a very high level in all spheres of the economy and in the public sector. The average offset value of investment capital in economy in 1994 amounted to 53%. The highest rate of depreciation of fixed funds is in industry (60.6%), in transport (63%), in construction (47.2%) and in communal activities (46.2%). In the agricultural sector, because of the character of fixed funds, according to the statistics, the global depreciation rate is slightly lower (40.5%), but the depreciation rate of equipment is also very high. In other economic sectors, the depreciation of assets is below 40%. In the infrastructure, there is an extremely high depreciation rate in the railways (over 72%), but also the depreciation rate in the electricity company is very high (51%).

Fourthly, **the inadequate structure of fixed capital**, viewed from different aspects, possesses the following features:

♦ inadequacy regarding the share of the element within **the technical structure** (high participation of the passive element of fixed capital, low participation of equipment and insignificant participation of investments in research and development). In 1994, the value of equipment accounted for only 45.2% of the total purchase value of fixed assets in the overall economy. The greatest amount of fixed funds is located in construction work (over 1/2).

♦ inadequacy of the **sector distribution of fixed capital** (high participation of capital intensive activities). Fixed funds participate greatly in the economic infrastructure, as well as in the energy sector, in the raw material sector, especially the metallurgical (in ferrous and non-ferrous metallurgy) which are the sectors with the highest depreciation of capital.

♦ **the low adjustment of fixed assets to modern processes of restructuring** which has taken place in the economies of developed countries. The Macedonian economy contains technologies from the sixties

and the seventies which have been abandoned by western economies in the process of restructuring.

Fifthly, **the low economic value of fixed capital.** The value of fixed capital, according to purchase (original historic cost) and current value is very low, almost the lowest in Europe (***per capita*** and per employee) and among the lowest values in the European countries which are in the process of transition.

Basic Investment Relations and Features

In Macedonia, the total value of investments in fixed funds during the last decade has been very low and does not provide for reproduction of fixed capital.

During the last two decades, the gross investments accounted for only 18% of total GDP. In the period after 1990, investments were at their lowest level in 1992; in that year the gross investment rate was only 15.5%. These are very low rates, if we take into consideration the fact that during certain past years, in the period between 1971 and 1980, the gross investment rate was over 40%.

In the last fifteen years, **economic investments**, with rare exceptions in certain years, amounted to less than 11% of the total GDP (in 1992 only 10.9%). This was a period of disinvestment when the investment rate was only slightly higher than the depreciation rate. Such disinvestment had not occurred in the Macedonian economy before. The inaction of the investment sector was present for a long time – for one and a half decades. A certain recovery was noticed in 1995 with the intentions of entering a zone of positive growth of investment rates.

Current Problems

A fundamental investment problem is **the low level of investment**, especially in the real economic sectors of the economy. The inaction in the investment sector has existed for almost fifteen years and the share of gross investments in fixed assets was at the level of the depreciation rate. There was also disinvestment in certain years.

For several years, the Macedonian economy has been in a stage of ownership transformation which has not been accompanied by organizational and technological transformation. On the contrary, there is a process of disinvestment in a managerial and organizational sense.

A serious problem in Macedonian economy is **the low utilization of fixed funds**. The degree of utilization of facilities is on average about 45%. A great number of facilities in the raw materials sector and from the final consumption sector have ceased productions, some of them temporarily, some permanently.

Investment efficiency is very low. The already low level of investment, is compounded by the inefficient utilization of that investment when there is little growth in the economy. On the one hand, this is insufficient to prevent the fall of the GDP, and on the other hand, insufficient to produce growth.

After the initiating impulses of dynamic growth in the private sector, there has been **a decrease in the number of new investment projects and new companies**. Projects in the sphere of production are rare.

The basic reason for the low level of investment is **the low accumulation level** (savings) which is present in the companies, among the population, in the banks and in the public sector. To this we can add the high risk of investing in an economy in transition which does not have an established economic system and certain other risks. This prevents foreign businessmen and foreign financial institutions from investing in our economy.

Another problem connected with the low volume and low investment efficiency is **the non-existence of institutions such as agencies and consulting centers which promote investment** and prepare high quality investment projects. Investment projects are still being prepared according to traditional methods.

Strategic Goals of Savings and Investments

The volume of investments will depend upon the realization of certain strategic guidelines for increasing domestic savings. Under the new market conditions of the economy when foreign investors are not engaging capital in our economy, the strategic objective should be:

First, increasing the level of total current domestic savings;

Second, activating the population's hoarded savings;

Third, financing investments by means of modern capital market instruments (especially through joint stock capital);

Fourth, admission of foreign investment, mainly through direct investments and joint ventures.

The realization of the above – mentioned strategic guidelines will enable present total domestic savings to amount to 1/5 of the GDP, increase the level of investment in the fixed capital to about 1/4 of the GDP, improve the economic structure of investments and increase participation of economic investments, and finally direct the technical structure of investments towards technical and technological modernization of facilities.

Taking into consideration the economic structure and efficiency of investments, it would be necessary **to increase the level of investment to 23/24% of GDP**, which would produce an **annual growth of GDP of about 2.5 to 3%.** This is only a low rate of growth, bearing in mind the problems that the Macedonian economy has to solve, but viewed objectively, and taking into consideration the difficulties of the process of the restructuring of the economy, such dynamics would be possible in the next decade.

About six percent of the expected level of investments (which is about 23 to 24% of GDP) will be invested in the big infrastructure, about two percent will be invested in public services and state administration, four percent in residential construction and eleven to twelve percent will be invested in the commercial segment of economy (real economic investments).

During the second decade, which would cover a period from the year 2005 to the year 2015, we should not expect a quantitative increase of gross investments in GDP. It would come to a level of 24% with intentions of positive changes in the global economic structure, in which economic investments would amount to 15% of the GDP. The level of investment in the economic infrastructure and residential construction will decrease.

II. Strategic Guidelines for Growth of Investments in the Overall Economy

Long-term Factors Determining Investment Demand

Investment can be intensified **if the expected net inflows are increased** (investment expectations). This is an important factor in increasing investments. In a situation when **the marginal efficiency of capital** (internal rate of profitability) is higher than the interest rate, there is an interest in investment. We would estimate this rate to be between 18% and 24%, depending on the sector in which the investment is made and the risk rate. This would be a strategic investment parameter for the next decade. The macroeconomic investment policy can influence the level of net yields **by ways of increasing net monetary flow and establishing investment incentives.**

In order to decrease monetary outflow for the purchase of capital goods from abroad, the following should be done:

a. **customs relief.** Lowering customs duties will lower the purchase price of imported equipment. Bearing in mind that our country is an insignificant producer of equipment, we should build a strategy of low customs rates for importing equipment.

b. Adopting a **policy of a real foreign exchange rate of the denar** in the long run, and not one subject to appreciation. This stimulates the import of investment equipment.

Interest Rate Policy

Together with macroeconomic, monetary and fiscal policy it is necessary to implement a policy of **positive real interest rates.** Due to high credit demand for turnover of capital, the current level of interest rates is unrealistically high.

A strategic goal of the macroeconomic policy will be to **reduce interest rates to a realistic level, so that they can become a stimulating element for the overall investment policy.** Within this framework, monetary policy should maintain mild control over the supply of new money that will be oriented towards investments. However, interest rates, under the conditions of a free capital market, should not be below the real level, nor should it head in that direction. This would endanger the level of savings, which are already at a very low level and need to be stimulated. We should aim at maintaining objective and positive real interest rates which would promote interest in savings and investment. This balance can be achieved by a free capital market, but only if supported by economic policy.

The level of interest rates should depend on the following principles:

First, **interest rates in developed countries** which result from the supply of and demand for capital.

Second, **the inflation rate**, measured in terms of the increase in retail prices. In cases when the annual inflation rate is 5%, the positive real interest rate should amount to more than 3 percent.

Third, the **risk regarding rate of return on capital**. During the last few years, in the Republic of Macedonia, this element has been an important part of the structure of interest rates. If we surmount the reasons for high risk, we should expect to see a normalization of the level of risk of interest rates which would be accompanied by a decrease in interest rates.

Fourth, **changes in the exchange rate of the denar** with other foreign currencies which would serve as a corrective criteria for foreign exchange credits (credits from foreign exchange savings and deposits).

Fifth, **the level of the discount rate** established by the National Bank. A strategic goal should be to lower the level of the discount rate.

One way to stimulate investment would be **to reduce interest rates.** This should be in effect only for credits connected with investment in equipment. Reduction of interest rates should not be higher than 20% of the total investment in equipment.

Profit Tax, Tax and Custom Relief Policy

Investment can be promoted by fiscal and customs relief policy.

We can expect certain effects **from the reduction of profit tax from 30% to 15%. The** current tax system contains good measures for stimulating investment, i.e. for tax relief in cases of reinvestment of profit and they should be considered as permanent measures. **Exemption from profit tax for newly-established companies during the first years of their business** activities also stimulates investment and should be considered as a permanent instrument. Due to the fact that there is no great fiscal effect from the budget, there should be total exemption from profit tax for small businesses in the future tax system. **Acceptance of accelerated depreciation** as a cost (element) in the tax base, which exists in the current tax system, should be a permanent goal (it should be 1/2 higher than minimal rates). These measures stimulate modernization of equipment in companies.

Promoting investment can be achieved by a **reduction of personal income tax rates from the present 23–35% to about 20% and by reduction of sales tax from imported goods to a tax rate of 5%.**

Current **customs rates** do not meet the needs of progress and do not stimulate investors. Customs rates for importing equipment are high. We believe that in order to stimulate investments, customs rates for importing equipment should not be higher than 2–3%.

Guidelines for Investments in Residential Construction

During the last 5–6 years, residential construction of apartments has been dropping.

A strategic target which would meet the needs of the population for apartments would be to keep investments in residential construction **at 4%**

of GDP, or at 17% of the total investments in the country. With such an intensity it would be possible to construct 6000 new units and to renovate a number of the existing apartments.

The basic **financial sources for residential construction** would be funds from citizens and funds that would be obtained through mortgage loans. However, we cannot avoid the fact that a number of apartment units for families on social welfare will need to be financed from the budget. An alternative to this would be paying the rent or giving subsidies for a part of the rent for apartments rented by these families, which would come from the budget.

Guidelines for Investing in Public Institutions and Activities

During the last decade, the largest decrease in investments has been noticed in the public sector. A large decrease in investments in the public sector was noticed in the period after 1980.

In the forthcoming decade, investments in the public sector will go up to **2% of GDP, or 8% of the total investments in the country.** There should be a priority for investments in equipment in the spheres of education, science and the health sector.

Investments in the Economic Infrastructure

The economic infrastructure comprises 1/3 of the total fixed capital in the overall economy of Macedonia. Bearing in mind the general low development level of the overall economy, it can be concluded that the development level of fixed capital in the economic infrastructure is relatively good. In certain sectors, such as roads, postal services and communications, and in the sphere of electricity production, the quality of the infrastructure networks is relatively good and above the achieved level of development. There is a critically high level of obsolete equipment in the railroads where the total fixed funds are 72%, and that of equipment is 82%, in electricity production the total fixed funds are 51% and the equipment is 61%. In the airline sector and in postal services and communications, due to significant and consistent investment, the level of obsolescence is very low and is about 20% and 30% respectively.

The development of the economic infrastructure and investments in the public sector should be under the authority of the state. Investments would be made in accordance **with a medium-term program.** Investments

would amount to **6% of GDP, and not exceed 25% of the total investments in the country.**

Investments in the infrastructure would be made from the following sources:

First, **assets belonging to public enterprises** (depreciation rate and a part of the price of goods and services intended for development);

Second, **the state's budget revenues;**

Third, **revenues from concessions** for using public goods of public interest;

Fourth, revenues from **sales of state capital;**

Fifth, **loans and credits from abroad;**

Sixth, **local budgets** for communal services infrastructure.

III. Policy on Sources for Financing Investments

The central strategic determination of the policy pursued is **to upgrade the level of domestic savings** and to attract foreign capital in the form of **direct investments from foreign companies** and **joint ventures with domestic partners.**

The present **level of investments in the country** is extremely low. Total savings and total depreciation amount to only 15% of GDP. A great part of the investment sources is mandatory depreciation, although large part of this is used to meet current needs, including salaries. The savings of enterprises and companies, which are in the form of net profit, in 1995 amounted to only 3% of GDP, while savings in the public sector are extremely low. The savings of the banks, because of the actual fall in deposits, are also at a very low level, with a tendency to a further decrease. These are alarming official statistics, but we believe that total current savings, particularly in the sphere of the economy and among the population, is much higher than the official statistics, because of hoarded inactive savings which are being activated partly in the sphere of investments, beyond record – keeping in payment operations and outside commercial bank accounts (cash monetary transactions among the population). Roughly speaking, we believe that the **inactive hoarded savings among the population is more than $ 800 million and that in the gray economy there is a circulation of another $ 500 million**. We should also take into consideration the fact that certain economic entities, citizens and banks have savings in foreign banking institutions which amount to $ 200 million.

Another problem connected with savings and investments is **how to activate hoarded savings.** Activating hoarded savings would improve the investment balance of commercial banking and decrease the need for foreign credits. This problem is however not amenable to normal financial measures because the owners of hoarded savings believe that their savings are safer if they have them in their own hands (even if they don't gain profit) rather than depositing them in the banks and gaining interest. People do not trust domestic banks and there is a high level of savings insecurity. Bringing trust back will be a long process. This process must go in parallel with the stabilization of general social and economic conditions and with the process of economic development in the country. Only high growth rates of GDP and high efficiency of investment projects can be an economic guarantee for the people to deposit their savings in banks or in other forms of savings in the organized capital market.

It will be possible to activate the hoarded savings of the population by fulfilling the following conditions:

First, **maintenance of the political and economic stability** of the country;

Second, **maintenance of a low inflation rate** and establishment of a stable market and stable financial flows;

Third, **selection of solid investment projects in enterprises** and companies which would serve as a guarantee to the citizen-investor to gain safe and high profit;

Fourth, **preservation of the actual value of deposits** and security of disposal of them at any time;

Fifth, **insurance against risks to deposits** in banks and saving-banks. The degree of deposit insurance must not increase the moral risk in banking;

Sixth, there should be **a moratorium on taxes on interest**;

Seventh, implementation of **a positive real interest rate policy.**

IV. Guidelines for a Policy to Attract Foreign Investments

In the future long-term development, Macedonia will have to face up to the problem of lack of capital. Domestic savings are insufficient to intensify an investment process which would provide technological rejuvenation of fixed capital, which would activate domestic production factors and would

provide growth of the domestic product. Viewed objectively, Macedonia will have to encourage foreign capital. New borrowing (loans and credits) has been limited by **the level of indebtedness of the country**, which influences economic efficiency.

Guidelines for a Strategy on Foreign Investments

The strategy on admission of additional capital from abroad should be altered and it should be adjusted to the strategic goals of achieving an open and export-oriented economy. The present dominance of loans and credits should be replaced by **a dominance of direct foreign investments.**

Direct foreign investments would enter the country in the following forms:

First, **establishment of new companies** by foreign persons, plants, branch offices, agencies, shops,etc;

Second, **joint ventures of foreign and domestic companies** in projects with sharing of the risks;

Third, **participation of foreign persons in the acquisition of social enterprises** (equity participation or shares) in the process of ownership transformation;

Fourth, **concessions to foreigners** for using natural resources and for projects in activities where there is a legal opportunity for concessions for foreign persons.

Strategic Aims of the Policy of Direct Investments from Abroad

The strategic goals of the policy for attracting direct investments from abroad would be the following:

1. All sectors that are accessible to domestic enterprises and companies should be equally accessible to all foreign investors.

2. Foreign investors should have the same treatment as domestic enterprises and companies. This means that the policy on direct investments from abroad should create a better investment climate, general stability, stability of systemic decisions and it should create benefits which would be the same as those of domestic enterprises. This would be an equal-term policy of running a business for all investors – foreign and domestic.

The Policy of Borrowing Abroad

Beside the basic strategy of encouraging foreign investment via direct foreign investments, Macedonia, because of low domestic savings, will have to take out foreign credits.

The strategy for borrowing abroad would be implemented in the following directions:

First, **the level of indebtedness must not exceed the present 22–23%,** measured as a percentage of the obligations from foreign loans in comparison with the total flow of the current balance;

Second, **a strict selective policy on new borrowing must be implemented.** The priorities regarding borrowing would be the following:

a) Credit lines **for technological restructuring of the export-oriented economy**. The borrowers would be the enterprises, and, during the first years, if they are not able to take out credits, the state would serve as a guarantor. Placement of credits would be realized through commercial banks with an economic and financial evaluation of profitability and liquidity of investment;
b) Credit lines **for small farmers**. The state would serve as a guarantor and the beneficiaries would be selected by commercial banks which would invest credits in projects selected according to standard banking criteria;
c) Credits **for large infrastructure projects**.

Loans and credits for the economic infrastructure could be used only if the investor (the public enterprise) proves that it is able to repay the loan from its own revenues and only if the state agrees to be a guarantor to repay the loan or the credit. This will be done in cases when there is a need to build up a certain form of infrastructure and when the investor cannot repay the credit from his own assets. However, we believe that borrowing abroad to invest in the economic infrastructure will be limited because of the balance of payment restrictions in the country and because of limitations on the budget in the matter of servicing obligations towards foreign creditors. As a result of these economic and financial conditions in public enterprises and the limitations of the budget in financing balance limits, the strategy of the development policy in the sphere of the large infrastructure should be oriented towards the model of concessions to foreigners.

Table 11

Projected volume of fixed fund investment in the period between 1996 and 2000[1]

	In US $ (million) according to the current exchange rate [2]		In US $ (million) according to the corrected exchange rate of the US $ [4]		In denars (billion) according to prices in 1995 [5]		Structure	Percentage of the GDP
	Accumulation from-to	Annual average [3]	Accumulation from-to	Annual average [3]	Accumulation from-to	Annual average [3]		
Total investments	3.650 – 3.760	752	2.920 – 3.008	602	179 – 185	37	100.0	23 –24
Economic investments	2.738 – 2.820	564	2.190 – 2.256	451	135 –139	28	75.0	17 –18
economic infrastructure	912 – 940	188	730 – 752	150	45 – 46	9	25.0	about 6
commercial sector	1.826 –1.880	376	1.460 – 1–504	301	90 – 92	19	50.0	11 – 12
Investments in public sector and services	304 – 313	63	243 –250	50	15	3	8.0	about 2
Residential construction	608 – 627	125	487 – 502	101	30 – 31	6	17.0	about 4
Items of projection: – the GDP	15.205 –15.665	3.133	12.165 –12.534	2.507	748 – 770	154		
– projected growth of the GDP in %	2 – 3		2 – 3		2 – 3			

[1] Assuming that the average intensity of investment (23–24%) which was determined for a long-term period will continue in the period between 1996 and 2000, although we reckon that the intensity of investment in this period would be about 5% lower.

[2] Accumulation amounts are determined from the projected GDP at an average annual rate of 2–3% and investment intensity of 24%. The estimate of the GDP inUs$ has been made according to the concept of material production and the average exchange rate of the US$ (43.2 denars for 1 US$ in 1994) (123,767 million denars/43.2 = 2.865). In 1995, there was a real fall of 3% and a 3% deflator and the GDP was at the same level as that of 1994. Accumulation amounts in the period between 1996 and 2000 have been calculated as a sum of the projected annual amounts at a growth rate of 2–3%.

[3] They have been determined at a projected growth rate of the GDP of 3% and investment intensity of 24% (upper limit).

[4] It is believed that the exchange rate of the denar was overestimated by about 25% in 1994, and there was need for correction of the GDP in order to get lower values than those presented in the current exchange rate. Thus, the value of the GDP in 1994 after the correction is 2,292 million US$.

[5] According to the Bureau of Statistics, the value of the GDP in 1995 was 140,851 million denars. The method and the procedure for projection of the GDP and the volume of investments is the same as the procedure described in footnote number 2.

3. TECHNOLOGICAL MODERNISATION*

On the threshold of the millennium of the rule of information technology, the technological strategy is the backbone of every long term development strategy. Modern theory and practice have confirmed the polyvalent importance of technological process for development, through its growing contribution to the increase of economic growth, exports, competitiveness, the standard of living and the general standard of the people. The Republic of Macedonia has, therefore, no alternative. Despite the current hardships in the period of transition, we must turn to technological progress as a foundation for growth and towards its continued incorporation into the process of total development transformation.

I. How Far Behind Are We

The indicators for the assessment of the technological development of the Republic of Macedonia show a condition of multi-phase technological retrogression, which in some production sectors is measured in terms of two to three decades. In the production structure spheres, low or medium technological intensity is predominant utilizing classical technologies with above average consumption of energy and raw materials.

The technical equippedness of the labour in Macedonian industry (elementary means per employee) was 11,025 US$ in 1993. Behind this low level stand long years of the trend towards reduced technical equippedness (Graph No. 9).

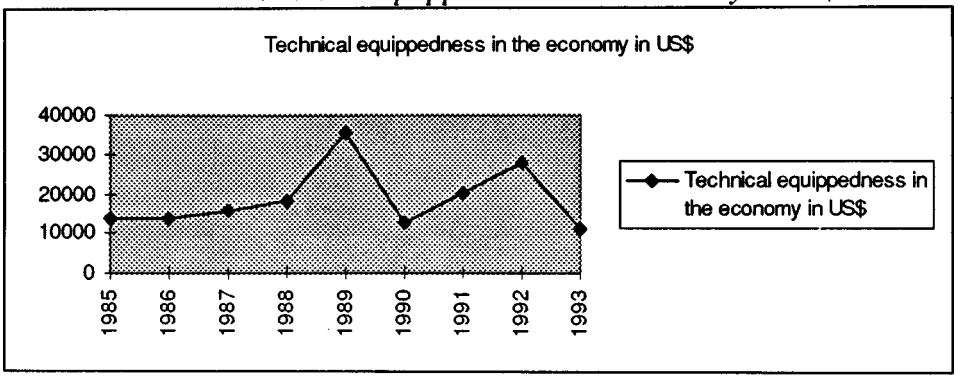
Within the framework of former Yugoslavia, this trend resulted in an increased deviation from the Yugoslav average (for example, in 1986 the difference is greater than in 1952). Even though varying in dynamics, since the end of the sixties until today the productivity of labour, investment capability and the general efficiency of development have been constantly

* The tables in this text are based upon data from The Statistical Office of the Republic of Macedonia, and the book "Technological Development of Macedonia", Z. Popovska, Makedonska Kniga, 1991 Skopje.

decreasing, along with the technical equippedness. Since 1990, the instruments of labour in Macedonian industry have registered a very disturbing fall (graph No. 10)[1] .

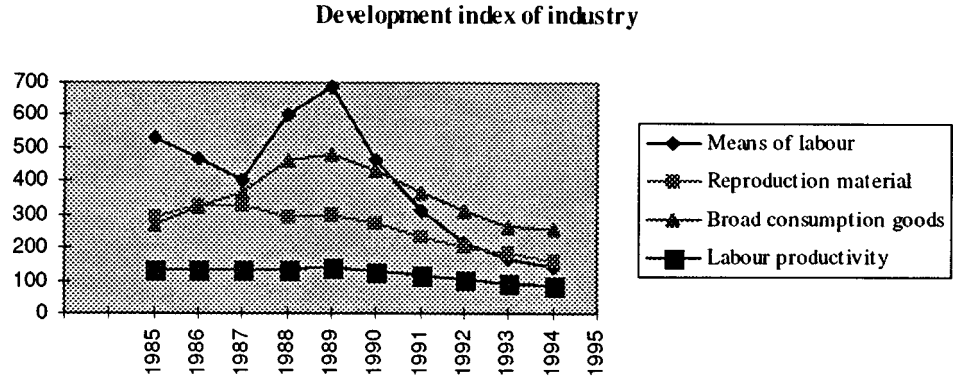
Graph 9

Technical equippedness in the economy in US$



Graph 10

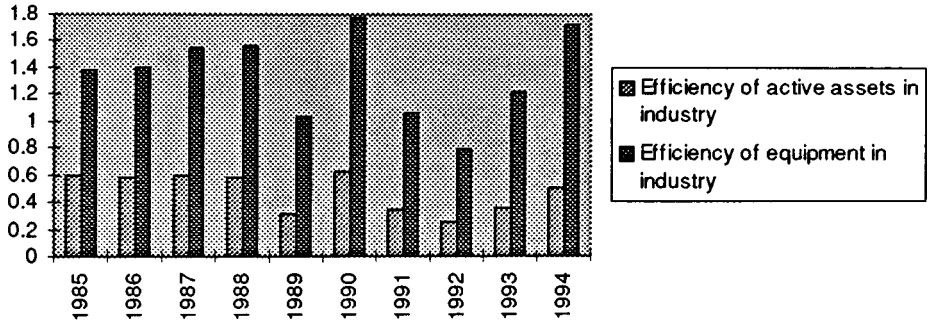
Development index of industry



1

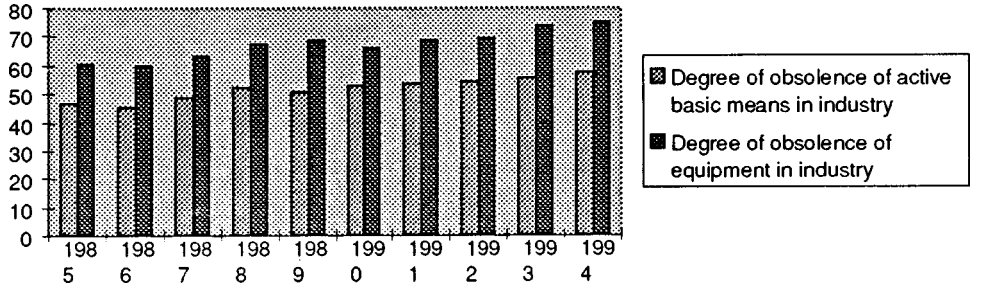
Not even the level of efficiency of capital assets in Macedonian industry has been able to escape these negative trends. (Chart No. 1)

Chart 1



The degree to which the elementary means and equipment of Macedonian industry is worn out is especially disquieting. (Chart No. 2). The Republic of Macedonia will enter the 21st century with totally obsolete industrial equipment, whose competitive inferiority condemns all attempts at an "export break-through", "conquests of new markets", "a decrease in the deficit", or "an increase in the standard of living" to failure.

Chart 2



The large companies of the main and the accelerated branch – the implementers of technological progress – are in the worst technological condition. The degree of obsolescence of the elementary means and machinery for work in the metal processing and other spheres important for development, is higher than the industrial average, which in 1994 amounted to 57.70% and 74.8%. (Table No. 12) These conditions warn that further

neglect of the (technological) foundations of development will cause a total failure of all structural elements, which will undoubtedly permanently restrict the rate of development.

Table 12

Degree of obsolescence of equipment

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Metal processing activities	60.53	–	62.94	65.95	70.60	73.28	80.40	68.79	72.7	79.6
Machine production	72.15	63.25	52.17	65.03	57.97	63.24	67.41	69.13	63.8	73.0
Production of means of transport	56.26	54.18	60.51	66.85	69.99	62.83	88.20	91.07	84.2	89.9
Prod.of electrical machines & appl.	51.62	44.36	50.48	52.23	63.16	70.42	70.68	68.47	67.1	75.1
Production of chemical products	61.30	57.94	62.77	70.41	80.63	85.53	79.25	80.38	85.4	85.5
Processing of chemical products	63.57	61.10	69.79	74.80	72.71	73.17	77.92	65.56	56.6	74.1

A high percentage of this equipment is imported. A negative consequence, apart from the direct economic damage from several decades of sporadic transfer, is the long-term neglect of domestic creative research potentials. The allotment of funds from the domestic product for scientific research work has constantly been below the Yugoslav average, and today, in the period of transition, it has decreased to the level of only 0.05%. There are approximately 10 researchers per 10,000 citizens (not counting researchers in companies which have not registered their research centres). Of these, 47% are in the technical sciences. The result of such social treatment of scientific research work is the almost totally substituted patent activity and a very low level of innovative activities. (Table No. 13)

The economic and technical co-operation of the Macedonian companies fills in the picture of our technological inferiority (Table No. 14). For numerous reasons, the forms of this co-operation do not contribute to the realisation of the strategic policy for an open economy.

Table 13

Innovative activities

Year	Patents		Technical		Useful proposals		Samples	
	registere	recognise	registere	recognise	registered	recognise	registered	recognised
1985	2	2	23	9	28	9	–	–
1986	–	–	–	–	–	–	–	–
1987	8	7	106	33	102	22	–	–
1988	–	–	132	47	91	46	2	–
1989	6	3	64	41	79	37	–	–
1990	1	–	10	6	54	15	–	–
1991	–	–	4	3	29	4	14	–
1992	20	14	10	1	44	20	31	–
1993	–	–	1	1	36	10	29	–

Table 14

Economic and technological co-operation of Macedonian enterprises abroad, period between 1991 and 1994 in thousands of Denars

	1991	1992	1993	1994	1991–94
Long-term production co-operation	118,810.0	3,443.8	37,724.6	65,139.7	–82.4%
Foreign investments	11,880.4	2,207.1	811,.7	19,089.7	37%
Investment work abroad	24,042.6	531.3	6,805.3	45,393.2	47%
Other relations abroad	2,9875.5	86.4	860.7	1,175.7	–153.3%

In the nineties, the costs of increased erosion of the elements of technological development contributed a large percentage of the high social price of transitional changes. Neither the market nor the state has made its contribution in transforming innovations and technologies into factors for the revitalisation of production and an increase in its competitiveness.

II. A Developmental Environment for New Technological Changes

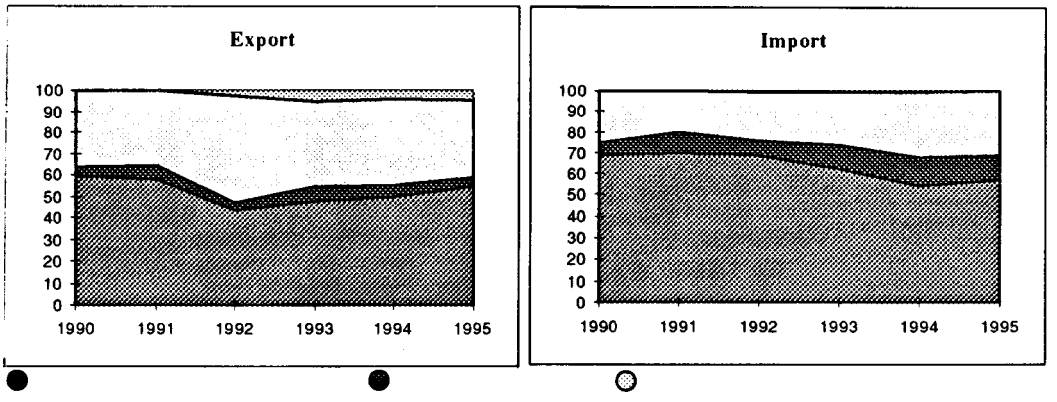
The inefficiency of the Republic of Macedonia was evident even in former Yugoslavia, yet the autarchic model at that time prevented confrontation of the negative consequences. In passing over to a market economy, which is an open economy, all delusions about the previous development became visible, as well as the great deviation of the competitiveness of our production from world market criteria. Being a small country which sees its prospects in binding itself to the international market, Macedonia must accept the global characteristics of the international economy.

One of the global characteristics of the international economy is the inseparability of growth from investment and foreign trade, the basis of which is modern technological progress. The Macedonian economy, with a low growth rate, a small volume of investment, and exports and imports dominated by reproduction materials, and where the equipment is almost a "residual factor", does not have the basis to take part in this global economy. Means of labour contributed 4.7% of the export structure in 1990, and 5.1% in 1994, while contributing 6.4% of the import structure in 1990 and 10.7% in 1994 (Chart No. 3)

A low growth rate with a correspondingly underdeveloped and uncompetitive technological production sector could be a development alternative for an economy whose efficiency is measured only according to the criteria of the domestic (and very small) market. However the attainment of even modest growth rates in our conditions (for example, approximately 5%), without a radical change in the export-import matrix, will not be sufficient for the development of the technological capability of the Macedonian economy and its inclusion in the global trends of the international economy. Foreign investments in technology and knowledge are a strategic ingredient to ensure these changes. Nevertheless, bearing in mind the fact that there is no permanently supported growth through foreign investment, they must be directed toward the strengthening of our own sources of growth. **The following is necessary** in order to create **development possibilities for technological modernisation with effects in raising the competitive capability of the Macedonian economy:**

Chart 3

Structure of exports and imports according to purpose in %



♦ **higher growth rates** in the next ten-year period;

♦ **improvement of the export-import structure** through increase of the contribution of equipment, that is to say, technology and knowledge;

♦ **a permanent policy of attracting foreign investments** and stimulating the financial support of domestic companies by foreign ones in the function of opening new markets;

♦ **development of market conditions in which competition will play its role in orientation towards innovative production sectors.**

The dependence of competitive capability on innovative capability is a global feature. The race on the world market starts with the race for innovation. Innovation-products, or innovation-processes, are a result of respect for, and construction of, research efforts in the creation of new products and services. The symbiosis of science and technology is not an issue of choice but an issue of survival in today's technological (informational) revolution. In order to adjust to the basic features of modern changes, therefore, it is necessary to carry out the following:

♦ **increase expenditure intended for research and development to the average level of the countries of the OECD, i.e. to the level of 1.6%.**

♦ **increase the contribution of the (private sector) economy in the financing of scientific research work to the level of 50%,** meaning that financing by the state should be reduced to the same level, which is approximately the standard for OECD.

These changes suppose the development of a new social setting. Understanding of the process of "social learning" is, therefore, of special importance, as an adaptation to the new changes which will be brought about by the modern technological development, fundamental to which is information technology. The **social feasibility of technological changes is made possible through innovation, for example:** spreading an industrial climate; institutional organisational efficiency; new legislation on rules of economic behaviour and work relationships; promotion of new forms of management; encouragement of the spirit of enterpreneurship; promotion of European standards in communications.

III. Choosing the Strategy

A characteristic of the transitional period is the abundance of developmental dilemmas. One of them is the dilemma of our relationship toward high technologies. Demands and wishes push us forward, yet possibilities are what determines the selecting. In the next ten year period **our country has no possibility of building a development based on high technologies. For Macedonia, the only possible strategy is the combination of the following:**

♦ **Taking over and developing such technologies as will make a quick adjustment of our companies to the criteria of international competition possible, as well as an increase of productivity and standards. These are technologies of a modern type, but, of the lower and medium level, which combined with innovative management would revitalise and modernise the general technological basis and increase the technological and export capability of the economy.**

♦ **Monitoring modern technologies in specialised fields which, because of their characteristics, have become an infrastructural necessity for our integration into the global system of international exchange and communications. These are high level technologies generated in the developed countries and their pursuit is carried out through support for selected projects.**

This is a strategy which is a combination of imported and domestic knowledge and technology. It is a mixed strategy with elements of the strategy of mastering modern technologies (1), and a strategy of following the technology (2). The realisation of this strategy should create conditions for a future move to a strategy of technological dynamism.

The building of a technological future (Technology Foresight) must be based upon a considered concept based upon a total assessment of the development performance (Technology Portfolio), and with a consensus of all active participants in the developmental policy. This is also especially important from the point of view of the danger of increased conflict from **introduction of new technologies in conditions of high unemployment.** The reduced number of employees and the further expected fall in employees in industry which will coincide with its revitalisation and modernisation through the introduction of new technologies should be "compensated for" through the already mentioned increase in the number of employees in the tertiary sector and its further support. This support, in which it is necessary that the educational policy also participates, should support an above average development of the informational professions. Such structural changes are in the direction of a global move towards the tertiary sector, which appears under the influence of modern technological changes.

1) Starting from the possibility of and the need for a faster but well-thought-out technological development, the strategic orientation will be predominant in our country in the next ten year of **mastering the imported technologies with our own knowledge**. Through a broad scope of activities this orientation will influence the behaviour of most of the economic subjects. Thus, it is a priority task for the government to give stimulative support to the development of a new business policy among companies. The government should be engaged in the creation of conditions for sound competitive relations on the market, changes in business behaviour and the creation of infra-structural conditions for the adoption and mastering of imported technologies. We have stated several forms of support for companies business policy:

- Regulating market conditions based on legal projects ensuring protection against unfair competition;
- Stimulation of domestic economic entities' interest in new markets through bilateral and multilateral arrangements, and involvement of banking, financing and economic information in co-operation;
- Organisation of activities to attract the interest of foreign companies in co-operation with domestic companies, founding of foreign companies, branches, agencies and centres, as a mechanism for transfer of technologies and knowledge;
- Creating conditions for various types of partnership in the interests of linkage between purchasers and producers, service activities and

production activities, and small- and large-scale firms aiming at diffusion of technologies;

♦ Support for inter-regional and inter-sector diffusion of innovations;

♦ Creation of conditions for diversification as a possibility for creating and accepting technological improvements in various areas.

♦ Stimulation of production co-operation with foreign companies aimed at sale of certain articles to foreign producers, or purchase of prototypes for their further improvement.

♦ Support for the *niche* strategy of domestic companies as a means to a faster establishment of connections with multinational companies.

♦ Support for small- and medium-sized companies in the mastering of advanced computer technology (micro-computers, specialised information services, software), biotechnology (diagnostic techniques, new plant cultures) etc.

♦ Support for education, consulting and training, marketing and management, aimed at stimulating innovative activities on the part of a variety of different types of trained personnel.

This option of acquiring and mastering imported technology has a key influence upon endogenisation of the technological capability of the Macedonian economy.

2) The strategic option mentioned; **following the advanced technologies,** presupposes an ongoing support for the transfer of such technologies – from participation in foreign research and development projects, economic, production, and other types of co-operation with foreign partners, to purchase of their high technology components. Various forms of support are possible aimed at our participation in the specialised fields of the advanced (high) technologies:

♦ Participation in the R&D (research and development) projects of the European Union (The Fourth Framework Programme) in which other countries which are not members of the EU are already participating, with access to specific programmes on a project-to-project basis;

♦ Participation in trans-national and bilateral co-operation (business, R&D centres, universities, services, etc.) supported by commercial and non-commercial agreements on the transfer of knowledge and its implementation in practice;

♦ Connections between our successful companies and multinational companies in production programmes for small products based on high technology, supported by agreements on long-term production co-operation, joint-ventures, direct investments, etc.

Advanced technologies are becoming infra-structures – the interest of our strategy can be found and specified there. Selection of technological priorities, supported by fiscal, tax and import tax measures, should be made from the following advanced technologies: **biotechnology, industrial materials, electronics, telecommunications, software and micro-electronics and production technology.**

The sophistication of the economic structure through implementing electronics is a means of for establishing the necessary compatibility between the old and new technology.

IV. Ways for Introducing Changes

The success of a strategy strongly depends on its continuity and on its long-term stage-by-stage realisation. Technological changes in the Republic of Macedonia can be implemented in three stages – instituted in accordance with the prevalence of given methods in the realisation of the strategic objectives: Stage 1: Technological revitalisation – maximum utilisation of available potentials; Stage 2: Modernisation of technology – a complex adjustment to new changes in technology; Stage 3: Intensification of technology – overall reconstruction and integration into current technological changes.

Revitalisation is a way to maximally utilise all potentials whose activation should make the revival of the growth and export rates possible. It should make the production capacities capable of efficient functioning. However, giving new force to existing capacities cannot be carried out only through the material part of technology – but also through the immaterial part – knowledge, functionally oriented towards the needs of the economy. This means that revitalisation should be carried out not only through new equipment and products, but also through new standards, marketing concepts, new organisation methods, new management. Because of this, the need for the revival of the available resources is inseparable from the restructuring of the production, personnel and management structure, on a micro and macro level.

In this phase, transfer of imported technology (material and non-material knowledge) will prevail, with a priority towards a swift revitalisation of production. At the same time, conditions must be developed for the mastering of imported technologies through implementation of our own knowledge, skills and experience. Particularly important is the revitalisation

of the areas significant for technological revival: the metal-working complex, the electrical industry, chemical industry and agro-industrial complexes.

Modernisation must open a wide front of changes in the spheres of both economic and non-economic activities. The need to unite the technologies of management and marketing results in a concurrence and causality of their modernisation. This should **be realised through new technologies, new products and new materials, accompanied by gaining the necessary new knowledge.** The technological portfolio, which must necessarily be made on a global and on a sector level, should specify the production according to its developmental capability in order to see the need for support of advanced technologies in developmentally potential production. A beginning step could be the implementation of the "Boston Box". Based upon financial, production, staff, and market indicators as well as upon their potential importance we will state several products of Macedonian industry which could be specified in the stated groups:

First group: products which promise a long-term market success – **information technologies; biotechnology; industrial materials.**

Second group: products which are in development even though they do not participate much in the current market – **production of electric machines and appliances, production of household electric appliances and other electric devices; production of parts for electronic devices and machines; production of communication devices and appliances; production of measurement and regulation equipment, means of automation and control in industry; production of metal-processing machines and other machines; specialised metal final products; final chemical products.**

Third group: products which have a greater share in the market, but with little developmental success – **production of textile yarns and cloths; production of final textile products; production of basic chemical products; production of construction materials; production of leather footwear; production of food products; production of beverages; production and processing of tobacco; production of final wood products; processing of non-ferrous metals; plastic chemical products.**

Fourth group: products which have an inconsiderable share of the market and which are problematic in view of their future *market success* – **production of iron ore; ferrous metallurgy; production of certain non-ferrous metal ores; production of non-ferrous metals; production of stripped lumber and planks.**

Technological intensification, after this decade, could initiate the process of mastering and broader acceptance of information technology and other advanced technologies. Intensive production restructuring would provoke construction of new capacities, new production and new infrastructural forms for support of the development. In the time frame this would correspond to the strategy of technological dynamism. Changes leading to it will more and more establish cross-links between the economic and non-economic sphere and will balance their participation in the creation of market valorised results. Macedonia can reach this phase only through constant realisation of the strategic policy in each period of the long-term technological transformation.

Innovations policy

In view of the seriously reduced activities, which includes the scientific and research sector as well as the industrial sector, the innovation policy should simultaneously stimulate both the offer of innovations (supply oriented innovation policy) and also the demand for innovations (demand oriented innovation policy). This will cause a complex matrix of inter-connections between the research and development and the educational scientific needs on the one hand, and industry and the market on the other. The educational scientific institutions and the independent research institutes should develop a trend towards integration or permanent co-operation with industrial organisations. This is the way to bring them closer to the needs of the market for innovations, and also to reduce their dependence on budget financing. The market should become a crucial factor in the appearance of innovations, which stresses the role of market oriented organisations in the creation of innovation demand.

A supply oriented technological innovation policy should stimulate the conditions, sources, implementers and creators of innovations. According to global features, it should be expected that the sources of innovative ideas will be less registered in the scientific research institutions, but increasingly so in the sectors of business organisation and operation in industrial companies, vitality of research and development units, management, marketing, entrepreneurship, expert work force. Therefore, instead of in the domain of the science research centre, the centre-point of the stimulative policy should increasingly be moved to the domain of industrial companies. This should be supported through special care for the increase of the equippedness and the number of development units in the economy.

A demand oriented innovation policy must put industry in the centre of its interest. The instrument of public ordering should be used, aimed at developing innovation demand, where the public sector participates to a large extent in the demand. These are the departments of: information and telecommunications equipment, equipment for transport and electric-energy systems, software programme, office equipment, medical equipment, environmental equipment.

It seems that support for research projects of a developmental and applied character in the domain of technological innovations is necessary.

Technology transfer

In our conditions, a high degree of compatibility is necessary between the policy of technological transfer and the policy of innovations. Several determinations are important in the formation of our relationship to technological transfer:

♦ The development of a system of evaluation is a necessity for the verification of the priority areas for the import of technology, but also as a possibility of stopping imports which are in collision with the goals of our development. In the absence of a licencing policy and registration of imported technology and know-how, the influx of capital remained unmeasured, as well as the damages from ecological contaminators unrecorded.

♦ The non-material transfer of technology has to be planned in accordance with the material transfer in the industrial organisations. Foreign offers of know-how through consulting, training, and visits of experts, cannot be as useful as an offer linked to a concrete project for the mastering of imported technology, innovation of a product, or innovation of a process.

♦ Particularly intense support for modern forms of technological co-operation. In this framework, co-operation with multi-national companies on the production of complementary technologies is very important.

♦ An efficient licencing policy which encourages and supports the development of our own capabilities in order to improve the technologies bought. The transfer supported concurrently by licences, the promotion of research and the development of intellectual property, and assessed through a system of evaluation, is a part of the policy of endogenisation of the technological capability of our economy.

Technological infrastructure

The development of an adequate scientific educational and technological infrastructure to support the above-listed courses of action and tasks should be subject to detailed analysis and evaluation. The first priority is the **establishment of a national technological fund (for innovations).** This should be implemented in order to support programs such as: purchase of advanced technology (those most valued could be allotted subsidies in amounts greater than 50% of the capital needed); commercial and non-commercial transfer of technology for the creation of our own innovations in priority production; innovative employment of young highly qualified personnel (for example, with interest-free funds and long-term grace periods); etc. On the other hand there is the **establishment of a fund for investment in industrial company personnel** which should help carry the burden of costs for acquiring:

- *knowledge and qualifications for new production,* namely for education and training, for purchase of information, for organisational consulting;
- *knowledge of the market and competition*, namely for marketing, market research, co-operation with new partners;
- *knowledge of transfer of technologies*, namely for applied and development research, purchase of patent and licence information, designing products, creating technical documentation, creating or purchasing software, know-how, etc.

Opening **services and centres for support to innovations** as a part of a state policy of stimulation of innovations in advanced technologies, is a necessary element of the technological infra-structure. **The technology park,** as the most integrated form of connection between industry, education, science and development, can also be assessed from the aspect of its importance for the regional development of the technological infra-structure. It can also include **incubators** – forms with a strong effect upon creation of demand for new products.

The development of a new model for infra-structure will lead to reorganisation in three spheres: the scientific research sector, the industrial sector, and the state organs and institutions.

Small and medium sized companies

Support for small and medium companies (SMEs) is aimed at increasing employment, growth and competition, but also aimed at technological development.

Following the EU policy, our immediate engagement should be in the **domain of assistance for transition of SMEs to a new business policy. This includes** the support for the supply of information, in order to strengthen their business activities, advancement of partnership and co-operation (production, management, marketing, financial) between them, preparation for competition in an open market, stimulating co-operation between the service and industrial sector, etc. In order to support their activity it is necessary to organise an information system and services, training and consulting agencies and services for various issues such as competition, new markets, marketing, standardisation, quality, etc. The support for small and medium companies in the **domain of scientific and technological development is** a long-term engagement. Because of this, connecting points must be found between the policy of technological development and the policy of support of business capability of small and medium companies. One of these connecting points is support for these companies in mastering **technologically intensive production with competitive capabilities on the world market.** Support is necessary starting from informing, participation in the creation of new technologies or products, making acceptance of new technologies easier, along with their spread and commercialisation.

V. Process of Information dissemination

Information dissemination makes cheaper development possible because it has a comprehensive influence upon raising functional efficiency on a macro and micro level .

In our experience, there is no complex organised attitude towards development of the *information* infra-structure. The programme activities for the construction of the social information system of the country, started in the second half of the seventies, have not yet been realised. Obsolescence is evident in the software, hardware and the organization of information systems. The information infra-structure in the **field of science and technology** has the same weaknesses. The structure of information

intermediaries, which are so important for the future development of the information market has not been developed, which influences the insufficient number of consumers of information services. The scientific and economic systems remain informationally divided. Within the domain of *communication infra-structure*, a step forward has been taken by connection to the Internet. Because of this, it is necessary to construct a long-term information policy, structured and in stages, for support of information systems development which our connections Europe and the world depend upon.

Even though it is a big task, **the task of designing the social information system deserves its place at the top of the list of social priorities.** The efficiency of the management of economic, social, educational, scientific, cultural, political and other processes in the state depends on the degree of development of this global system. Its sub-system is the information system in the economy. In order to make the connection and dissemination of data possible for all consumers, starting with the government and moving to the micro level, this system should be structured in the following fields: areas and resources, economy, market, finances, science and technological development, international economic relations. In order to establish the social information system and for the advancement of the process of "informatisation" the following engagements are necessary:

- **Revitalisation of the existing information systems and data-bases;**
- **Modernisation of the existing information systems, where the development of on-line data-bases can be designed;**
- **Designing new modern information systems and data-bases.**

These strategic tasks are important for the information infrastructure also, as well as for science and for technology. In the domain of **science and technology** the following needs must be met:

- Improvement of information linkages within the science research system and its linking to the economic system
- Linking the science research system to international systems;
- Becoming members of the European information network and the use of information services in the field of science and technology.

Modern information systems presuppose established mutual foundations for the contents, standards, logical structures of data, algorithms for the processing of data, data bases, card-bases, as well as technical compatibility for two-way mutual inter-connection and the same connection with foreign data-bases. It is, therefore, necessary:

- to accept the international standards for data-bases;
- to present Macedonian knowledge in international data-bases. This need should be realised in a most systematic manner by the information provider NUB (National and University Library) which is a centre for scientific and technological information;
- information inter-connections with the scientific and economic system. The information intermediary, the Information Centre of the Chamber of Commerce of Macedonia, should have a key role in this;
- the transformation of information and documentation centres in business information systems. This orientation will help with the information flow, and in promotion of knowledge and information. The opening of various information services is a modern trend: brokers, services in banking, insurance etc. In our practice info-management has not been developed, nor has a marketing approach to information been introduced.

Information systems development and the building of an information culture is a long and on-going process, indeed it is a part of the constant technological progress necessary to revitalize the Macedonian economy.

PART THREE

SECTORAL DEVELOPMENT STRATEGIES

INTRODUCTORY NOTES

I. A General Approach to the Structural Orientation of the Economy

In our pursuit of the future orientation of economic development, and especially that of a structural nature, we are faced with a number of difficulties and uncertainties. Prediction of the future in any domain as dynamic as that of economic development is quite hazardous. This is due to the fact that the future is always immeasurable. It springs from the distant past and is, to a great extent, under its influence. If in the course of this process the past itself is not free from contradictions – and in our case there are also significant structural discrepancies – the future can hardly rely on it.

At the same time technological challenges, the discovery of new technologies, new activities, new branches, new forms of production organisation and a new sector division are on a large scale. In the 1970s, economic science expanded its hitherto three-sector division of the economy to four sectors: 1) the agrarian sector as primary; 2) the industrial sector as secondary; 3) the service sector as tertiary; and 4) the computer science sector as a fourth.

In this respect, it is quite difficult to determine which branches and activities will decline and which will emerge; which new jobs will be created and which will disappear, what the educational system will be like and what professional qualifications will be required for the new jobs, etc. However, scientific research and practice in a number of countries give plenty of scope for a determination of certain global directions and tendencies in economic development. This encourages every country to define its priorities and the objectives of its development as global orientations and obligations in the achievement of the desired future.

Considerations regarding the strategic directions of the future structural development pose us significant dilemmas and tasks which result from the spasms of the economic processes which are faced with the seriousness of the current economic underdevelopment. Hence the unfavourable influence of the factors limiting development on the one hand, and on the other,

of the great economic and technological challenges that come from our environment and from the world economy.

In this respect, writing about the strategic orientation of structural development involves the mobilisation of the power of a vision of our economic future; the assessment of our aspirations as against our real potential and the boosting of global economic progress; the transcending of the old criteria and assessments of growth and the establishment of new ones in accordance with the objectives set for our future, etc. In the course of this process, it is imperative for our society to outmaneuver the stereotypical organisation and management of economic processes; the inertia in the approach to economic decision-making; the amorphous responsibility of the subjective factor within the full range of its professional and social hierarchy; the slavery to the traditional norms in the psychology of the individual as enterpreneur, producer and consumer. It is important in this respect to promote the creative force of enterpreneurial initiative as the force which rationalises, organises and manages production.

It is also necessary to abandon as soon as possible the long-standing view that the material factors, which are the result of the growing technological progress, are the only decisive factors in economic competition. We should turn instead to contemporary methods of management and maximal promotion of the creative forces as the basic objectives of development strategy.

In this respect, the notorious "technological gap" that grows ever wider between the economically developed and the insufficiently developed countries is primarily the result of poor higher education, of insubstantial scientific research, and also of an obvious subjective incompetence resulting from the lack of investment in human potential. Experts today rightly claim that being rich in raw materials is of secondary importance for the development of a country. In the costs of the finished product the price of the raw material is becoming a less important item. In the future, the principal difference between countries will lie in the value of the human capital, which actually dictates the technical capital. Hence, the need for the expansion of the educational network should be the basis for the strategic objectives of economic development, and above all technical education in the areas of supervision, management and competence in the operation of computer systems.

Thus the bridging of the "technological gap" is made possible and significantly easier by means of the bridging of the "managerial gap" whose objective should be the well-planned introduction of economic and technological changes within a rationally organised system of creative enterpreneu-

rial initiatives, while introducing into the process certain risky responsibilities.

The strategic objectives and orientations of structural development are closely linked to the existing and future, continually growing, needs of the market and the population. The system of objectives and the system of needs are inter-dependent. The more the economy is developed in a society, the greater are the needs for the achievement of large strategic objectives. The realisation of the adopted orientations and objectives for development quickly broadens our horizons. This finds expression in the further development of the system and the range of needs, i.e. in its transition into a system of a higher degree, in which new kinds of needs emerge for new, more important strategic objectives. These often serve as a springboard for future leaps in science, technology and enterpreneurial initiatives.

Today the world-wide experience in the development of the economy constantly discovers new integrated, cumulative processes which, above all, place in the foreground a concentration rather than a dispersal of the strategic objectives and solutions. Hence the basis of each long-term strategic objective of our future development should be the principle of the combining of the creative function of the state apparatus, the enterpreneur, and the organiser of investment initiatives. Together with the expert institutions, they should make possible a rational and efficient utilisation of production factors in the permanent process of the revitalisation and modernisation of material production.

This process of integration of all the forces of progress which are aimed at the renewal and expansion of production should be permanently present as a decisive factor in the realisation of any strategic objective for long-term development in any sector of the economic structure. The sooner we understand, and apply in practice, this historical inevitability, the faster we will pull out of economic underdevelopment.

This demands a rapid abandoning of the stereotypical dispersed approaches, typical of the trade and manufacture psychology, and the abandoning of the petty, unprofitable local interests that block the process of technological and economic integration. This process necessarily leads to national progress and the orientation of private initiative towards a stable and solid creative activity in profitable areas.

The existing situation in the economic sector development of the Republic of Macedonia reveals unbalanced and spontaneous processes in the formation of the economic structure. The previous basic orientation was that

of the promotion of industrial development without a satisfactory selective approach in the branch structure.

During that stage of development a need was imposed for the concentration of the investment process in a smaller number of large facilities whose efficiency could sharply be felt in the developmental characteristics of the economy. It is with these facilities that the phase of tackling the structural problems characteristic of the future development of the Macedonian economy has been entered upon.

In Macedonia, over almost the entire post-war period, the extensive model of development prevailed. This means that the policy for the expansion of production was implemented by means of the construction of new industrial facilities, acquisition of new agricultural land, and opening up of new mines, separating plants and smelteries in an ecologically unclean extraction industry. New power facilities were also built, such as hydroelectric power stations linked to artificial lakes, thermoelectric power stations linked to the opening up of new coal mines, etc. As part of this extensive model of development, numerous large infrastructural facilities were also built: roads, railways and airports, educational and research facilities, and health care facilities, as well as postal and many other administrative and communal facilities.

During the period of extensive development, a significant part of the resources was invested in the industrial sector, while other economic branches were of lesser importance. By 1966, more than two-thirds of gross economic investments were allotted to industry, falling to 52% in 1970, and rising once again to 60% in the period between 1986 and 1990. Until the 80s, the lion's share (about 60%) of the investments in the industrial sector was allotted to energetics and basic metals. In the period between 1981 and 1985, this amount decreased to 45%, and between 1986 and 1990 to 38.4%.

This investment structure clearly shows the achieved level of development. It reveals a continuation of the process of extensive development and the fact that the stage whose objective was to create the preconditions for intensive development remained unfinished. During this stage of development, the opportunity for the resolution of certain developmental discrepancies was missed at the price of high investments and high indebtedness abroad. This was a missed opportunity for the creation of an independent basis of power resources and raw materials, the building of a general developmental infrastructure, and the establishment of an individual accumulative basis as a prerequisite for entry into a new and higher course of development. This process was interrupted by a great economic crisis, which grew into a social and political one.

The long-standing extensive model of development on the one hand, and the suppression of the intensive model of development with imported technology at the time of its diffusion on the other, were the objective reasons for low effectiveness, especially in international trade. Here it is important to emphasise the devastating consequences, in both the investment and exploitation processes, of the disrespect for the economy of the time as a dimension which has had the most complex multiplying effect on economic efficiency. This is one of the gravest consequences suffered from the functioning of the development model that has been implemented thus far. The disrespect for temporal causality was given its economic price by the multiplication of the initial value of investments in production funds. It was expressed in differences between exchange rates, the depressed morale of the technical and technological structure, decreased structural flexibility, and unrealised effects - profits, prolonged employment. All of this bears the mark of overall civilisational belatedness.

During the 60s, after the stage of the creation of the preconditions for promoting development, the Republic of Macedonia saw an economic boom in some areas. This lasted, with certain interruptions, until the 80s, the period of crises, when its momentum and structural orientation were disrupted.

Although previous predictions had suggested that the stage of economic boom would end between 1985 and 1990, the devastating effect of the crisis and the phenomenon of inflation, which was present for more than fifteen years, and which struck our country at the crucial stage of its development, point to the fact that the unfavourable consequences of this crisis will remain over a long period of time. Unless a faster structural adjustment of the economy is provided for, the interrupted process of economic boom can hardly be completed in the first stage of long-term economic development, i.e. by 2002.

However, by coping with the critical blows, and with a swifter structural adjustment and revitalisation of the economy and its orientation towards technologically flexible and propulsive activities, the Republic of Macedonia can be expected to enter the mature stage of industrial development and the other economic sectors by the end of the first stage in 2002 and towards 2020. During this stage, the process of the introduction of computer technology in the social and economic development of the country will also take place. It can be claimed that computer technology is being modestly introduced into our economy as well, although we are separated by a gap of several generations of computer technologies applied in the developed European countries.

In the Republic of Macedonia, the stage of the post-industrial computerised society will arrive rather late. In our country microelectronics has not yet been developed, and it is the basis for the computerisation of development, comprising computer technology, robotics and machines with digital commands. Therefore, the development of microelectronics in any form represents the core of the future development of the computerised society. Our research allows us to conclude that today, in the electronics industry alone, the Republic of Macedonia is about ten years behind the Republic of Slovenia, and it, in turn, is some twenty years behind the industrially developed countries.

Judging from the present-day situation in the developed countries, which have boldly stepped into the computerised age as the highest stage of social and economic development on the one hand, and from the situation in our country on the other, it emerges according to our estimations, that the stage of the computerisation of our society and all the service and infrastructural activities can be expected in the middle period of the realisation of this strategy, that is, by about 2010.

II. Strategic Goals in Sector Development

The definition of the strategic objectives, orientations and priorities of structural development is not subject to the criteria of state planning, nor to strictly defined proportions and obligations regarding future development. The definition of the objectives and orientations of development is of an indicative nature. It involves a global insight into the objectives and orientations of development and a specific orientation and vision of our future.

On the basis of these assumptions, and bearing in mind the general criteria quoted above and the institutional frameworks on the one hand, and the tendencies in technological development in the world and the availability of developmental factors on the other, the global strategic commitment in the sector development of the Republic of Macedonia should consist of the following:

1. An increase in participation in the propulsive sector, including: the metalworking industry, electrical industry, parts of the electronics, chemical and pharmaceutical industries, industries which cater for the needs of the household (household appliances, glassware), etc. In this area a rapid modernisation of the existing facilities is required, as well as the building of export-oriented small and medium-sized ones.

2. Technological production effectuation is a group of sectors which are inter-connected, such as primary agricultural production, the part of the metalworking industry related to the manufacture of agricultural tools, a significant part of the chemical industry (pesticides, artificial fertilisers), food processing and the food industry, as well as trading which involves the buying up of farm produce and its distribution on the domestic and, especially, on the foreign market. It is necessary to render this domain capable of the production of health foods. This, in turn, will provide better opportunities for export, while at the same time efforts should be made to introduce internationally recognised standards of product quality. This also calls for the hiring of adequate and competent managerial staff which would provide efficient service in this domain.

3. A decrease in the participation of the basic raw materials sector, which does not fully correspond to the available resources, in the forming of the GDP, and the provision of an environment for the modernisation and development of export-oriented branches and activities.

4. Faced with the social problem of high unemployment, a policy of increased employment is imperative in the initial phases of the implementation of the strategy for economic development. In this sense, we see as potentially prosperous the maintaining of the development and modernisation of the textile, tobacco, shoemaking and timber industries, as well as the development of the agrarian, service and construction sectors as significant absorbers of the labour force. Here a compromise is necessary between employment and the technological challenge. Thus technological modernisation should not be neglected in these branches either, if competitiveness is to be maintained. However, the criterion of labour intensity in our economic development should be respected as well.

In the first stages of the implementation of this strategy such an orientation will not render us competitive and capable of joining the European economic structures in a sense which implies higher profitability. This is the price we have to pay for our high unemployment rate and insufficient economic development.

5. There are no economically feasible grounds for the expansion of the existing metallurgical base. It should be targeted instead towards the construction of propulsive small and medium-sized companies, either on its metal base or on the secondary metallurgical products. In this manner, the existing lower phases in the extraction industry, which today are not profitable enough, would be bridged. For the achievement of this objective, feasibility

studies should be prepared which would attract investments from foreign partners.

6. Macedonia possesses a wide range of non-metal resources. They have been sufficiently geologically explored, and their physical and chemical qualities and exploitation potential have been confirmed. A new dynamics in the development of the non-metal industry in the Republic of Macedonia is expected to be achieved through a system of concessions and partnership relations with foreign companies.

7. In agriculture, the production of industrial cultures and fodder is insufficient, while a number of cattle-breeding products are deficient. Agricultural land is inefficiently exploited and there is a tendency towards its fragmentation. The use of fertilizers and pesticides, quality seed and planting material is sub-optimal, which results in low yields per unit of product and low productivity per head of cattle.

In order to increase agricultural production, certain criteria have to be met for an optimal utilisation of land and faster production growth, and especially in the improvement of cattle-breeding. On the basis of the comparative advantages, the production in this sector should provide competitive export surpluses and. at the same time, respect the European quality standards.

8. Developmental experience in a large number of countries confirms a high level of expansion in the service sector, both with respect to high employment (more than 50% of total employment) and in the participation in the GDP.

Therefore the service sector has an important role in this strategy and, above all, in the computerisation of the economy and the society in general. It stimulates the development of different kinds of services in the service sector: technological, market, marketing, organisational and managerial know-how, consulting, engineering, etc.

With the raising of the technical level and the growth of labour productivity, and, with this, an increase in the purchasing power of the population, extensive opportunities emerge for higher employment in a number of service activities within the network of small and medium-sized companies. This process will accelerate the general economic development and improve the quality of life.

9. The Republic of Macedonia is highly deficient in energetics, and this is a fact that it will have to face, particularly after 2010. Therefore, one of the principal objectives of long-term economic development is the dis-

covery of the most economical sources of energy and of promoters of investment enterprise. This requires timely and detailed research in the area of energetics, bearing in mind that the elimination of its restrictive influence is a strategic priority in future development. In this respect, we should implement a policy for the saving of energy, i.e. its most rational exploitation in consumption.[13]

10. Of equal importance is the water deficiency in the Republic of Macedonia. Growing economic and urban development has imposed the need for a rational approach in the exploitation of water resources. The available water resources in Macedonia are regionally disproportionally allocated (abundant in the western regions and highly deficient in the eastern.). Therefore solutions should be found for the water supply in the eastern regions, which, in turn, will require higher investment.

11. The Republic of Macedonia is experiencing serious ecological problems. The aggressive impact of waste materials, water and gases requires serious investments in their elimination and an adequate policy for the protection of the environment. This will be one of the important objectives which will have to attract the attention of the state in the future. At the same time, a system should be built in which every company, as a polluter, should cover the expenses of ecological investment. This means that the principle "those who pollute pay" should be accepted (P.P.P, or "polluter pays principle").

12. An important objective for the long-term development of Macedonia is, of course, its road and railway and telecommunications linking with the neighbouring countries and the modernisation of the existing transportation infrastructure. Of primary importance here is the need for the linking of the major trans-Balkan east-west routes.

13. Although changes in the ownership structure of the economy of the Republic of Macedonia had begun prior to its establishment as an inde-

[13] Frequently and over a long period, the promoters of development policy have been faced with the dilemma regarding the long-term prospects of the basic mining and metallurgical facilities. It is well-known that these facilities are highly intensive utilisers of energy and capital investment, which are the two most deficient domestic development factors. In addition, electric power is transmitted to them not at an economic but at a subsidised price. On the other hand, it is through these enterprises that the available domestic mineral resources are valorised, while they also employ a significant number of workers. They also hold an important position in the external economic sector of our country as net-exporters and are the basis for a number of metalworking facilities. Therefore any sustainable commitment regarding this problem should be based on thorough export analysis.

pendent state,[14] they gained in intensity and complexity only in the period that followed. Ownership transformation is being carried out on two bases: with the establishment of new private businesses and with the privatisation of the existing state enterprises.

The changes in the ownership and production structures have played an extremely significant role in the overall transformation processes during the period of transition. The ownership and production restructuring are two key and mutually interdependent components of the transition of the Macedonian economy.

In the period from 1991 to 1995 the ownership restructuring of the economy occupied a focal position. There was a large rise in the number of private companies, employment in the private sector expanded and this sector's participation in the GDP of the country.

– The past years have been characterised by a rapid growth in the number of newly-established private companies. Most of these businesses, however, are small and based on self-employment. In terms of sectors covered, the majority of these enterprises are concentrated in the commercial sector (see Table 15). The private sector's share in the GNP is continually on the rise and the number of employees in private companies is also growing at a relatively high pace (at an average annual rate of app. 10%), unlike the number of employees in the public sector where this trend is negative. At the same time the liquidation rate is high. It has been estimated that of all newly-formed businesses about one third remain active over a long period of time.

– As has been set out in detail in the section on privatisation, radical changes within this process have also been achieved on the basis of ownership transformation of the existing enterprises run on state capital. The ownership transformation process particularly gained in intensity once the systemic and institutional prerequisites had been provided following the adoption of the Act on the Transformation of Enterprises With State Capital and establishment of the Agency for the implementation of this Act.

In order to intensify the privatization process it has been planned to regulate secondary trading in stocks and to review judicial and non-judicial mechanisms for settling business disputes and speeding up bankruptcy procedures. The enactment of the remaining acts of law conducive to speeding

[14] The number of newly-established private businesses rose from 34,100 in 1992 to 86,700 by 31st July 1996. Of these, 61.5% are in commerce, 9.7% in industry and mining, 6.1% in financial and other services, 4.9% in crafts and trades, 4% in construction and 4.9% in transport and communications.

up privatization and the creation of a market-oriented economy has been initiated (Denationalization Act, Act on the Utilization of Farm Land, Land Ownership Act, Bankruptcy and Liquidation Act, Competition Act).

Table 15

Categorization of businesses according to ownership – overall figures and those relating to industry and trade

– number of businesses

	1992			1996		
	Total	**Industry**	**Trade**	**Total**	**Industry**	**Trade**
Total:	**37,232**	**3,612**	**23,706**	**90,474**	**8,829**	**55,370**
- public	1,224	244	386	1,182	212	361
- private	34,138	3,095	22,812	86,756	8,227	54,325
- cooperative	795	5	80	1,055	15	107
- joint	1,073	268	428	1,455	371	577
- other	2	–	–	26	4	–

– structure in %

Total:	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
– public	3.8	6.8	1.7	1.3	2.4	0.7
– private	91.2	85.7	96.2	95.9	93.2	98.1
– cooperative	2.1	0.1	0.3	1.2	0.2	0.2
– joint	2.9	7.4	1.8	1.6	4.2	1.0

Source: National Statistics Office of the Republic of Macedonia.

III. Structural Problems Within the Economy

The marked preference for industrialization in the past occurred in conditions of unsynchronized development of mutually dependent production – not only between specific commercial fields but also within branches of industry. Such conditions, complemented by other problems emerging in the 80s and especially after 1990, have led to the insufficient exploitation of facilities, the deterioration of qualitative factors of economic activity and a palpable decreasing in production.

Over a considerable period of time the Republic of Macedonia had been concentrating on expanding facilities within primary industrial stages – characterized by high capital intensity and relying on limited natural resources while there was a lack of any marked export orientation. This inade-

quate economic and development policy of the past has conditioned the creation of a less-than-ideal, inflexible and extensive structure incorporating an unfavourable combination of production and development factors – and has led to a low level of profitability within the industrial sector. At the same time such a production orientation in conditions of an abundant work force and a lack of capital has led to a high growth in unemployment.

Therefore restructuring is one of the key prerequisites for the achievement of the basic aims of a strategy for the rational and efficient activation of resources, for a greater use of the production capacities, for more dynamic export activity, for a more productive engagement of the work-capable population and for an absorption of technological progress.

The restructuring of the economy is conditional upon the current level of development, available factors and development conditions. Changes should be targeted at adapting and modernizing the industrial sector, at updating and intensifying agricultural production, at a speedier and qualitative development of the service sector, and at an improvement of the infrastructure.

The basic approach to the achievement of these things should be a relativisation of existing and investment in new facilities, a more extensive application of the achievements of technical and technological progress, a marked export orientation, a greater incorporation into the systems of the world economy, more intensive investment in the basic funds – particularly in up-to-date equipment, and effective support of the small business economy.

*

Bearing in mind the current situation, available resources and factors, as well as the trends and assumptions as regards future development, it is reckoned that in the coming period production will revive and conditions for a stable and continuous growth and a modernization of the economy will be created.

The scenario of the macro-economic model foresees a growth of the GDP of the entire economy over the period of 1997 to 2002 at a pace facilitating the achievement by the Republic of Macedonia of the 1989 GDP (listed as the last stable year prior to the intensification of the political crisis in Former Yugoslavia) during the first years of the next decade.

The share of the private sector within the ownership structure of the economy can realistically be expected to increase to 90% of the GDP by the year 2020.

Within the production structure it is expected that the part played by the service activities will increase, so that in the year 2020 these will participate with a share of approximately 60% in the GDP. At the same time the shares of agricultural and industrial production will probably be approximately 30–33% and 10–12% respectively (see Table 16.).

Table 16

GDP structure including VAT on the GDP

at 1995 prices – in %

	1995	2002	2020
	New methodology*	New methodology	New methodology
Total:	100.0	100.0	100.0
Industry	30.7	32.0	33.0
Agriculture	12.9	12.0	10.0
Service Sector	56.4	56.0	57.0

* SNA (System of National Accounts) Methodology.

1. INDUSTRIAL SECTOR

I. Basic Features of Current Situation

The industrial sector entered the transitional period with stagnant tendencies in production, an unfavourable production structure, a high level of technology depreciation, insufficient export output, a high dependence on imports, a long-term lack of investments, operational losses and high over-employment.

The industrial structure is marked by the production of raw materials and repro-materials (in 1994 they constituted about one third). A number of facilities have been built in the branches of ferrous and non-ferrous metallurgy, alkali chemistry, the production of textile yarns and fabrics and in other branches of raw material production. These facilities rely considerably on imports. Their products were predominantly intended to meet the needs of the economy of the former Yugoslav market.

Ferrous metallurgy has been marked by relatively large steel mills producing hot and cold rolled sheets and strips, welded pipes and cold rolled profile beams. This area of production has not been in step with the development of the primary area. Therefore it has been necessary to import considerable quantities of steel slabs, or enter into loan work, i.e. to complete the production process for foreign partners. In spite of the fact that the production process for several types of sheets and strips has been mastered, the variety of these products fails to meet the demands of the complex consisting of equipment production and of lasting consumer goods. Thus certain types of steel are still being imported.

Non-ferrous metallurgy is characterised by the construction of mining facilities producing lead, zinc and copper ore. This has been complemented by a lead and zinc smelting works and several processing facilities in order to achieve the valorization of these metals. The content of the ores obtained, however, does not correspond to the production capacity of the smelting works. This entails a surplus of lead concentrate and a deficiency of zinc concentrate. The former is being processed in neighbouring countries, while the latter is being covered via imports. Copper concentrate is also being processed in neighbouring states.

The production of iron alloys is based on the import of chrome, coke and other raw materials. The products are then exported as metal repro-materials.

There are also mining and smelting works capacities for the production of nickel in the form of ferro-nickel, which is not processed into final products in Macedonia.

Due to the absence or insufficiency of processing facilities, most of the metals are being exported as primary products. This entails a lack of valorization effects.

The aluminum needs for the available processing capacities are met by means of import.

The chemical industry has several significant facilities. The products of this branch contribute to the development of several economic sectors (agriculture, civil engineering, textiles, timber etc.), though in large measure this production depends on the import of raw materials and repro-materials. Intermediary and final raw materials are almost exclusively imported to maintain the production of synthetic fibes, artificial substances, fertilizers, pesticides, etc. This particularly applies to the import of actylo-nitrite, dimethyl terephthalate, ethylene-glycol and vinyl acetate.

Production from the chemicals industry in the form of repro-materials is only partly processed in Macedonia. Most of the products are exported, particularly to markets in the former Yugoslavia.

The textile industry, which is dominant in the structure, is characterized by numerous facilities relying on imported raw materials (cotton, wool), or on the providing of services to foreign partners (loan work). Enterprises within the shoe manufacturing and timber industries are also heavily dependent upon imported raw materials. A low level of profitability is a further trait of these three labour-intensive branches.

Such an economic structure, in unfavourable material and financial conditions and restrictions and in an unfavourable external situation, has led to a drastic decrease in industrial production of more than 50% in comparison to 1989. In the period from 1991 to 1995, the reduction in production was at an average real rate of 13% (see Table 17).

During this period the number of employees in the industrial sector decreased at an average annual rate of 8%, as a result of production, and particularly of ownership, restructuring. Investments in basic funds have also shown a falling-off at a real annual average rate of 5%. The industrial sector has also been suffering from disinvestment over a longer period of time.

Table 17

*Production dynamics of industry in countries in transition**

– rates of alteration
– preceding year 100%

	1992	1993	1994	1995 (I–VI)
Total	-14.8	-12.4	-15.4	-3.3
- East European Countries	-9.9	-3.3	5.6	8.3
- Commonwealth of Independent States	-18.0	-12.0	-22.0	-8.1
- Baltic states	-33.4	-32.0	-16.6	-3.6
- Republic of Macedonia	-15.8	-14.6	-6.3	-11.0

* Source: Economic Commission for Europe, Economic Bulletin for Europe, Geneva, Volume 47/1995
For the Republic of Macedonia: The Statistical Office of the Republic of Macedonia (GDP at 1972 prices).

Sanctions imposed on FR Yugoslavia by the UN and the embargo by the Republic of Greece were suspended towards the close of 1995. Agreements on cooperation were reached with certain financial and other international organisations, and bilateral agreements were signed with several countries throughout the world. These have created opportunities for increasing export and trade; for obtaining loans and expanding other forms of cooperation with foreign partners.

After several years of decrease, industrial production increased by a real rate of 3.1% in 1996 compared to the previous year.

II. Basic Preconditions and Directions for Development

The basic development orientation in the industrial sector takes the form of a reorientation towards revival and stable growth of production. This would primarily be achieved by increasing economic efficiency, and by a modernisation in management and technology.

The new economic system opens up opportunities to introduce different forms of organisation in the industrial sector by introducing a market-orientated evaluation of capital, labour, know-how, innovations, management skills and entrepreneurship.

In stage one, lasting until the year 2002, efforts will be made to increase production by revitalising and restructuring existing production facilities, and by modernizing and developing small and medium-sized businesses.

This will have to be paralleled by a stronger export orientation, an expansion of foreign trade, of credit financing and other types of cooperation with foreign partners, as well as the introduction of technical innovations and the increasing of investments and efficiency in the economic sector. The expected production increase will be a result of entrepreneurial initiatives and of operations conducted by expert executives in the management, marketing and technological development sectors as well as of discipline and productivity among the labour force engaged in the production process.

It has been estimated that the external surroundings affecting the country will radically improve.

The Cooperation Agreement signed with the European Union creates room and conditions for increasing trade and other forms of cooperation with EU member-states. The imminent admission into the World Trade Organisation (WTO) will create conditions for the furthering of trade and cooperation with a large number of countries throughout the world, and particularly for the expansion of trade and cooperation with neighbouring states.

The outlined conditions and premises for this sort of development, however, will be constantly burdened by the following problems: 1) the existing unfavourable production structure; 2) outdated equipment; 3) over-employment in the economic sector; 4) an insufficient orientation towards export; 5) low productivity and profitability in a considerable number of enterprises, etc. These and other problems complicate development conditions and are likely to limit possible outcomes, particularly during this first stage up to 2002, during the process of basic adaptation necessary for the overcoming of structural and management problems.

Throughout the initial phase of the forthcoming period the development of the industrial and agricultural industry sectors will depend on the rational allocation and combining of available resources, in addition to the utilizing of existing production facilities.

1. The most substantial potential for reviving production is seen in existing unused facilities. At present their level of utilization amounts to app. 30% in the industrial sector. Revitalisation, technical and technological updating of basic means through innovation and improvement in productivity will create conditions favourable to overcoming this serious problem will be created.

2. Development in the forthcoming period, especially after the year 2002, will largely rely on the effects of structural and technological changes. The updating of technology and techniques will facilitate the restructuring of

production with higher levels of processing, expansion of exports and an increase in profitability. The processes of technology and management modernization will expedite the transition from an extensive into intensive development, which is of particular significance to stable and continuous growth.

The updating of technology after the year 2002 will focus on the more propulsive branches such as the metal-processing industry, the electrical and electronics industry, the chemical and pharmaceutical industries and the production of household goods. This sort of progress generates conditions conducive to the introduction and expansion of information technologies, flexible technology, the technology of new materials, biotechnologies, energy technologies, etc.

3. Exports are a key factor in increasing production and expanding the market for goods and services, in order to facilitate the meeting of import demands and improve the country's international liquidity. After the year 2002, this injection of dynamism into the export sector should entail an increased inflow of foreign capital. *The premise, and the necessity, is that exports increase through a more intensive dynamics of production.*

4. The lack of capital for investments in basic and ongoing working capital throughout these years is one of the basic and most limiting, i.e. critical, factors in the development of the Republic of Macedonia – and will continue to be so, especially during the initial stage of development.

By mobilizing all internal potentials and rationally using foreign accumulation, the industrial sector should gradually emerge from the disinvestment zone and achieve higher growth rates towards the end of stage one (2002). After this period, and with a more significant inflow of foreign capital, mainly in the shape of direct investments and joint ventures based on a stimulative system of concessions, it is expected that investments in fixed funds, above all in equipment, in this sector will increase significantly.

5. The Republic of Macedonia is relatively poor in terms of natural resources, especially as regards energy sources, high-quality mineral and forestry resources. Geological and other research nevertheless indicates that the country has a variety of ore reserves, which have been examined to varying extents in order to assess possible exploitation. This applies particularly to several types of non-metals with indisputable possibilities of productive valorisation. The same can be said with respect to certain metals (lead, copper).

Significant potentials exist in the agricultural sector (crop-farming as well as livestock breeding). These may be engaged in the processing industry and the production of organic food.

6. Possibilities of increasing production in the industrial sector are created by the vertical link-up of already existing and new primary production and the branches within the final sector. This refers above all to metallurgy and the production of durable consumer goods, to the chemical and textile industries, to the processing of leather, the manufacturing of shoes, livestock production, primary agricultural produce and its processing. On these bases a more functional economic structure may be created characterized by higher stages of processing and an increase in competitiveness on foreign markets will be achieved. This will generate conditions favourable to industrial and export specialisation.

7. Personnel with their level of expertise and knowledge, as well as their capacity to introduce new technologies, are one of the key factors with respect to increasing efficiency within the economic sector and expediting development. The Republic of Macedonia has significant and high quality human resources at its disposal among its work force and those seeking employment. This particularly applies to the abundant inflow of educated and qualified personnel.

Half of the present contingent of unemployed people are educated and young, a force to be counted on in the future. The restructuring of the educational system will also secure a more appropriate educated and expert profile of staff personnel. In this context it is of particular importance to produce top specialists capable of mastering state-of-the-art technologies and conducting a selective transfer of technological and managerial know-how from abroad.

III. Development of the Production Sector

The revival and mobilizing of the industrial sector will continue to be the main agent of economic growth and development. As such it will affect the rekindling of activity in other economic sectors and branches.

This sector will also develop through a new ownership structure and a radical adaptation of production to market conditions. The transformation of ownership should be completed by the end of this century, while production will increasingly be dominated by export-oriented processing branches, with an application of more efficient information and production technologies and a particular emphasis on labour-intensive sectors. More detailed treatment of the development potentials of specific industrial complexes are set out in the following pages and they are ordered according to statistical clas-

sification and not according to the importance of the specific branches for development).

1) *The Production of Basic Metals* may be achieved through the revitalization of existing mineral and metallurgy facilities and through the introduction of new technologies and processing methods in order to improve the quality of existing and to introduce the production of new products, to lower expenditure on materials and energy, to manage the work processes more successfully and to ensure a more acceptable regime of environmental protection.

At the same time it will be necessary to re-examine the economic basis for the further production of certain metals, from the aspects of available resources, the consumption of energy and that of other imported components, the pollution of the environment and the balance of payments effects from exports.

Throughout the forthcoming period it may be possible to create conditions to expand facilities by building smaller lead and copper smelting works, above all through joint ventures with foreign partners, direct foreign investments and concessions. The construction of new small-scale smelting works should be achieved through the introduction of new, environmentally safe technologies. It has also been estimated that mineral facilities may be expanded to increase the exploitation of existing mineral ores via concessions.

2) *The Metal Processing Industry Complex*, in spite of its insignificant participation in the present industrial structure, should be a more significant segment of industrial modernization in the forthcoming period.

The expansion of production can rely on the increased utilization of existing facilities and know-how, through an ongoing process of the revitalization of changes in technology, through the introduction of new equipment, through expansion of business links and technical cooperation with companies both within the country and abroad and, of course, an increased use of the creativity of expert and management personnel. The placement of these products is of relevance to both the domestic and the foreign markets.

The technical and technological development of this complex would have to focus on mastering the operation of more complex implements and machinery, characterized by a high level of precision and possibilities. This should be achieved through our own means and expertise, and in collaboration with well-known firms present on the world market.

Modernizing the metal processing industry would lead to the adapting of existing and to the introduction of new equipment, with an increased level of productivity, flexibility and automatic operating.

The process of revitalising and modernizing *Machine Production* should be directed towards improving and expanding production equipment and processing machinery in order to manufacture processing equipment for known buyers and in order to obtain licensed cooperation with foreign partners.

Particular attention needs to be paid to developing the production of household appliances (white technology) and hand-held electrical equipment in large quantities, based on licenses and the design and functionality of well-known companies.

The *Electronics Sector* is another whose development may be intensified through the specializing of domestic businesses, and through partnership and cooperation with well-known international firms in order to ensure an increased participation of electronics within the production process, production lines and the functioning of complete objects.

3) The development of the *Chemical Industry* can be achieved through the production and technological modernisation of existing facilities, through increased commercial cooperation with foreign partners and through the forming of small and medium-sized businesses.

The development of the basic alkali chemical industry should rely completely on the revitalisation of existing facilities. An expansion of production capacities would raise import dependence and have a negative impact on the balance of payments. It would also lead to long-term structural divergences in this sector of the chemical industry.

After the year 2002 it is believed that this industry will facilitate the establishment of minor production facilities to meet the needs of the existing processing sectors in terms of raw materials and to increase exports. It should also increase its exports and thus improve the hard currency balance and operational cost efficiency. This expansion of facilities may also be achieved by increasing the variety of washing products, personal hygiene products and cosmetics, as well as pharmaceutical supplies, plastic goods, etc.

Bases exist in the processing sector of the chemical industry which may facilitate the evolving of small and medium-sized businesses. This is an option of considerable significance to this industrial branch, which would be based on the real possibilities and needs of the economy.

At the same time it should be possible to create conditions to introduce new technologies in the production of chemical products, and new production programmes based on bio-technical processes – above all in order to

meet the demands for food production and the pharmaceutical industry. Such an increased production can only be achieved in competitive market conditions and thorough better organized approaches to the entrepreneurial initiatives of potential investors.

4) The development of the *Non-Metals and Construction Materials Industries* would create conditions favourable to a greater exploitation and processing of non-metal raw materials and decorative stone, as the Republic of Macedonia is in a favourable position due to its abundance of resources and inexpensive labour. This would be achieved through the revitalisation and modernization of mining and processing capacities, as well as their expansion, in order to secure a greater degree of finalisation of the raw materials and the generating of net hard currency revenues.

The processing of non-metal raw materials and decorative stones will be marked by an improvement in product variety and quality, and by introducing new products of a design and standards sought by both the domestic and foreign markets. The production of construction materials should also be tailored to suit the needs of the contemporary construction industry for fast and high-quality work, while bearing in mind the ecological factors.

5) In the *Timber Processing Industry* the revitalisation of existing processing facilities must concentrate on improving the design and quality of final products in order to increase their competitiveness. This will require production specialization as well as the organizing of small-scale and flexible serial production. To achieve this, particular attention will have to be paid to marketing, modelling, commercial advertising and sales.

6) The *Textiles and Leather* goods complex, though of low profitability, due to its high labour intensity and export orientation belongs among the priority areas for revitalisation and modernization of existing technologies already in use. Due to the fact that the textile and leather industry in Macedonia employs about 25% of the labour force, it is widely placed throughout the Republic with a rich assortment of products and is suitable for private initiatives.

The production of textile yarns and fabrics, of finished textile products, of leather and fur goods and of leather footwear and accessories, with its low capital intensiveness, low energy dependence, high labour intensiveness, the possibility of dispersion and a marked export orientation may be considered as an economically attractive basis for further technological modernisation and the construction of smaller facilities for a higher degree of finalisation and production.

The modernization of existing facilities is a priority issue in the textile industry, in view of their out-dated technology and equipment and the need to tailor production to fit the needs of the market in this direction. A process of ownership transformation is under way which will improve the management and organisation of the companies in question. Based on such premises textile and leather goods production could increase through an extension of cooperation with foreign partners in all domains.

The revitalisation of the basic sector within the textile industry will enrich the variety of products (yarns of higher numeration) and increase standardisation and product quality in accordance with international market criteria. It has been assessed that new facilities will not be constructed in this sector of the textile industry over the next five to seven years, which is why some of the synthetic fibres will continue to be imported as repro-materials.

Bearing in mind the insufficiency of raw materials available and the high dependence on import, one cannot expect an expansion of production facilities within the basic segment of the leather goods and footwear industry in the near future.

The modernisation and updating of leather footwear and accessories production should be achieved by modernising existing facilities and increasing the application of creative components, such as design, modelling and marketing.

7) The development of the *Agro-Industrial Complex* is an attractive part of the economy because of the fact that it provides food for the population, export surpluses and a net foreign currency inflow as well as engaging the labour force productively.

A modernising of facilities in the *Flour-milling and Bakery Industry* would be conducive to the enlarging of product variety and product quality in order to meet the growing needs of the population in accordance with global nutrition trends and to adopting new products which may be exported. In the flour-milling industry, in view of the raw material basis and the utilization of existing facilities, a further construction of new facilities would not prove economically viable.

Reconstructing and modernising facilities for the processing of vegetables and fruit should focus on introducing new technological production procedures and aseptic packaging methods. On these grounds it will be possible to master more sophisticated processing methods and enrich the range of products with frozen or dry vegetables and seasoning herbs, fruit extracts, aromas and colourings, fruit milkshakes, tea blends, etc.

The resource base and export potential in terms of organic food pose a challenge as regards the expansion of vegetable- and fruit-processing facilities, through the establishing of small-scale processing plants adaptable to market demands.

By revitalising dairy facilities it will become possible to accept and process all offered amounts of milk. Processing methods should entail the introduction of new high-quality product ranges and suitable packaging to meet the requirements of the domestic and foreign markets.

In the case of export abbatoirs revitalisation in the form of taking on board new assortments designed for the market is necessary.

In the meat-production industry, in order to achieve a rational utilization of poultry farms, investment in state-of-the-art facilities and multipurpose livestock pounds is a prerequisite.

By 2002 the reconstruction and modernisation of beverage production facilities should entail production stabilization. Wine production, particularly when export-oriented, should be achieved by producing high-quality wines in bottles of contemporary design.

The reconstruction and modernisation of tobacco-processing facilities should concentrate on maintaining production and on enlarging the range of products corresponding to the demands of the domestic, and particularly the foreign, markets. Development in this industrial branch is aimed at establishing international cooperation in terms of technical equipment, technology and marketing.

In terms of quantity, variety, diversity and efficiency small and medium-sized businesses have become a key element in the strengthening of the national economy and its development. These businesses will develop in all fields where production organisation or the market requires compact, highly productive organisation structures which quickly adapt to market needs. This particularly applies to suppliers of parts and half-finished products catering for major enterprises on a cooperative basis during the completion of small series and product lines meeting specific requirements.

The privatization and restructuring process in large enterprises will entail the formation of small profitable businesses where the structuring of the production process requires this. This should be complemented by subcontractor relations between large and small businesses.

Small and medium-sized businesses are to emerge and operate in all branches of the industrial sector, and in some sectors they will function as the main agents in expediting development. It is estimated that more intense de-

velopment of small and medium-sized businesses will be implemented in the electrical, the metal-working and electronics industries.

*

Setting out from the basic characteristics of the situation and orientations, it becomes realistic to expect that conditions conducive to production revival and to a more stable and consistent economic development will be created with the following general dynamics and structures.

Table 18

Industrial Development

real rates of change (in%)

	1991–1995	1996–2002	2002–2010	2011–2020
GNP	-12.9	3.0	6.0	8.0
Exports (excl. loan contracts)	1.2	4.0	7.0	9.0
Investments	-5.1	8.5	8.0	9.0
Employment	-8.0	1.5	4.0	6.0

2. AGRARIAN SECTOR

I. Current State of the Agrarian Population and of the Natural Conditions

A full decade before the Republic of Macedonia acquired its independence, its agriculture was already marked by a constant moderate increase and a virtually unvarying 14 to 16% share in the GNP of the Republic. Thereafter, although there has been no significant increase, owing to the considerable recession in industry and in the other economic sectors, the share of agriculture has nevertheless risen to above 20%.

The agricultural population in the period immediately after World War II accounted for 72% (825,000) of the total population (census of 1948). In the subsequent period migration from the villages into the towns escalated, so that the percentage of the agricultural population dropped to 22% (392,293) in 1981, and in 1991 it dropped further to 14.7% (300,000). According to the last census of 1994, the agricultural population accounted for 11.79% (226,498) of the total population.

40% (approximately 91,000) of the agricultural population in 1994 fall into the category of active population and can be considered as a work force organised in family agricultural units.

The Republic of Macedonia, covering a total territory of 25,713 square kilometres, is situated in the southern part of the temperate climatic zone and borders on the sub-tropical zone. It is characterised by an extremely heterogeneous relief with mountains accounting for 2/3, and valley basins for 1/3 of the total territory.

The total agricultural land surface amounts to 1,319,000 ha. (average 1985–94). Arable land accounts for 665,000 ha. and is almost entirely in the valley basins. Pasture-land accounts for 649,000 ha. (average 1985–94), 36.5% of which is mountain and highland pasture and approximately 63.5% on rolling hilly terrain in the valley basins.

The arable land is almost completely in the sub-mediterranean and continental agro-climatic regions, whereas pastures dominate in the mountain regions. The sub-mediterranean and continental regions are characterised by **drought, which is the principal limiting factor in the utilisation of the potential for a wider assortment and production intensity**. The irrigation systems built so far cover a total territory of 122,634 ha., but in the period from 1988 to 1994 only 50–69% of this territory on average was irrigated annually. According to the Spatial Plan, there are possibilities for irrigation of 291,558 ha.

Mountain soil predominates in Macedonia – it accounts for 1,655,227 ha. or approximately 64.4% of all the land, whereas the soil in the valleys accounts for a total of 916,073 ha. or 36%. Approximately 665,000 ha. are arable land, and approximately 390,000 ha. are lowland pastures or land put to other, non-agricultural uses.

According to the currently incomplete soil survey and valuation, soil types have been classified in seven classes. Approximately 290,000 ha. are class I and class II, 450,000 ha. are class III, and 195,000 ha. are class IV. Classes V, VI and VII consist mainly of uncultivable mountain soil.

The degradation of the soil is a very serious problem. The gravest issue is **erosion caused by water** – in a stronger or milder form it is to be encountered in 37% of the territory of the Republic of Macedonia.

Agricultural Structure

– In 1993, prior to the beginning of the process of privatisation of the agricultural sector, public farms production (companies and cooperatives) accounted for 23.4%, and private farm units for 76.6% of the GNP. The public sector's share in the value of the total agricultural market surpluses is 67%, which is double that of private farms. The private sector owns approx. 70% of the arable land and more than 90% of the tractors in the Republic.

In contrast to the decrease in the number of the active agricultural population, there has been an increase in the number of private farms; as a result, the **average size of the land property has been decreasing**: 3.14, (1960); 2.04 (1980); and 1.29 ha. (1994) per family farm. The private farms' land properties are split into many separate plots per household (an average of 7.7), each with an average size of 0.14 ha. This proprietary structure

largely limits the profitability and the competitiveness of the private farming units.

The public agricultural enterprises (companies and cooperatives), 164 in number, own nearly 50% of the total agricultural land, or **30% of the arable land**. Their holdings range from land of under 50 ha. (27.4% in 1994) to more than 5,000 ha. (15.2%).

In the past period it was the public agricultural companies which, thanks to their better equipment with modern means of production and qualified staff, were the promoters of modernisation of the total agricultural production.

– The diversity of natural conditions in the Republic of Macedonia enables a varied crop production.

Approximately 50% of the total agricultural land (nearly 1,319,000 ha.) is arable land, and the rest is pasture. The largest part, or approximately 83% of the arable land, consists of ploughed fields and market gardens, while approx. 3% is orchard, approx. 5% vineyards and approx. 8% meadows. 10% of the ploughed fields and the market gardens are used for the production of market garden products, and the remaining 90% for crops. Approximately 170,000 ha. per year remain as fallow and uncultivated land.

The structure of field crops is dominated by grains and cereals which account for approximately 235,000 ha. (1985–94), followed by industrial crops (approximately 56,000 ha.) and fodder (approx. 30,000 ha.).

In the past decade livestock production has been marked by a downward trend, with an average rate of –4.5% in the public agricultural sector and –11.4% in the private sector. It should be noted that 84% of the total head of livestock are owned by private farm units (the public sector accounts for only 16%). The results achieved in the production of both sectors indicate that, on average, livestock breeding is more efficient in public agricultural companies than in private farm units.

II. Agrarian Policy

Prices and Subsidies

The agricultural policy on protective prices, bonuses, refunds and loans, exercised in the preceding period, continued even after the acquisition of independence, but with considerably lower levels of overall subsidies (in

1994, the value of subsidies was 4.3% of the value of the agricultural production), as can be seen from the table below[15]

Table 19

Subsidies in agriculture before and after the gaining of independence by the Republic of Macedonia

Year	1991*	1992	1993	1994*	1995*	1996*
Structure	100	100	100		100	100
Bonuses	11,48	29,42	31,12		64,38	61,94
Refunds	14,27	42,13	28,78		15,48	31,34
Refunds for loans	63,64	23,54	36,09		12,18	–
Inducement programmes	10,61	4,91	3,96		7,96	6,72
Total (in US$ 000)**	179,363	19,984	35,028	48,366	31,068	17,179
Index	100	11	20	26	17	10

* Adjustments made according to the final account of the Ministry of Agriculture, Forestry and Water Utilisation

** Exchange rates for US$1: 1991 – 0.2 dinars; 1992 – 5.1 din.; 1993 – 23.6 denars; 1994 – 43.3 denars; 1995 – 37 denars; 1996 – 39 denars.

It has been estimated that the agricultural policy practised so far has not contributed sufficiently to the stabilisation of the production, prices and market placement of agricultural products. In the future, it will have to support the concept of agricultural development in conditions of total privatisation. With regard to subsidies, the World Trade Organisation's (WTO) criteria[16] for developing countries will have to be accepted.

[15] Whereas agriculture in the EU in, for example, 1994 was on average protected by 17%, and in neighbouring Greece by 36.6% of its value, through a variety of subsidizing programmes. *The Agricultural Situation in the European Union*, 1994 Report, Brussels 1995.

[16] According to the WTO regulations, subsidies for agriculture are not abolished but reduced, so that over a 10-years period (1995-2004) developing countries should reduce the level of summary coefficient by 13.3% , compared to the period taken as a basis (1986-88), whereas in the developing countries this reduction will amount to 20% over a 6-years period (1994-2000). Export stimulations for all products in developing countries are reduced by 24% of the value, or 14% of the quantity of each commodity, whereas in the developed countries the respective reductions will be 36% and 24%. *Source:* Abt

Land Policy

A large number of problems relating to land ownership and utilisation have been recorded in Macedonia. Particularly pressing are the following issues: improvement of land registers and records; solutions to the problem of uncultivated arable land; land protection against erosion and other kinds of damage; control of the utilisation of agricultural land for non-agricultural ends; and gradual enlargement of family farms. The enlargement of family farms and the market orientation of their production can be achieved in a number of ways: land purchase, leasing, concessions, joint use of land for the production of a particular product, and land consolidation.

The implementation of the Law on Transformation of Social Capital in Agriculture, enacted at the end of 1996, marked the beginning of a process of privatisation of agricultural companies which should be finalised in one year's time. Particularly significant is the procedure of "restructuring" and redistribution of re-allotted land complexes formerly belonging to the public companies, which should pay special attention to ensuring certain related wholes, primarily between crop and livestock production.

The process of privatisation should therefore take into consideration: 1) that the land, according to the Law, remains state property. It is therefore necessary to enact regulations for renting state land in the form of concessions, leases and other forms, in order to ensure efficient land utilisation; 2) in that sense, the privatisation of the capital must not result in the disintegration of the organisational and economic, or technical and technological wholes existing and efficiently functioning in certain – whether small, medium or large – companies; 3) Reduction of plots and complexes must not result in a reduction of the possibilities for rational utilisation of the land, machinery and labour, or in a decreased general efficiency of agricultural production.

Crediting of Agriculture

The special-purpose crediting of private farm units began in 1973, with re-direction of 5% of the net income from bank savings accounts (to an amount of US$ 5,925,000). In the period from 1972 to 1975 such special-

Associates Inc.: *Agricultural Subsidies and Protection for Selected Commodities in the Republic of Macedonia*, Maryland, USA, 1996.

purpose funds were ensured through the *Makedonija I* credit line of the *Stopanska Banka*, to a total amount of US$ 3,900,000. In the period 1977–78 US$ 2,100,000 were used through the *Makedonija II* credit line, as well as US$ 1,800,000 through the *Vojvodinska Banka*. These investment cycles were followed by other, mainly domestic funds formed at the *Zdruzena Stopanska Banka* and from some other participants (FNP – Federal Fund for Underdeveloped Regions – and RFNP – Republic Fund for Underdeveloped Regions). After 1991, investment in agriculture from this kind of sources ceased. A commercial credit from the World Bank is expected soon, as part of the "Project for support of private farms in the Republic of Macedonia". The active and adequate credit support is an indispensable and crucial condition for the accomplishment of the basic objectives of the Strategy for Agricultural Development in the Republic of Macedonia to the year 2020.

III. Strategy for Agricultural Development

Objectives and Concepts of Development

The principal, global priority objectives of the strategy for future development of agriculture to the year 2020 should be:

- to utilise the natural resources potentials to the optimal extent;
- to meet the domestic demand for agricultural products and produce made from them
- to increase the export of agricultural products and produce made from them;
- to provide agricultural producers with a more favourable and more stable economic and social status; and
- to adopt the developmental trends of developed countries.

With regard to the above objectives we append two concepts for future development – the first follows the current trends present in Macedonia, with complete liberalisation (no subsidies), and the second is one of a policy of a moderately intensive price and other subsidies for the more important products.

Table 20

Comparative Survey of courses of action, measures and expected results, depending on the degree of support to agriculture

Courses of action	Measures	Expected results
1. A concept of development with no subsidies to agriculture. – Cultivation of agricultural land of better quality (abandoning of hills and mountains) – Preservation of the present trends in the manner of use of agricultural land – Intensity: as per present trends (low)	Protection against dumping prices on imports. Intervention purchase – Active foreign-trade protection against the import of agricultural products.	Insufficient utilisation of agricultural land and a decrease in agricultural production. – Continued or slightly mollified de-agrarization of the countryside. – Relatively lower prices of food – No guarantee of parity income for agricultural producers
2. A development concept with a moderate policy of price subsidies. – Move towards cultivation of agricultural land with the aim of more profitable crop and livestock production. – Intensity: moderate (medium)	– Price subsidies as per WTO criteria – Measures towards moderate intensity – Measures towards an increase in crop and livestock production – Intervention purchase – Active foreign trade protection against imports	Utilisation of all arable land, more efficient use of machinery, and increased agricultural production – Secured interest in maintenance of the population in rural areas – Moderately harmonised food balance – Relatively higher prices of food – Parity income for agricultural production

Projection of the Development

Crop production. According to the trends to date in the structure, incomes and scope of crop production, no significant changes can be expected in the forthcoming period. However, it would be realistic to expect considerable progress by the year 2020 if the assumptions listed below are realised:

- a stimulate tax and credit policy;
- an adequate agrarian policy in regard to the subsidies;

♦ investments in and improvement of the irrigation systems;

♦ an improved and stabilised market for agricultural products and produce made from them; and

♦ increased export of agricultural products.

With the above assumptions in mind, we present two versions of the future development of crop production. The first (Concept 1) is more or less based on current trends and foresees only certain modest changes in the structure, incomes and volume and scope of production.

The second version (Concept 2) foresees achievements based on the fulfilment of the assumptions listed above. Tables 21 and 22 show the quantitative indices for the two versions. We prefer and propose Concept 2 as a strategy for future development.

Table 21

Structure of Utilisation of Ploughed Fields and Market Garden Land

Land use	Status 1994		Predictions for 2020			
			Concept 1		Concept 2	
	'000 ha	share	'000 ha	share	'000 ha	share
Ploughed fields and market gardens	553	100	544	100	540	100
Grains and cereals	242	43.8	225	41.4	235	43.5
Industrial crops	47	8.5	50	9.2	70	13.0
Market Garden produce	57	10.3	60	11.0	70	13.0
Fodder crops	36	6.5	39	7.2	65	12.0
Fallow and non-arable land	171	30.9	170	31.2	100	18.5
Second,side and carry crops	12	/	33	/	40	/

Livestock Breeding. According to current trends in the number of head of livestock and poultry, yields from and production of fodder, and livestock production, we cannot expect any significant increase or changes in the structure of livestock production by the year 2020 (Concept 1).

Table 22

Survey of the current situation and a projection of crop production development

Cultures and groups of cultures	Situation in 1994			Predictions for 2020					
	Area (000 ha)	Production (000 t)	Yield (kg/ha)	Surface area (000 ha.)		Total production (000 t)		Yield (kg/ha.)	
				Vers. I	Vers. II	Vers. I	Vers. II	Vers. I	Vers. II
I. ANNUAL CROPS									
Wheat	122	339	2754	98	100	314	350	3200	3500
Share %	50.4	/	/	43.6	42.6	/	/	/	/
Maize	44	133	3118	52	55	208	250	4000	5000
Share %	18.2	/	/	23.1	23.4	/	/	/	/
Tobacco	14.6	18.5	1269	20	26	25.6	36.4	1280	1400
Share %	31.1	/	/	40.0	37.0	/	/	/	/
Tomatoes	7	121.3	17329	8.5	10	157.2	200	18500	20000
Share %	12.4	/	/	14.2	14.2	/	/	/	/
Peppers	8	88	11012	9.5	12	114	180	12000	15000
Share %	14	/	/	15.8	17.0	/	/	/	/
II. PERENNIAL CROPS									
Cultures and groups of cultures	Situation in 1994			Predictions for 2020					
	Area (000 ha)	Production (000 t)	Yield (kg/ha)	Surface area (000 ha.)		Total production (000 t)		Yield (kg/ha.)	
				Vers. I	Vers. II	Vers. I	Vers. II	Vers. I	Vers. II
a. Fruit production									
Apples	2531	70.1	28	2540	3000	76,2	102	30	34
% of total	35,6	/	/	35,1	28,7	/	/	/	/
Plums	1452	24,7	17	1460	1900	24,8	38	17	20
% of total	20,5	/	/	19,3	18,1	/	/	/	/
Sour Cherries	1047	6,1	6	1100	2000	7,7	18	7	9
% of total	14,7	/	/	15,2	19,0	/	/	/	/
a. Viticulture									
Vine-yards in 000 ha.	32	210	6593	33	40	231	360	7000/ ha	9000/ ha
Dessert Grapes	/	19	/	/	/	46	72	/	/
Wine Grapes	/	19	/	/	/	185	288	/	/

The programme for a long-term development of livestock breeding to 2020 is a concept of the optimally balanced utilisation of livestock fodder (by quantities and structure) achieved through the programme on crop production (Concept 2).

Table 23

*Livestock-breeding capacities, yields and production to 2002 (concept I)**

Types	Current Situation (1994)					Forecast for the development to 2020				
		Milk		Increase			Milk		Increase	
	Number	Per head	Total	Per head	Total	Number	Per head	Total	Per head	Total
	('000)	kg.	'000 t.	kg.	'000 t.	('000)	kg.	'000 t.	kg.	'000 t.
Total cattle	281	..	..	..	..	292	..	..	..	..
Cows&heifers										
in calf	166	..	..	130	21.6	175	..	..	130	22.8
Milking cows	89	1301	115.8	..	..	109	1336	145.6	..	..
Sheep	2466	..	..	..	..	2592	..	..	..	..
Milking sheep	1710	36	61.4	17.4	20.7	1800	40	72	18	32.4
Pigs	172	..	..	..	..	210	..	..	..	..
Sows	29	..	..	841	24.4	30	..	..	850	25.5
		Eggs	Millions				Eggs	Millions		
Poultry	4685	..	..	..	..	3569	..	..	..	..
Laying hens	3982	127	510	1.5	7	3034	151	458	1.5	5.3

* All calculations and forecasts are a weighted average of the situation and of the expected changes in the agricultural structure (ratio and development of family farms and agricultural companies)

The programme presented for the development of livestock breeding shows that **possibilities are to be sought not in an increased number of livestock and poultry but rather in qualitative changes in livestock breeding on private farms (changed composition of breeds, feeding and zoo-technical measures), as well as in a better protective policy on the part of the state, characterised by a programme encouraging livestock breeding development.**

As in the case of the preferred future development of crops production, here too we prefer and propose the livestock development strategy – Concept 2.

Table 24

*Livestock-breeding capacities, yields and production to 2002 (concept II)**

Types	Current Situation (1994)					Forecast for the development to 2020				
	Milk			Increase		Milk			Increase	
	Number ('000)	Per head kg.	Total '000 t.	Per head kg.	Total '000 t.	Number ('000)	Per head kg.	Total '000 t.	Per head kg.	Total '000 t.
Total cattle	281	..	..	..	..	300	..	..	..	..
Cows&heifers										
in calf	166	..	..	130	21.6	180	..	..	372	67
Milking cows	89	1301	115.8	..	..	110	2300	253	..	..
Sheep	2466	..	..	..	..	2600	..	..	..	..
Milking sheep	1710	36	61.4	17.4	20.7	1800	40	72	18	52.4
Pigs	172	..	..	..	..	350	..	..	..	..
Sows	29	..	..	841	24.4	35	..	..	1000	35.4
		Eggs	Millions				Eggs	Millions		
Poultry	4685	..	..	..	..	4470	..	..	..	..
Laying hens	3982	127	510	1.5	7	3860	160	608	1.5	6.7
Broilers	..	..	..	..	..	10000	..	..	1.8	18

* *Ibid.* Table 24

Profit and Loss Account for the Production of and Demand for Agricultural Products

The forecasts of the total demand for agricultural products are based on an evaluation of domestic demand and of the export of agricultural products from the Republic of Macedonia by the year 2020.

The global balance between production and (domestic) demand shows that the structure of agricultural production in the Republic of Macedonia is and will remain oriented towards meeting the needs of the population for domestic food products, and increasingly also oriented towards production of surpluses intended for export. In this, the greatest return is accomplished in the case of the second concept. The export surpluses of the main market garden products, grapes and apples, will amount to 2/3 of the production, and approximately 90% of the grapes processed as wine will be intended for export. Livestock breeding products will preserve the level of lamb meat export, and this tendency is also present in the case of egg production. The balance in the programme for development to the year 2020

starts from a balanced production and consumption of cows' milk and beef. This is an indication that cattle breeding development should follow two separate courses – milk production and beef production. This will enable a 100% self-sufficiency in the matter of the requirements of milk and beef.

Table 25

Demand, production and balances for principal

agricultural products to 2020 (000 tons)

Products	Total demand		Production			Surpluses for processing and export or shortage to be covered by import			Percentage of self-sufficiency		
				2020		1994	2020		1994	2020	
	1994	2020	1994	Conc. 1	Conc. 2		Conc. 1	Conc. 2		Conc. 1	Conc. 2
Wheat	413	434	336	310	350	-77	-123	-84	81	72	81
Rice	21	25	9	31	44	-12	6	19	42	124	178
Potatoes	33	95	131	140	163	98	45	68	398	148	172
Tomatoes	38	52	121	157	200	82	105	148	314	303	303
Peppers	28	50	87	114	180	59	64	130	309	229	362
Apples	39	47	22	76	102	43	29	55	210	175	219
Grapes	31	28	52	58	90	20	29	62	166	203	318
Cattle Increase	37	67	22	23	67	-16	-44	-11	58	34	100
Pigs Increase	31	56	24	26	35	-6	-30	-21	79	46	63
Sheep Increase	13	14	30	32	32	17	-18	18	234	230	230
Poultry Increase	30	39	7	5	25	-20	-34	-14	28	14	63
Milk & Yoghurt	219	222	115	146	253	-116	-77	263	53	67	119
Cheese (sheep)	85	91	61	72	72	-19	-19	-19	72	79	79
Eggs. No.in mil.	404	489	510	458	608	106	-31	119	126	98	124
Sugar beet	249	184	54	88	144	-195	-95	-40	22	48	78
Oleaginous seed	103	122	18	23	39	-83	-99	-83	17	19	32
Wine Grapes	25	28	154	172	270	-129	145	242	621	626	975
Tobacco	2	4	19	26	36	17	12	32	788	545	847

The programme for agricultural development foresees a significant decrease in the deficiency of raw materials for the production of sugar beet to be processed into sugar, and oleaginous seeds for the production of cooking oil. And finally, tobacco production has reached the highest quantities for export (over 90%).

Table 26

Expected results from the development to the year 2020[17]

	1994	Concept 1 (projection)	Concept 2 (programme)
1. Agricultural land utilisation (000 ha)	1298 (1116)	1295 (928)	1295 (1245)
Ploughed fields and market gardens	**553 (383)**	**544 (330)**	**540 (490)**
Orchards	*20*	*21*	*30*
Vineyards	*32*	*33*	*40*
Meadows	*56*	*65*	*60*
Pastures	**635 (625)**	**632 (479)**	**625 (625)**
2. Production intensity	Low	Low	Medium
Average number of cattle (000)	**281**	**292**	**327**
Average number of cows (000)	**166**	**175**	**197**
Average number of milk cows (000)	**89**	**109**	**147**
3. Values (physical volume) of agricultural production (1994=100)	100	119	186
Ploughed fields	**100**	**153**	**201**
Market Gardens	**100**	**119**	**150**
Orchards	**100**	**108**	**182**
Vineyards	**100**	**110**	**167**
Cattle breeding	**100**	**117**	**356**
Sheep breeding	**100**	**113**	**113**
Pig breeding	**100**	**105**	**145**
Poultry	**100**	**87**	**158**
4. Degree of self-sufficiency and import (below 100) or export (above 100) of the principal agricultural products:			
Wheat	*81*	*72*	*81*
Rice	**42**	**124**	**178**
Tomatoes	**314**	**303**	**303**
Peppers	**309**	**229**	**362**
Apples	**210**	**175**	**219**
Dessert Grapes	**166**	**203**	**318**
Beef	58	34	100
Pork	*79*	*46*	*63*
Lamb	**234**	**230**	**230**
Poultry meat	*28*	*14*	*63*
Milk	**53**	**67**	**119**
Cheese	*72*	*79*	*79*
Eggs	**126**	**98**	**124**
Sugar	*22*	*48*	*78*
Cooking oil	*17*	*19*	*32*
Tobacco	**788**	**545**	**847**

Figures in brackets represent land actually used for production.

[17] Figures in bold represent surplus. Figures in italics represent deficit.

As the territory of the Republic of Macedonia is a relatively dry area, the existence of an irrigation system covering a number of regions and ensuring stability in the water supply for the agricultural land is of special importance both for the country and for its agriculture.

The modernisation of production and its export orientation should be the characteristics taken as the starting-point for possible credit and tax support for agriculture, in today's conditions when what have been known as selective credits have been abandoned.

Guaranteed prices and subsidies within the framework adopted by the WTO could help ensure a satisfactory and stable level of income for agricultural producers.

The intensification of and greater specialisation in livestock production represents one of the key strategic options related to the structural improvement of the agricultural sector.

The strategic objectives in this sector should also include the following:

1. Finalization of the process of transformation of companies using public capital and land.
2. Establishment of new forms of co-operation and co-operative management.
3. Development of a financial institution to provide credits for agricultural companies and private farm units.
4. Definition of the objectives and measures of the policy of the Board for Material Reserves related to agricultural products.
5. Organisational and personnel training of the Bureau for the Advancement of Agriculture, for a faster and more efficient transfer to agricultural producers of scientific and expert know-how and other achievements.
6. Reform of the system of education and research adapting it to a market economy and private initiative in the Republic of Macedonia.

IV. Forestry and the Timber Industry

The forests in the Republic of Macedonia occupy a surface of 905,653 ha. or 35.2% of the total territory of the country (situation in 1979). From 1979 to 1996 another 110,000 ha. have been afforested, but the results of afforestation were not successful everywhere, or at least not totally successful, and there are no analyses of their success, so we will indicate the

situation in 1979, when the last poll of the forest fund was carried out in the Republic of Macedonia.

The situation in forestry is not satisfactory in regard to the forestry reserves, the utilization of the estate and other wood products, or the use of equipment. The wood mass is insubstantial (82.1 m^3/ha.), the annual growth is small, 2.02 m^3/ha. (normally it is 7–8), the percentage of conifers is low (5.9 in pure and 1.9% in mixed plantations). Compared with Slovenia, the wood mass in Macedonia is half the size, while the growth of mixed conifers is 36.5 times smaller. The production of industrial timber from conifers was 25 times smaller. Namely, of the increase in the estate, 78.25% is intended for felling. Of the potential estate only 75% is used, that is to say out of the total annual growth only 58% is used, which is about 11% less than in Croatia.

Forest access is inadequate in regard both to length and quality. Even though the mechanization used for the cutting and transport of timber is at a certain satisfactory level numerically, in type the equipment lags behind the requirements and conditions of forest production in the matter of felling and transport.

Hunting is also relatively underdeveloped in comparison with the possibilities and the needs. Any sort of planned or professional economic activity is absent in relation to hunting.

The strategy and projections for the economic development of forestry should provide a more intensive development which would contribute to an increase in the benefits from forestry activities which are of general benefit: especially of a profitabile production of wood products. Bearing in mind the possibilities of development of forestry and of demand for wood and wood products, improvement in the forests by the year 2020 could be provided by a sustainable development of the 646,000 ha. of existing forest, by improvement of the forest structure on 260,000 ha. of the existing forests, with an increase of the area under forest by 150,000 ha., and with appropriate protection and maintenance.

It is anticipated that in the utilization of the rest of the forests by the year 2020 approximately 15,000 tons of bio-mass will be able to be used in a dry state annually. There is a great demand for such a bio-mass, both on the domestic and the foreign markets, giving prospects of an increase in the foreign exchange effects.

The basic strategy regarding the breeding, protection and the use of game should consist of a normalization of the population in its natural habitat, and an appropriate utilization of game without damaging the principle of the continuation and improvement of economic operations.

In order to achieve such a strategy and projection of the economic development in forestry, it is necessary to undertake measures: regarding promotion of forestry and forest utilization; regarding utilization of the estate, the other forest products and the equipment; regarding the accessibility of forests and the mechanization; regarding felling and processing the supply; transport, construction of forest roads (see table 27); regarding hunting – the introduction of intensive operations and modern techniques and technology; an increase in labour productivity and profitability; organizational measures which will enable a joint study of the market for and sales of the products; unrestricted export of forest products; an optimal valorization of the investments.

Table 27

Total length of planned forest roads

	YEAR	
	2010	**2020**
Hard roads (km)	2,164	2,697
Soft roads (km)	7,828	9,864
Total (km)	9,992	12,543

The situation in the timber industry is not satisfactory either, neither in primary nor in relation to final production. The use of facilities for production of sawn products built in the past is less than 60%. During recent years the newly-constructed facilities have been used up to 20%. The capacities for the production of high quality veneer are 20–40% used.

Changing this situation presumes: reconstruction and modernization of the existing capacities and construction of new capacities for profitable products; introduction of new technologies. A number of small-scale and medium-scale enterprises should be established in the final production and the quantity of products for processing should be increased (see table 28).

In order to implement the strategy for development of the timber industry, it is necessary to undertake measures for improvement of the ambient for the promotion of the timber industry, such as: a joint study of the market; purchase of raw materials and sale of final products; investments providing working capital and for reconstruction and modernization of the capacities.

The financial means to be invested in primary production by the year 2020 should amount to 90.4 million DEM, or on average 3.8% annually.

Table 28

Production of final products

	YEAR		
	1993	2010	2020
Household furniture in sets	2.3	9.7	19.0
Household furniture in elements	277.3	441	701.0
Office and school furniture per piece	5	8.4	13.4
Construction wood material per piece	108	252	400.0
Wooden packaging m^3	12.3	37.1	68.0
Houses, cabins and parts m^3	3.7	4.6	9.3
Parquet m^3	129.6	195.8	234.9
Furni-ture from laminated wood		1.5	3.0

Measures are necessary in order to stimulate exports and to provide credit for the marketing of the end products. By the year 2020 total investments should amount to 165.5 million DEM.

Table 29

Total funds invested in end production

	YEAR		
	2010	2020	Total
Household furniture in sets	34,000	20,000	54,000
Household furniture in elements	30,000	16,000	46,000
Office and school furniture	10,000	6,000	16,000
Construction wood material	10,5000	8,5000	19,000
Wooden packaging	5,000	3,000	8,000
Houses, cabins and parts	8,5000	5,000	13,5000
Parquet	3,100	1,900	5,000
Furni-ture from laminated wood	2,500	1,500	4,000
Total	103,600	61,900	165,500

In the strategy for the development of the timber industry it is planned that the total net annual financial effect by the year 2020 will in-

crease and will amount to DEM 66,208,000, of which primary production will generate DEM 21,706,000 and end production, 44,502,000 DEM.

Compared with the investments the effects are approximately six times higher, which shows that there are real possibilities for a satisfactory return of the funds invested and for further promotion of the timber industry. In addition, such a development of the wood industry will have a direct and an indirect influence upon the activities of other departments such as forestry, the textile industry, the chemical, metal, and automobile industries.

3. SERVICE SECTOR

I. General Approach

1. According to the data acquired by the World Bank[18] in the periods 1970–80 and 1980–92, the average growth rates of the realised GDP in the service sectors of the developed countries, with some exceptions, were higher than the growth rates of the total GDP, which led to a considerable increase in the service sector's share in the total of the realised GDP. Thus, the share of the service sector in 1970 in certain developed countries ranged from 43% to 63%, while in 1992 from 55% to 69%.

– There have been changes in the structure of the economy in the Republic of Macedonia, too.[19] Thus, in the period 1990–95, the share of the service sector increased from 43.4 % to 50.5 %, in which the changes in what are known as economic activities of this sector increased from 22.3 % to 27.3 %, and the non-economic[20] activities increased from 21.1 % to 23.2%.

Bearing in mind the level of development achieved in the Republic of Macedonia in comparison with that of the developed countries, it can be said that the share of the service sector in the total GDP is satisfactory. However, the internal structure of this sector leads to a different conclusion, because the share of the non-economic activities is relatively low. Considering the state of the economy in general and the state of the main economic activities in the service sector, there has been a great likelihood in the last few years that the share of the non-economic activities in the service sector will exceed 50%.

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[18] Source: *World Development Report 1994 – Infrastructure for Development*, The World Bank. Oxford, pp. 164–167

[19] Since there are only data about the GDP from 1990 onwards, while – bearing in mind the methodology applied – the non-economic activities were not included in the evaluations of the social product in the previous period, the data for the period preceding 1990 are not mentioned.

[20] These activities include: education, science and culture; health care and social security and the socio-political communities, the self-government communities of interest and the socio-political organisations

– The service sector in Macedonia still does not play the role in absorbing the labour force that it plays in economically developed countries. In the period of 1981–95, about 50 % of the total number of employees in the Republic of Macedonia worked in the service sector (both in economic and non-economic activities). The increase in the number of employees in the service sector is more a result of the increase in the number of employees in the non-economic activities of this sector, whose participation in the total number of employees in 1994 was nearly the same as the participation of the economic activities in this sector.

In addition to the non-economic activities, commerce, transport and communications, financial, technical and business services, catering business and tourism, the public utilities and the arrangement of living space and settlements also have a considerable share in the total number of employees in the service sector. Crafts industries and personal services have the smallest share in this number.

2. The role of the service sector is closely related to the level of social and economic development achieved. The basic premise for the development of this sector in the Macedonia is to halt the falling trends in the economy, to initiate stable economic growth, and to reduce noticeably the present participation of the grey economy in the country's economy.

Through its economic system and economic policy, the state should contribute to the creation of conditions favourable to the development of the services. Measures which are highly important in this regard are the following: (1) the creation of conditions for a normal functioning of the market, competition and free entrance to and exit from the activities in this sector; (2) the stimulation of entrepreneurship; (3) the stimulation of the development of small- and medium-scale companies, etc.

The service sector's development also depends on the quality and abilities of the management teams in the companies and the improvement of their technical equipment which is one of the factors in increasing the service sector's productivity.

3. The development of the service sector should lead to changes in the quantity and quality of the services produced in this sector, which will make possible an appropriate satisfaction of the growing and changing needs of the citizens and the economy.

3.1 What is dominant within the framework of **trades and crafts** and personal services is the share of the trades and crafts services and repairs, which according to the number of employees in 1994 was 93.1%, whereas

the share of personal and household services was only 6.9%. The development of economic activities expected in the other sectors of the economy, together with the increase in the population's purchasing power and standard of living, will lead to an increase in demand in the sphere of crafts and personal services.

The activities in the field of personal and household services are highly disorganised, which creates a state where most of the activities acquire the character of a grey economy. This will certainly be overcome in the forthcoming period, through an advancement of the work of companies offering trades and crafts services, an increase in the number and improvement of the equipment of services for maintaining apartments, home appliances, vehicles, hygiene in the home, improvement of various personal services, etc.

3.2 Economic development is not possible without the growth of **financial, technical and business services including: banking, insurance of property and persons, planning, designing and similar activities, geological research, research and development work and business services.** The increase in the number of small- and medium-sized companies will noticeably increase the demand for various intellectual and other services (such as market research, product presentation, financial work, accountancy, legal consultancy services, etc.).

The development of all the activities in the service sector will lead to a diversification of the services, improvement of their quality and a decrease in expenditures.

4. The changes that can be expected in the structure of the service sector in its further development are a decrease in the share of the number of employees in non-economic activities and an increase in their number in the economic activities in the sector.

After the year 2002, the share of this sector in the total number of employees may increase so as to reach about 55 % in 2020, thus nearly corresponding to the level of the present-day share of this sector in the industrially-developed European countries.

Despite the fact that the development of the service sector will greatly contribute to the acceleration of the country's economic and social development and to the employment rate, especially that of women, it should be stressed that, bearing in mind the achieved level of economic development of the country and the existing situation in the economy, it is not realistic to expect that this sector will reach such a potential as would more considerably influence the settlement of the unemployment problem as early as the first

stage to 2002, although it is beyond dispute that the development of the service sector will noticeably contribute to this problem's amelioration.

II. Commerce

1. The development of trade as one of the most relevant segments of the service sector is, above all, determined by:

- the development of the overall economy, and especially the production sector; and
- the achieved development level of the market, which in its turn depends on the purchasing power of the population, the organisation of market institutions, the development of transport and communications and the information system.

The starting-point for defining the development strategy for the Republic of Macedonia is the present state of this activity; its development to date; experiences and tendencies in other countries; and presumptions in relation to the determining factors, which result from the basic features of the economic system and the economic policy pursued in the country.

2. In the transition period the number of trading companies has increased significantly drastically and private companies have become the predominant type.

Until 1992, there was a constant growth in the number of retail capacities; after that there was stagnation and a tendency towards a mild fall. In the last few years the average selling-space per shop has fallen. A great number of department stores, supermarkets and other types of large shops have either ceased to operate or have been split into smaller shops. At present, newly-constructed large retail stores are very rare. Traditional shops are the most predominant type of shops.

In 1980 there were 267 customers per shop, in 1989 202; in recent years this number has been around 215 persons.

In the transition period, there is a large-scale tendency to open shops everywhere, in many cases in barely adapted and inappropriate premises. A great number of companies use ancillary premises such as basements, garages, sheds, etc., which do not meet the standards for the storing and handling of goods.

The highest density of trading companies and premises is in Skopje (about 40% of companies and commercial premises); of other towns, the

following also have a relatively large number of trading companies: Bitola, Kumanovo, Strumica and Tetovo.

3. The goals which are the basis for defining the trade and commercial sector development strategy can be divided into two basic categories: a) goals related to a better and more complete satisfaction of consumer needs and demands; and b) goals related to providing conditions for the optimal efficiency and development of trading organisations.

As a result of the present state and expected recovery of the overall economy, the share of trade in the GDP in the year 2002 will probably be around 20%. In the following period, if the conditions for the production activities are more favourable, it would be realistic to expect that the share of trade in the GDP will reach about 18%, by the year 2020.

4. In order to determine in which directions trade will develop in the future we must first take into consideration experience related to the development and features of trade in countries with a developed market economy, in the last two decades: a) on the one hand the number of small and medium-sized companies is rising, and there is also a high concentration of capital and many powerful companies are being established; b) the number of wholesale companies is falling, the growth of co-operation and the specialisation process provide a basis for the integration of wholesale companies, methods of working and activities are being modernised, and multinational wholesale trading organisations (with many branches) are growing; c) some dominant types of retail companies are: independent retailers, consumer co-operatives, united chain-stores (corporations), voluntary chain-stores and purchasing groups (contractual chains) and publicly owned chain-stores; d) the number of retail facilities is falling (this decrease applies to retail premises with a traditional sales-system); e) mobile trade and catalogue sales are becoming more important; f) there is a new approach to the location of commercial activities (the construction of shopping centres makes possible a high level of organisation of trading and commerce and of the trading and commercial network); g) the international transfer of retail "know-how" has been intensified, etc.

5. Bearing in mind the tendencies in developed countries, it is realistic to expect that in the period up to 2020 of the total number of employees the percentage of those employed persons in the sphere of trade will gradually increase, so that by the end of the period it will reach between 12 and 14%.

Trade should have the following target structure: in the wholesale and international trade 65% of the GDP and 30% of the total number of employees, and in the retail trade 35% and 70% respectively.

The present number of registered trading companies is not appropriate to the requirements of the Macedonian economy or population. This number will have to be reduced to a more realistic one through market competition.

Bearing in mind the present situation with regard to the spectrum of activities of the majority of registered companies, it is normal to expect that in the forthcoming period, under the influence of market competition, a process of specialisation (according to branches, types of goods, territory) and enlargement (either by establishing new companies with domestic and foreign capital, or by horizontal and vertical integration) of trade companies should be started.

Commercial trading, besides performing an intermediary function, in the forthcoming period will undertake the carrying out of a large number of other additional activities which will aid and simplify the performance of its basic activity. Such additional activities are: storage, sorting and upgrading the quality of products, measuring, packing and other similar activities.

As a result of the process of the adjustment of the Macedonian economy to market conditions, the need for a growth in vertical marketing, in which trade will have a special place and should play a more active role in the marketing macro-system, will increase.

The overall development of commerce depends on the companies' ability to keep abreast of and apply achievements in the field of developing technology and in the field of organisation of labour, with a special emphasis on management. The efficiency of operations of those carrying on trade in contemporary market conditions depends upon the ability of management and expert professional services to organise and manage these companies in compliance with a scientific organisation of labour and the rules of modern marketing.

In the forthcoming period commerce should become a source of new employment, especially of female workers. The opportunities that trade has to offer in the form of employment in part-time jobs should also be exploited.

6. Strategic orientations for the future development of retail trade must be based upon the fact that its basic goal is to satisfy the consumers' specific needs and requirements in the most appropriate way. These goals should be realised by always having and offering the necessary variety and quality of goods in well-equipped premises and by rendering appropriate additional services to the buyer (delivering the purchased goods to the buyer's home, modern packaging, offering credit, etc.).

In the year 2002, the number of retail premises should amount between 10,000 and 11,000 shops, and their total floor-space will amount around 800,000 square m. In the year 2020 the number of facilities could go up to 13,000 stores, and the floor-space up to 1,200,000 square m. According to this estimate of the number and size of retail premises, the average size of retail facilities will have gone up from the average 77 square m. in 1989, to around 80 square m. in 2000 and 90 square m. per shop in 2020. The area *per capita* will also go up. Namely, in 1989 this indicator amounted to 0.38 square m. *per capita*, and with the planned area of retail premises, in the year 2000 it would reach 0.42 square m., and the average floor-space *per capita* in the year 2020 should have gone up to 0.55 square m.; this average will be close to the area in developed countries where it amounts between 0.5 and 1 square m. The indicator regarding the number of persons per store will also undergo a positive change: today's average, of more than 200 persons per store, in 2002 will have gone down to 190 persons per store, and in 2020 to 160 persons per store.

The enlargement process of retail premises should not only take the form of an increase in the size of existing traditional shops, but also of the opening of up-to-date department stores, supermarkets, discount stores and the construction of shopping centres in areas without such premises.

Mobile trading and catalogue sales practically do not exist on the Macedonian market. These types of selling should especially be developed in certain regions of the country where, because of the small scale of trading, there is no interest in opening new shops.

It is realistic to expect that companies will enlarge themselves through certain forms of merger, present in all developed market economies, (the establishment of voluntary chains, joint corporations, etc.).

The transfer of retail "know-how" is also very important for the development of retail trade. This refers to issues such as the introduction of modern methods into purchasing operations, into assortment policy, into control of stock, into the sale of consumer credit and other types of non-cash sales, and into information on modern trade management. The franchise system as a modern concept and distribution technique should also begin to be applied more widely.

7. It is essential that the present unfavourable situation of the wholesale trade be improved in the immediate future. Wholesale trade must play the same role as it does in all contemporary countries throughout the world. The existence of a vast number of registered wholesale companies in such a

small area as the Macedonian market speaks of an extremely irrational and inefficient organisation of this activity. Therefore, in the forthcoming period it is necessary to reduce the number of companies, which should then be enlarged and specialised.

8. Wholesalers can play a major role in solving the most important problem of the agricultural sector - the sales of agricultural products. Until now, for several reasons, and especially because of insufficient technical equipment and untrained or unqualified staff, wholesale enterprises have made a very small contribution to improving the sales of this type of product. The wholesalers will have to take over the storage of agricultural products and for this purpose they will have to construct a large number of refrigerators and other types of appropriate storage facilities.

In this domain it is necessary to increase the storage space, to provide modern equipment and rational location. Greater attention should also be paid to the construction of modern distribution centres. Modern organisational, technological and managerial systems should be applied in the wholesale trade system.

The positioning of distribution centres and warehouses is very important for their efficient functioning. Usually these premises are located on the outskirts of towns, where the land is cheaper and the land rent is lower; they should also be close to main roads and connected to good roads and railway lines, making the flow to and from the storage and distributive centres faster.

9. In contemporary conditions commodity circulation includes a range of additional activities which are connected to the preparation and realisation of selling. Therefore, besides commercial companies, the following types of enterprises participate in commercial business activities: a) companies rendering services to commercial and production companies in the matter of carrying out their business; and b) special forms of trading companies.

The *first group* includes companies which in the narrower sense of the term render commercial services, these are: intermediary companies, commission companies, storage companies, forwarding agencies, quality control companies and also other types of commercial services.

The *second group* consists of enterprises that are able to increase the concentration of supply and demand on the market, creating conditions for a rationalisation of trade, a greater transparency of the market and more realistic prices. Such special and specific enterprises are: commodity markets, auctions, trade fairs, and wholesale and retail markets. Auctions and commodity markets have never been established in our country. However, *a*

commodity market for agricultural products is being established at present. Bearing in mind the seriousness of the problems concerning the sales of fruit and vegetables, *it is necessary to set up an auction market for fresh agricultural produce as soon as possible.* But whether a future auction market will have the desired effects will depend upon the definition of the goods sold, its organisation, technical equipment and staff. If the project for establishing an agricultural auction market does not succeed, in certain regions it will be necessary to establish wholesale markets, which could solve certain problems regarding the sales of agricultural produce. *In Skopje there is a wholesale market, but in its organisation and manner of operations, equipment and rendered services it differs from the institutions for supplying the retail network in larger cities in developed countries.*

The operation of retail markets will also have to be improved in the forthcoming period. It will also be necessary to establish new ones, especially in towns and cities where such do not exist or where the existing ones lack the necessary equipment for satisfying consumers' needs and regular market standards.

10. In order to achieve the goals of the development strategy, in the forthcoming period, the state will have to undertake the following measures:

- creation of conditions for the normal functioning of the market and market competition, in which all the participants in trade and commerce would be equal;
- creation of conditions for the inflow of foreign capital into the country;
- promotion of entepreneurship in the commercial sphere, which presupposes a simplification of the procedure for establishing new enterprises;
- promotion of the development of small and medium-sized commercial enterprises, **without restricting** the development of large commercial systems;
- passing of special regulations which would define conditions for obtaining construction permits for commercial buildings, above all shopping centres, warehouses and similar facilities within the towns and cities;
- encouragement of companies to open retail premises in hilly and mountainous and other underdeveloped regions or to develop mobile trade;
- taking of special measures to protect consumers, especially regarding the quality and durability of products;
- stable legal regulations, a penalty system and inspection bodies in this field.

III. Tourism

The Republic of Macedonia has real chances to significantly improve the development of tourism through a more active valorisation of the comparative advantages it has. Such an orientation can in the initial period rest on the existing material basis without any considerable investments.

The Republic of Macedonia possesses accommodation and other tourist facilities and monuments of material and spiritual cultural relevance (historical, artistic, architectural and ethnographic), dating from the Neolithic era to modern times, located in almost its entire territory. However, even the best part of the tourist offer of the Republic of Macedonia does not meet the demands of the modern tourist market, while the insufficient and unsystematic promotional activities provide a non-selective and unprofessional presentation of Macedonia to the world.

Judging from the most general structural indicators, tourism is a sector which deserves serious attention in the strategic orientations of our economic development. Namely, income from tourism in Macedonia participated with about 3.2% of the 1994 social product, while, according to certain international assessments, a two-percent participation is an indicator that tourism can have a stimulating influence on general economic development. However, the present general state veils the problems in this sector which briefly are as follows:

a) a traditional and insufficiently diversified structure of the tourist product on offer, and

b) lagging behind of the "technological" level of the tourist **sector** in the sense of an insufficiently dynamic modernisation of the physical and human capital involved in tourism.

The already existing hotel and other accommodation facilities and their exceptional climatic and recreational conditions are the most attractive and most promising tourist potential.

Although the number of hotels and other tourist accommodation in the Republic of Macedonia is relatively modest, it achieves relatively productive results. The structure and quality of these facilities, the proportion of the hotel accommodation on the one hand to all other kinds of accommodation facilities on the other is unfavourable. As for the dining facilities (restaurants, cafés, bars), it can be said that they satisfy the existing demand. The largest deficit is felt in facilities providing a rich and varied programme during the stay, which seriously influences the quality of the tourist offer

(congress and concert halls, attractive boats, sports swimming pools, diving boards, other sports areas, beach equipment, etc.)

Competition on the tourist market and the aggressive tourist offer is present everywhere. Contrary to this, our country's offer is insufficiently present on the European tourist market. This results in an extremely unfavourable situation in the foreign tourist trade, which has in the last few years hardly reached a third of the turnover of 1987.

There are justified estimations that the demand for domestic tourists in the period to 2002 will directly correlate to the development of the economy and the improvement in the population's standard of living. The expected increase in the population's purchasing power will certainly open up a space for a more massive use of the tourist facilities. An especially relevant factor in this is the level of the prices and the quality of the services compared to certain competitive tourist areas in Greece, Bulgaria and Turkey (with a noticeable increase in the last few years). A few years from now this will be the case with Albania too.

The tourist economy must make serious efforts to restore the trust of certain tourist agencies from Western Europe, especially from Holland, Belgium, Germany, the Scandinavian and other countries, to organise continuous arrangements in the Macedonian tourist centres. In addition to this, Macedonia should appear on the market in Greece, the Near East and Northern Africa with its famous winter recreation resorts.

As has been mentioned already, in the period up to the year 2002, the tourist trade in Macedonia has real chances of achieving and possibly exceeding the level it had in 1987. This means that its real development will in fact continue from 2002 on. There will be no need for any significant investment in this period (the tourist economy does not have any accumulated means of its own, in any case), because the use of the accommodation facilities is at a minimum. However, it will be necessary to improve the contents of the tourist programme and carry out the necessary renovations and adaptations with the aim of improving the quality of the furnishings, reception and services. The city of Skopje, however, desperately needs the construction of a modern hotel building within the framework of one of the world hotel chains, with a larger accommodation capacity.

The special aim of the development to 2020 should be an increase in the number of foreign tourists. If one bears in mind the fact that the Republic of Macedonia sets out from a very low starting-point but has certain comparative advantages and a diversified structure in these activities (lake, spa, winter, hunting, cultural and historical tourism), then to expect an average

annual growth rate of the tourist turnover of about 10% and a realisation of about 600 million US $ in 2020 is quite realistic.

However, the realisation of these aims requires a clear definition of the priorities and the dynamics of the future development; completion of the network of tourist agencies in the more important tourist destinations; categorisation of the accommodation facilities according to European criteria and provision of the necessary investment interventions; the organisation of an association of hotel companies which will strive to promote the quality and the standard of services and a competitive offer to tourists. There is also a lack of modern legal measures for regulating the status, work and categories of companies and other business facilities in the tourist sphere.

The development of a massive domestic tourist trade requires a definition of the status of the companies' resorts, categorisation and equipping of caravan parks and, above all, enrichment of their services and the contents of their programmes. Mountain resorts and hostels and their recreational attractions should be renovated and better equipped, and new facilities in the mountain tourist areas should also be built.

The national parks with their spacious reserves, recreation and hunting potentials have not been seriously included in or oriented towards tourism so far.

The national wealth of numerous thermal and mineral springs with high-quality juvenile water and the spas do not even approach modern, well-arranged health-resorts or recreation and tourist centres. The condition of most of the winter sports centres is not much better either. Transit tourism has significant real chances, on the condition that a complex and diversified programme for all the more interesting sites (archaeological, cultural, historical, natural, etc.) be prepared. For this purpose, the private initiative should be stimulated or concessions to foreign capital should be made.

Health-food production and its placement on the tourist market can make its contribution to the development of a highly profitable tourist trade.

As for the greater investments which will be necessary after 2002, and without which the realisation of the developmental aims of tourism will not be possible, Macedonia will have to provide foreign capital in various forms (direct investments, partnership, concessions and loans). Its inclusion in the existing international hotel chains is one way of attracting foreign capital. Simultaneously, it should systematically invest in the education and raising of the professional and cultural levels of the employees in the hotel and tourist facilities.

In evaluating tourism's contribution to the economic development, Macedonia as a small open economy should especially take into account the balance-of-payments effects which this sector brings. Before transition began, with its realised US$ 64.6 million (1989), tourism provided about 4.18% of the foreign currency inflow through goods and services. On the other hand, the foreign currency outfall through Macedonian tourists reached 4.65% of the total of citizens' personal expenditures (1990), which is a higher per cent than that of countries with developed tourism (Turkey, Greece, Italy) where it ranges from 0.8% to 2%. In 1996, the total foreign currency inflow from tourism was US$ 20,607, 331, whereas the total foreign currency outfall from tourism was US$ 26,247,588.

All this points to the fact that there are considerable chances for improving the foreign currency effect from tourism in the Republic of Macedonia. With an assumed annual growth rate of about 4%, a foreign currency inflow of about US$ 70 million will be achieved by 2002, which will also mean the achievement of about 900,000 overnight stays by foreign tourists.

The future development of tourism in the Republic of Macedonia necessarily envisages innovation in the product which the tourist industry delivers, especially on the foreign market. This product appears as a tourist identity, an image of the entire country among potential foreign tourists. At the same time, the marketing placement of the tourist product acquires the form of a "sale" of visual constants which the potential consumers relate to the country and the region: political stability, security of the tourists, diversification and adaptation of the tourist product to the selective taste of tourists, the suitability of the communication infrastructure, etc.

The restructuring and innovation of the tourist package which can be offered by Macedonian tourism lies in targeting the specific priority segments of the tourist market and their swift modernisation and activation, insisting on the authenticity of the package of tourist services of the Republic of Macedonia, raising of the environmental and cultural standards of the services and devising better marketing, i.e. promotional activities.

IV. Building Construction

Current situation

In the investment processes in the Republic of Macedonia construction work participates with about 40% of the total investment value. In 1995

about 9% of the total number of employees were working in building construction (in 1985 this was about 11%).

In the period of 1985–95, building construction suffered a decrease in the number of employees of over 40%. The loss of markets and the drastic reduction of the amount of work within the country and in the traditional markets (especially the countries of the former Soviet Union, Iraq, etc.) were the reasons for the dramatic decrease in the employment in building construction (Table 30).

Table 30

Year	1985	1990	1991	1992	1993	1994	1995
Total number of employees	491,673	507,324	468,372	446,117	421,028	395,686	356,617
Economy	374,680	417,485	381,924	361,405	336,801	310,969	272,006
Building construction	53,295	47,636	42,492	39,680	36,513	33,368	31,466

Source: Bureau of Statistics of the Republic of Macedonia

The reduction in the number of employees in the construction industry is not the same in high-level construction, low-level construction, construction of hydroelectric power plants and dams and installation and trades work (Table 31).

Table 31

Number of employees in various subsectors

Year	Building construction	Unlicenced and hydro-construction	Installation and finalisation works
1985	30,927	10,900	11,468
1990	26,831	11,518	9,287
1991	24,197	9,417	8,876
1992	23,126	9,027	7,527
1993	20,608	8,913	6,992
1994	18,728	8,475	6,165

Source: Bureau of Statistics of the Republic of Macedonia

According to an analysis made in 14 companies with about 24,500 employees, 7.1% of the employed were highly-educated personnel, 13.6% had secondary education, and 79.3% were construction workers. The highly-educated personnel consisted of 68.8% civil engineers, and 31.2% of other

profiles (lawyers, economists, etc.). Fifty-three per cent of the employees with secondary education were technicians. Of the construction workers, 41% were highly qualified, 48% were skilled and 10.2% were semi-skilled.

The construction materials industry does not follow the trends of industrialisation in the developed countries. The modest and out-dated range of building materials in comparison with modern production in the world weakens the competitiveness of construction both on the domestic and the foreign market.

Basic development directions

1. Modernization of the existing enterprises and formation of new, modern construction facilities which will be competitive both in the domestic and in the foreign markets, and special care for the education of high-quality and specialized personnel in building construction.

2. Transition from classical construction production to an industrialised and prefabricated one, with special stress on modern installation construction, standardisation, and modular coordination.

3. Formation of *joint institutes or organisations* for: research into the markets of other countries and their legal regulation regarding tenders, interstate contracts and insurance of investment works abroad. They should also take account of credit support for construction abroad and in our own country, coordination of the range of products, the application of new, highly advanced technologies, protection from the purchasing of obsolete equipment and mechanisation, foresight regarding changes in the forms of organisation of building companies and changes of the types of construction machinery and equipment, high-quality investment project management, the strengthening of competition in the sector, and inclusion in international associations of interest to building construction.

4. Preparation of high-quality spatial and urban development plans, by applying the technology and experiences of the developed countries. There is a need for the formation of organizations and companies with an educated personnel which can apply top technology in preparing up-to-date solutions for the spatial and urban development plans and their valorisation.

5. Passing of the necessary laws, sub-legal acts, regulations and standards, coordinated with those of the developed countries, with a special accent on the quality and security of the object of investment and on environmental protection.

6. Organisation of regular and high-quality construction production control and environmental protection. Formation of modern specialised institutions for the control and certification of the quality of building production and validation of projects from other countries with the aim of identification and protection from risks.

V. Local Infrastructure and Public Utilities

Bearing in mind the deficit in and relatively low quality of public utilities, the basic strategic orientation in developing the sector of communal public utilities should be raising public utilities to a higher level, both in quality and in quantity. To this aim, the minimum standards of public utilities should by 2020 reach a much higher level than the current ones and should significantly approach the standards of the developed countries.

The sector of communal public utilities is closely related in many areas to spatial and urban planning in the state. If one bears in mind the fact that, for instance, soil, water and air pollution is closely related to the activities of various public utilities, which can lower or improve the quality of the environment, it is clear that this sphere of the economy plays an important role in the creation of urban standards of living.

Indeed, some of the communal activities produce positive urban effects, such for instance as the trimming of the city and other park areas, their irrigation, etc. On the other hand, most of these activities can be a threat to the ecological balance in the environment, especially if the level of the economic standard is low. Here, mention can be made of the activities regarding the discarding of industrial and other dangerous waste, the inadequate drainage and channelling of waste water, the outdated public transport and other public utilities which directly participate in the environment's pollution.

In the former period, most of the subjects in the sector of communal public utilities were in a monopolist position, which is why activities in which competition should be included as a rational solution should be established. For some of the activities this should be categorical, such as for instance in the water supply, the central heating system, railway transportation and most of the electric power facilities, i.e. the greatest part of the large-scale infrastrucutre, for which the status of well-regulated natural monopolies could be beneficially preserved until a healthy economic sphere is built. This implies the introduction of consistent economic regulation and, together with this, appropriate state control.

Economic regulation of the monopolies can be carried out in several ways. One of the options is making concessions on the part of the state under conditions for performing a certain activity agreed upon in advance; a second possibility is regulation through the help of ceiling prices of services and the third is regulation through determining the level of the profit which a public utility company may make depending on the capital.

The aim of the measures for regulating monopolies in the sector of communal public utilities is to provide respect for certain quality standards, to strengthen the legal regulation of competition and to protect consumers from the monopoly's abuse of its market power.

When discussing the issue of regulation of this sector, the issue of competiton on the part of the private sector is unavoidable. The reasons for this are the large amounts of the sums for financing the maintenance of the local infrastructure, which is a serious burden on the state (the local community). On the other hand, if an adequate economic climate is provided for such private investments, the interest of the private investors can be secured too. This is, therefore, a matter of mainly non-risk investments the character of which guarantees the security and profitablity of capital in the public utilities. Moreover, many of the public utilities offer the possibility of a partnership between the state and the private sector, especially where a division of the risks is possible. Thus, an entrepreneural spirit will be secured in the companies, as will the introduction of new technologies, knowledge and, what is especially relevant, fresh capital.

The introduction of competitive principles is possible especially in the sector of infrastructure and equipment maintenance, and maintenance in the various kinds of transport in the public facilities and public transport; maintenance of the park areas; the supply of plants; maintenance of the road network and the other public traffic areas; maintenance of communal hygiene, etc. What is essential is that the delegation of these functions to the private sector be carried out according to the principles of quality, economy and development prescribed on the part of the state (the community) as criteria for obtaining the desired level of communal standards.

However, if the state intends to protect the non-profitable infrastructural services for social reasons, while at the same time striving to involve the private sector, it would have to do this by introducing subsidies for the basic activities.

A strict determination of the public interest and character of certain public utilities, a precise definition of public and individual communal con-

sumption, a regional approach to the solution of certain large infrastructural projects and, especially, a clear definition of the sources of financing the sector of communal public utilities and the role of the local community budget, are issues which the state should legally regulate. A fierce penal policy, for its part, is an important instrument in raising the level of communal culture and discipline.

As a result of the development of state institutions in charge of environmental protection, the sector of communal public utilities will probably undergo serious changes in the technical and technological bases of its activity, which certainly includes new investments. In this regard, the state will have to take care of covering the initial spatial and urban expenditures in this domain.

PART FOUR

INFRASTRUCTURE

1. TRANSPORT AND COMMUNICATIONS

This study deals with Macedonian transport (road, rail and air transport) and communications (postal and telecommunications network, and radio and television broadcasting network) as systems, even though today we do not have a transport and communications – tracom – system with the structure and function of an accomplished system: the linking of the basic segments of the system (traffic and telecommunications networks and capacities, companies, scientific and educational institutions, etc.) has not yet been analysed or planned as a whole.

According to the data on transport and communications in the Republic of Macedonia for the period 1990–95, extrapolation, as a method of future development planning, is not applicable, due to the fact that in the period 1945–90 Macedonia was a part of the economic system of the former Yugoslavia.

I. Current State

Road transport

To date a road network of 909 km of trunk roads, 3,058 km of regional roads and 4,180 km of local roads has been constructed in the Republic of Macedonia. 138 km of the total road network are motorways and 584 km are international "E" highways.

The traffic frequency of transport vehicles as shown in the automatic counting of the annual average daily traffic indicates that in the period following the year 1990, as a consequence of the war on the territory of the former Yugoslavia (Croatia, Bosnia), and, later on, of the traffic blockades imposed on our country (Greece, Serbia), there were certain traffic disruptions resulting in reduced or increased traffic in certain regions. Data from 1995 indicate a slight normalisation of traffic.

The unbalanced distribution of trunk, regional and local roads, and particularly the small number of **access roads to agricultural land,** make

their development and the establishment of a **Macedonian transport communications (tracom) system** imperative.

The preliminary and the main projects made to date have been based on obsolete technology, without satellite pictures or computer support in the choice of the optimal variant. The project documentation does not include a ***Project on the organisation and technology of construction*** with a standard calculation of the costs and dynamics of construction at minimum total costs.

Railway Transport

Despite the fact that the territory of the Republic of Macedonia, with its central position in the Balkans, has been since ancient times an important cross-roads of transport and communications, the development of the railway network in the past 50 years cannot be described as expansive, but rather as stagnant. In the year **1996, single-track railway** of normal-gauge amounted to **699 km.** (278 km. of main-line railway, 250 km. of first class, and 171 km. of second class) 233 km. of which are electrified.

Comparison with certain developed countries shows that the Republic of Macedonia has a relatively low railway network density (Table 32 – 1991).

Table 32

(1991)

Country	Track length/mil. inhabitants	Track length/1,000 km^2
Austria	747	70
CSSR	842	103
France	586	61
Greece	247	19
Macedonia	***339***	***27***
Hungary	751	83
Romania	490	48
Slovenia	600	59
Sweden	1238	24
Turkey	139	11

Source: Simoncic Marjan: "Transportna infrastruktura", Strategy for the Economic Development of Slovenia, 1995.

A comparison of the 1937 data with the corresponding data from 1996 shows that the level of development of railway transport in our country

in 1937 was higher than today's, which is a result of 50 years of railway development stagnation.

Table 33

Year	Track length/mil. inhabitants	Track length/1,000 km^2
1937	542	30
1991	340	27

It should be emphasised that the quality of railway lines in 1937 complied with the standard regulations on the stability and transport speeds of the time. Today, European railways do not allow an axle load lower than 220kN. The obsolete technical state of today's tracks is badly affecting the stability and the speed of transport (Tables 34 and 35).

Table 34

Technical state of tracks for given speeds

Railway line	km	Speed km/hour
Tabanovce–Skopje	49.80	100/90
Skopje–Veles	48.70	80/90
Veles–Gevgelija	115.00	90/100
G.Petrov–Kicevo	103.00	40–100
Veles–Bitola	128.90	65–100
Veles–Kocani	85.60	65–75
Skopje railway network	37.00	40–100

Source: Annual Report of Macedonian Railways Public Company, Skopje, 1995.

Table 35

Axle Loads

Description	km. tracks	%
– up to 160 kn	30	4
– up to 180 kn	132	19
– up to 200 kn	152	22
– over 200 kn.	385	55
Total:	699	100

Source: Annual Report of Macedonian Railways Public Company, Skopje, 1995.

On the territory of the Republic of Macedonia Macedonian Railways has 304 level (grade) crossings. 22% of these are regulated with automatic signalling systems, 7% with electric or manual barriers, and 71% with traffic signs. These safety measures are far below the necessary modern level of safety in railway transport.

Today's railway transport organisation does not allow for an efficient **combined** transport in terms of qualitative interaction with road and air traffic.

Ecological advantages, the possibilities of shortening journey-time, improvement of the standard of travelling comfort and of the necessary elementary degree of adjustment enabling the transport of handicapped persons, have neither been taken into consideration nor made use of.

Future foreign capital investment (through a regime of concessions or other conditions) in the construction of new railway lines and in up-dating and connecting the existing lines into an efficient railway network will require thorough analyses and preparations of a high quality, as well as modern legal regulation and defined conditions for concessions.

The newly-created need for a railway connection with Bulgaria and Albania, i.e. the construction of the East-West railway corridor, will be a very important and indispensable expansion of the main-line railway lines in the Republic of Macedonia and a link with the principal European and wider communications, as well as an opening of access to new markets.

Air Transport

Until 1991 there were no Macedonian air-companies, and our airports (Skopje and Ohrid) were treated as secondary airports. This has had considerable consequences on the development and diversification of air transport.

The period from 1992 to date has seen intensive air-traffic organisation, and the current situation of air transport, airports and airport functioning has not yet reached a level to satisfy all the international standards and norms.

There are also five sports airstrips, used and partly maintained by the Aeronautics Association of the Republic of Macedonia and the flying clubs, but they have been facing financial problems which render their more efficient operation almost impossible.

At the time of their construction, the eight airstrips satisfying the needs of agriculture and the economy in general used to be an example of good quality and equipment in the Balkans. Today they are in a bad shape, just as is the agricultural air service.

Current air transport uses three former air corridors and one new corridor, and there are plans for the use of yet another new one, so that in the near future five airway corridors will be in use.

Postal, Telegraph and Telephone Communications (PTT)

At the end of 1994, the total number of PTT network-units (post, telegraph and telephone units, post-office counters, mobile post-office units, etc.) in the Republic of Macedonia amounted to 266, which, compared to other countries and to the number of inhabitants, is a relatively low figure, meaning there are too many inhabitants per PTT unit (Table 36).

In the European countries one post-office serves 1,200–5,000 inhabitants, or 9–20 km^2, whereas in the Republic of Macedonia it serves 7,281 inhabitants, or 97 km^2 (Table 37). The postal services are carried out with relative difficulties, owing to the longer routes mail has to take in order to reach the post offices.

Table 36

Survey of number of PTT units by country

Country	Number of inhabitants	Number of units	Inhabitants per PTT unit
Germany	81,190,000	19,742	4,112
Croatia	4,760,000	1,082	4,399
France	57,660,000	16,877	3,385
Slovenia	2,000,000	505	3,881
Romania	22,760,000	2,503	9,093
Macedonia	1,936,877	266	7,281

Source: PTT Makedonija – Skopje: *1994 Company Operation Report*, Skopje.

Table 37

Survey of PTT network units by towns

Town	Number of inhabitants	Number of units	Inhabitants per PTT unit	Number of counters	Inhabitants per counter
PTT	Makedonija	1,936,877			
Bitola	116,333	29	4,011	43	2,705
Kocani	111,904	15	7,460	36	3,108
Kumanovo	162,510	24	6,771	37	4,392
Ohrid	167,062	27	6,187	40	4,176
Prilep	116,141	16	7,259	25	4,645
Skopje 1	541,280	51	10,213	93	5,058
Tel. teleph.	541,280	1	10,213	2	5,058
GCPS	541,280	1	10,213	12	5,058
Tetovo	174,748	13	13,442	18	9,708
Veles	88,617	15	5,908	33	2,685
Strumica	132,186	24	5,508	39	3,389
Stip	88,295	13	6,792	25	3,532
Gevgelija	34,767	9	3,863	16	2,172
Kavadarci	41,801	6	6,967	12	3,483
Kicevo	53,044	11	4,822	18	2,946
Gostivar	108,189	11	9,835	20	5,409

Source: PTT Makedonija – Skopje: *1994 Company Operation Report*, Skopje.

II. Development Objectives

1. Balanced regional development of the Macedonian tracom system.

2. Increased total coverage[21] of municipalities with road, rail, and air transport, as well as with telecommunications, aimed at achieving a balanced standard and quality of living in the urban and rural areas, compatible with EU criteria.

3. Reconstruction and construction of transport and communication networks and provision of transport means, using top technology in investment preparations, design, construction, maintenance and exploitation.

4. Increased capacity of the Macedonian tracom system, its linking to neighbouring countries and integration into neighbouring and European systems and flows.

[21] "Coverage" means that the centre of the municipality is less than 50 km (by road) from the nearest airport, and that there is at least one railway line in the territory of the given municipality.

5. Constant control aimed at achieving higher safety in transportation and environmental protection.

III. Implementation Measures

1. Enactment of a law on investment construction and a law on quality and investment safety, compatible with international standards (ISO/DIS 10006, FIDIC, UNIDO).

2. Establishment of an interdepartmental body to coordinate the **integrated development** of the key infrastructures (water-utilisation system, electricity-utilisation system, gasification system, etc.), transport and communications, with the aim of achieving:

♦ Continuity in the planning, organisation of the realisation, and monitoring and control of transport and communications development strategy.

♦ Efficient forms of financing using both public and private capital and of granting concessions (a much-used concession technique in the developed countries is the BOT [Build-Operate-Transfer] technique), and a decrease in and gradual abolition of transport and communications subsidies. The existing system of investment based exclusively on **public capital**, and the lack of readiness for investment interactivity between public and private capital, with defined rights and obligations, is a barrier to intensive construction.

♦ Intensive incorporation of regional and local development interests into the development of tracom system axes (former mono-centric economic, social, cultural and other types of links between Skopje and the other towns in the Republic of Macedonia has had repercussions on their development).

♦ Organisation and invitation of domestic and international bidding for the tracom system planning, design and construction. Present shortcomings in bidding, and the purchase and re-sale of land planned for the instalment of tracom lines, buildings and networks by the monopolies – the public companies – are a serious barrier to winning foreign investors' trust and capital investment.

♦ Organisational re-structuring and up-dating of state companies with educated and highly qualified managerial and expert staff.

3. The lack of interest on the greater part of the existing management of the monopolies of the tracom system (Macedonian Railways, Road Network Fund, PTT, RTV) in efficient re-organisation and market orientation,

and the lack of concern for and interest in the complex issues of transport and communications and their development, have resulted in a large **vacuum** of many years in the elementary interaction of road, rail and air transport and telecommunications, and their qualitative development. This indicates an urgent need to establish a Chamber of Transportation and Communications, to protect the interests of its members and to engage in the construction of a high-quality Macedonian Tracom System, the activities of which would be realised also through:

♦ On-going education of the managerial and technical staff in companies and institutions dealing with transportation and communications, aimed at modern and efficient investment preparation, project management, design, construction and utilisation and operational management.

♦ Granting licences to companies and experts satisfying the legal conditions related to quality of management of the complex investment processes. These licences would to a large extent help eliminate the false conviction that the experiences of the communication systems and technologies of the developed countries can easily and directly, without any modalities of adjustment, be applied to the communications systems of the Republic of Macedonia.

4. Design, realisation and control of high quality public spatial and urban plans, designed and realised in accordance with the methodology and experiences of the more developed countries, where tracom systems are seen in correlation to the systems of future developmental axes and inter-urban energy infrastructures.

5. Public presentation of preliminary and main projects.

IV. Development Priorities

Road Transport

♦ Construction of the North-South corridor with one trunk route and a motorway along its whole length (Yugoslav border–Kumanovo–Veles–Gevgelija–Greek border).

♦ Construction of the East-West corridor with two trunk routes: **northern** (Bulgarian border–Kriva Palanka–Kumanovo–Skopje–Struga–Albanian border) and **central** (Bulgarian border–Delcevo–Stip–Veles–Bitola–Ohrid–Albanian border) with a motorway in certain sections. The

northern and the central trunk-roads will have similar utilisation characteristics and equal competitiveness in becoming, after the year 2020, trunk-routes with motorways over their whole length.

By the year 2020 a part of the traffic on the northern trunk-route will be re-directed on to the central trunk-route (traffic from Demir Hisar and Makedonski Brod, a part of the traffic from the Ohrid region to Kumanovo, Nis and Kriva Palanka.)

♦ Transformation of the Skopje–Tetovo section into a motorway (35 km).

♦ Completion of the Veles–Babuna–Prilep road (78 km).

♦ Completion of a Skopje ring-road (23 km).

♦ Completion of the reconstruction of the Stip–Strumica road (40 km).

♦ Construction of the Resen–Kosel (near Ohrid) –Trebeniste section (35 km).

♦ Continuation of the transformation of the North-South corridor into a motorway, on the Tabanovce–Kumanovo section, and continuation of the transformation of the North-South corridor into a motorway, on the last, Stobi–Gevgelija section (85 km).

The order of priority is given in correlation to coverage of municipalities with rail and air transport.

♦ Construction and organisation of urban **distribution centres** and terminals for the re-loading of goods from large to small means of transport, reduction in the number of large and increase in the number of small means of transport, reduction of "idle" trips, stimulation of "circular" trips and distribution of goods, etc. Combined transportation with quick re-loading in the larger urban centres should be intensified, **container** transport should be stimulated, and heavy trucks should be permanently banned from certain areas and roads, for ecological and economic reasons.

Rail Transportation

♦ Improvement and reconstruction of the Skopje–Gevgelija main-line railway in accordance with the European Directive Plan for the development of main-line railway routes and for the regulation of the Vardar basin.

♦ Completion of the construction of the Kumanovo–Bulgarian border railway.

♦ Reconstruction and electrification of the existing Veles–Kočani and Veles–Bitola–Kremenica railway lines.

♦ Support for and utilisation of the ecological and energy advantages of railway transportation over road transportation (a preference for the development of railways) and for the advantages of **fast routes**. Recognition of the growing importance, development and dominance of "***green technology***" in contemporary legal regulations world-wide, or, in other words, trends in technological development leading to a reduction in environmental pollution, meaning preference for the advantages of railway transport over road transport and the need for re-directing road freight transport to the railways.

A feasibility study for the construction of the Kičevo–Kafasan railway line has been prepared on the basis of a preliminary project. According to the preliminary project the rate of social profitability is 28%, with a planned volume of international transportation of 2,494,000 tons in the year 2020. All factors relevant to the realisation of this project should be firmly established.

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By 2020, the railway network in the Republic of Macedonia would thus be increased from the present **699 km. to 1131 km.** (181 km. in the western region, and 251 km. in the eastern) and the existing and new lines would be linked up. The ratio between track lengths and the number of inhabitants, i.e. the area of the country, would reach **514 km per million inhabitants** (instead of the present 339), i.e. track lengths of **44 per 1000 km^2** (instead of the present 27).

Air Transportation

Reconstruction of Skopje Airport (transition from category I to category II, and by the year 2020 to category III), reconstruction of Ohrid Airport (to category I, and by the year 2020 to category II), construction of a service for domestic and foreign aircraft overhaul, repairs and maintenance, reconstruction of the agricultural airstrips, construction of three new airports in the vicinity of Skopje, Bitola and Strumica, and reconstruction of all sports airstrips in accordance with international regulations.

A more efficient operation of all airports in the country with additional airport services (catering, restaurants, trading, marketing, etc.).

Granting concessions for the construction and reconstruction of airports, airstrips, and aircraft servicing for a period of over 10 years.

Post, Telegraph and Telephone (PTT)

1. Privatisation of telecommunications, telephone services and infrastructure.

2. The number of public phone-boxes, as well as of postal units in the municipalities (post, telegraph and telephone units, post-office counters and mobile post-office units) should be increased, and the number of postal units per inhabitant, as well as the accessibility of the postal units, should be ***balanced.***

3. Digitalisation of telecommunication services at all levels and application of world-wide technological achievements with the aim of creating technical conditions for quality competition.

4. Concessions in the basic telephone network, new technology networks and a register of the network for a period of **up to and beyond 10 years**, and permanent co-operation and interaction in the construction of economic facilities whereby profitable investment and installations can be made in telephone network, optical cables, etc.

5. Intensification of the rural telephone network with a special emphasis on the rural policy on telecommunications.

Radio and Television (RTV)

1. Application of world-wide technological achievements in the creation of **technical conditions** for quality competition and privatisation of the telecommunications, improvement of the infrastructure, better conditions for equipment purchase, and granting concessions for periods of up to and over 10 years.

2. Construction, and completion of the existing networks where there is no TV reception, investment in studios and external capacities and introduction of a wide scope of possible services (teletext with graphic animation, video and audio digitalisation with stereo performance, etc.).

3. Digitalisation and computerisation of the systems with successive transition from analogue to digital technology and connection to Internet and to other information systems.

4. Construction of transmitting satellite aerials and purchase of foreign radio-diffusion satellite channels (Eutelsat, Intelsat II-F41, etc.), construction of a ground satellite station.

5. Introduction of cable distribution (main station, main line, area centres and networks).

2. ENERGY

I. Introduction

Its energy supply is one of the basic requirements for the economic development of a country and for an improvement in the standard of living. The development of sources of energy and energy systems, with which constant increases of energy needs must be covered, requires an intensive investment which is a direct economic support for many economic sectors.

Energy resources available for use in our country and elsewhere are limited and finite. From this aspect, it is necessary to achieve the economic development of the society with as small a consumption of energy as possible. Reduced energy consumption has an additional, very important effect, which will become even more important in the future, and that is the reduction of pollution of the environment.

The purpose of this paper is not to solve the problem of the optimal energy supply of the country, but, in accordance with the goal of the integral project, to give basic directions for the development of the energy sector. They should also be used as a basis for working out a detailed study of the optimal supply of energy.

II. Fuels and Heat Energy

In this section the situation of the energy sector and the development of the basic energy structures and systems are analyzed, namely: coal mines, renewable resources, the oil refinery, the gas pipeline system, district heating systems, and geothermal systems.

1. The energy infra-structure

Currently there are two types of ***coal mines***. The first type consists of mines which are a part of the thermal porver capacities in Bitola and Oslomej, and the second type consists of mines which satisfy the needs of

industry and of the broad consumption of coal as fuel. The Suvodol mine, near Bitola, supplies coal to the REK Bitola thermal power plant. The remaining reserves of the mine are approximately 120 million tons. The Oslomej mine supplies the Oslomej thermal power plant with coal. 1.1 million tons are produced for the needs of the plant.

The Brik Berovo mine has a total geological reserve of approximately 2 million tons, and an annual production of approximately 100,000 tons. The Piskupština mine has a total geological reserve of approximately 3.8 million tons, with the possibility of this increasing, and approximately 100,000 tons per year are excavated.

The oil refinery has been functioning since 1982. According to the basic technological process it is a simple hydro-skimmer, which means that it is the simplest type of refinery. The basic type of oil for the technology which has been built into the refinery is Kirkuk (Iraq), but this does not mean that other similar types of oil cannot be processed in the refinery. The nominal capacity is 2,500,000 tons of crude oil.

The cutting of wood for heating is the oldest manner of supplying fuel for heating in these regions. This activity comes within the authorization of the forest economies which determine plots of land for cutting according to a strict procedure and implement this appropriately.

The first phase of the ***gas pipeline system*** is almost completed. In this phase the main pipeline has been constructed from the Bulgarian border to Skopje as well as a part of the main urban networks in the towns or cities en route to the city of Skopje. The basic length of the constructed pipeline is 165 km, and the working pressure in the main gas pipeline will be 40 bar. The capacity of the major gas pipeline is 800 million cubic metres per year.

In this country, currently, there are two urban ***district heating systems*** functioning, in Skopje and in Makedonska Kamenica, through which the heating needs of the connected consumers are met. The Skopje district heating system has a connected consumption per consumer of approximately 550 MW; it produces 650 million kWh heat energy annually and consumes approximately 70,000 tons of low sulphur fuel oil. The district heating system in Makedonska Kamenica is far smaller, with an installed heat power of 12 MW in the single heating plant, and a connected heating power of 4 MW. The fuel used in the plant is domestic lignite.

In the territory covered by this country there are several regions where ***geothermal energy*** is exploited. Research carried out in these regions shows a far greater potential for this type of energy source than that currently utilised.

2. Consumption in the period 1975–1995

The changes in energy consumption in the stated period are a result of the political and economic changes which have taken place in this period.

The period up to 1980 was characterized by a substantial growth of consumption of all kinds of energy and by a growth of all the macro-economic parameters. From 1980 to 1983 the growth in the total energy consumption decreased substantially, and from 1983 to 1989 very few changes took place in energy consumption. The period from 1989 to 1995 was characterized by a constant fall of energy consumption along with the fall in the macro-economic parameters on which such consumption depends.

3. Supply of necessary energy through imports

The goal is to assess the dependence of this segment of the energy sector on imported primary energy, to determine the form of energy imported and to define the manner in which the necessary energy is used by consumers.

Among the ***solid fuels,*** apart from lignite for the thermal power plants, the percentage of primary energy which comes from imports has been between 53.7% and 64.8%. The decrease in the percentage of import-dependent energy in the past couple of years is a consequence of the non-functioning of the industrial plants which use the imported solid fuels, and not a result of their substitution with domestic ones.

The satisfaction of the needs for ***oil derivatives*** is carried out totally from imports because Macedonia has no oil sources. Until the oil refinery in Skopje, which has lately changed its name to OKTA, started to function again, the import in this segment of the energy sector was of oil derivatives. Since the renewed start-up of the oil refinery, the import realized has been of crude oil and the derivatives received have been from domestic production.

Kosovo ***gas*** is of imported origin and in the years of its use it was the dominating gas fuel. TH gas is a product of a technological process and it is a totally domestic fuel. In the first years of the analysed period gas fuel was all imported. Since 1978, through implementation of TH gas, the percentage of import-dependence has been reduced and since 1988 only TH gas is being consumed.

4. Consumption and macro-economic parameters

The consumption of all kinds of energy is closely connected to the realized economic trends. On the one hand is the energy consumption related to production, and on the other that related to consumption in households. Both segments depend upon the economic results realized in the country, whose basic indicator is the gross national product (GNP). Because of this, this parameter is often placed in correlation with the consumption of certain types of energy, as well as with the total consumption of energy.

The GNP is usually defined according to two criteria: according to current prices in the state and according to permanent prices. In the analysis of the relation between energy consumption and the GNP, usually the realized GNP is analysed according to current prices, because in that case current energy prices, as well as the prices of products which in their production have need of an appropriate type of energy, are thus implicitly entered in the analysis, which is one of the important conditions in the consumption of energy.

If the GNP data are analysed according to current prices realized in the Republic of Macedonia, the average wages, the average price of electricity, and the specific consumption of certain types of energy – and if these are compared with the same from other countries – it can be seen that the situation here is exceptionally unfavourable.

5. Expected consumption in the period 1995–2020

The basic characteristic of consumption in the period up to the year 2020 is that this sector and the energy consumption in the country in the forthcoming period should behave in accordance with the other economic flows. It seems that if radical changes are not made in the energy consumption in the direction of bringing it within the framework of the achievements of the economy in the country, not only will we spend all our energy resources without any economic justification, but we will also contribute substantially to the ruination of the existing energy infra-structure.

Because of this, the assessments of the expected energy consumption in this part are given in accordance with the conclusions from the previous point, and in accordance with world expectations of countries like ours. These assessments should be understood as a goal which should be realized by a series of measures destimulating high energy consumption on the one hand, and stimulating economic activities with low specific energy consump-

tion per GNP unit, as well as the production of useful forms of energy with a minimum consumption of primary energy, on the other hand.

6. Covering the expected consumption

When defining the possibilities for meeting the expected consumption it will be necessary to assess the domestic potentials for meeting this consumption, and what part of the planned consumption will be supplied through imports.

6.1. Domestic energy resources

The most attractive domestic energy resources in the period 1995–2020, apart from hydro-energy, will remain the resources which are already serving the function of covering the needs – coal, cut wood and geothermal energy. In the forthcoming period, this group could also include certain renewable sources such as solar energy and bio-mass energy.

The ***coal*** reserves in Macedonia are mainly young lignite (soft brown coal) located in the following coal fields: the Pelagonija basin, Mariovo, Kičevo, Prespa, Katlanovo, Struga, Tikveš, Delčevo–Pehčevo–Berovo, Skopje and the Kumanovo basins.

The coal in the Pelagonija region has been the main domestic energy source for the past ten years, and will remain so for the coming twenty years. The **Suvodol** mine, from which the three blocks of the REK Bitola thermal plants are supplied, has confirmed remaining exploitable reserves of coal of approximately 120 million tons. The next coal-bearing potential of this mine is in the form of seams underlying the basic coal seam. Exploitable reserves of the main seam of the underlying seams are assessed at approximately 38.9 million tons with a coefficient of uncoverage of 1:2.8.

Confirmed exploitable reserves at the Brod, Gneotino, deposit are currently 56.2 million tons, with a coefficient of uncoverage of approximately 1:6.2, while the Živojno deposit has reserves of 69.1 million tons with a coefficient of uncoverage of 1:12.

The coal reserves in the remaining part of the exploitable field of the Oslomej surface mine are limited to 5.86 million tons of coal. The Oslomej West find has a balance of reserves of approximately 21 million tons.

Geothermal energy has already taken its place in the energy balance of the country recent period, and in the forthcoming period it can be expected that this type of energy will improve its place on the market.

Wood fuel will remain as an energy source in the forthcoming period and will satisfy a part of the needs of the households and of some industrial structures. The trend in the future should be such that the use of this energy source should decrease within limits, meaning only cutting trunks which are due to be cut according to vegetation life-span, and such cut timber should appear on the fuel market or should be used as raw material for other purposes.

At the moment the use in our state of the new renewable sources of energy such as ***solar*** in all forms, ***wind*** energy, energy from ***waste*** and ***biomass*** is very low. Bearing in mind that the period for which this strategy is being worked out is a relatively long one, two and a half decades, and that the development of technology for the use of these types of energy is very swift, it can be expected that within the period analyzed this type of energy source will start to be widely used.

6.2. Imported energy resources

Basic imported energy sources in the forthcoming period will be crude oil, natural gas and certain quantities of solid fuels (high quality coal and coke). Among these imported fuels the dominant place should be taken in the forthcoming period by crude oil because specific accommodations have been created in our country for its use.

Gas should take second place among imported fuels in the forthcoming period. For this to happen, certain investments will have to be made, especially in the domain of broad consumption, and norms must be defined for the use of gas.

High quality solid fuels remain one of the energy sources which will participate in covering the energy needs of the country, but efforts must be made to reduce the quantities used by replacing them with briquettes produced from domestic coal.

7. Reconstruction of the energy infrastructure

The energy infra-structure which is functioning currently and which should function in the forthcoming period will by and large reach its planned depreciation age in the period between 1995 and 2020. This means that for almost all the energy structure activities will have to undergo major reconstruction and revitalization in the forthcoming period.

In the two large ***coal mines,*** Suvodol and Oslomej, investments directed towards improvement of their technological state and for modernization of their functioning are being continuously made.

In the coal mines for broad consumption, Brik and Piskupština, it is imperative in the forthcoming period to find a solution to the small fraction. One of the possible solutions to this vital problem is briquetting of small fraction at the mine location.

In the ***crude oil refinery,*** in the forthcoming period, revitalization activities should be carried out with, in essence, three goals: to supply a continuous and safe working of the existing equipment, raising the quality of processed oil derivatives to the level demanded in the countries of the European Union and improvement of the economics of the existing technology.

The ***gasification system*** in the forthcoming period will not need special action as it will start its exploitation life in the period before us.

The ***district heating systems*** have been functioning for the past three decades and in the past couple of years major revitalization activities have been initiated in order to modernize the systems and to increase their efficiency in terms of energy and economics, as well as the security of delivery of heating energy. The second district heating system, in Makedonska Kamenica, is of relatively small capacity and therefore major reconstruction is not planned.

The ***system for exploitation of geothermal water*** is relatively new so that there need not be any significant reconstruction of the constructed part in the near future. The further construction of these systems should mainly be directed toward finalising their functioning through the construction of a reinjection system for used geothermal water, by which means an important ecological problem will be solved.

8. Construction of new facilities

Through the activities which will be carried out on the existing energy infra-structure its successful functioning will be made possible in the period analysed. The expected energy needs of our country in the forthcoming period also impose the construction of new plants.

Òpening new coal mines. The broad consumption in the forthcoming period should be supplied from two sources. First are the existing small mines, Brik and Piskupština, and the potential ones, Zvegor Stamer and Star

Istevnik Pančarevo, and second are the parts of the mines supplying the thermal power plants which are not economical for exploitation for the production of electricity.

Construction of factories for the production of briquettes from coal. One of the possibilities for an increased use of domestic coal for broad consumption and industry is a new processing into briquettes. In such a form it can be used as a substitute for some of the high quality imported coal and some of the dried lignite which is used in domestic metallurgy. Potential locations for construction of these facilities are the mines for broad consumption and the mines for the supply of the thermal power plants.

The gas pipeline system. The development of this system should continue through a city network and make it possible for as many customers as possible to be connected to the system. Along with the increase in the possibilities of connecting up industrial consumers, the construction of the networks for broad consumption of gas should start and the connecting up of households should begin.

Expansion of district heating systems. Expansion of the existing system is expected in the forthcoming period and construction of new ones in larger towns/cities where the density and the size of the potential consumption make these systems most favourable for the satisfaction of heating needs. The first priority for construction are the systems for Bitola and Kočani, and later potentials exist for: Prilep, Tetovo, Veles, Štip, Kumanovo and Strumica.

Combined sources of heat and power. The true locations for the implementation of larger projects such as these are the district heating systems. Preliminary analysis shows that there is an exceptional energy and economic suitability for the construction of such a structure on the location of the "Istok" heating plant with a gas turbine and a boiler utilizer with a power capacity of approximately 100 MW and a heat capacity of 150 MW.

Construction of an oil pipeline. The construction of an oil pipeline from a port to the Skopje refinery is an idea which has been present since the beginning of the construction of the refinery. At that time the most favoured variant was an oil pipeline and a product line from the port of Thessaloniki to the Skopje Refinery. In the past few years an oil line connecting Black Sea ports with ports on the Adriatic Sea has also been under consideration.

III. Electric Power System of the Republic of Macedonia

The electric power system of the Republic of Macedonia from 1945 to 1990, was developed as a part of the single electric power system of the former SFR of Yugoslavia. Up to 1995 the situation in the electric power system of Macedonia was influenced by the Greek embargo and the sanctions imposed by the United Nations against FR Yugoslavia. The past five-year period has been filled with many unusual events which have also influenced the electric power system of Macedonia.

1. Short-term activities – until the year 2000

It has been planned to realize these activities in order to improve the performances of the structures and facilities which are of special importance for the management of the electric power system.

The Mavrovo flow. As a part of the revitalization of the Mavrovo hydro-electric plants it is time to realize an uptake of the waters flowing from Mount Korab and the Lukovo Pole dam. The construction of these hydro-technical structures, already planned in the initial project documentation of the Mavrovo hydro-energy complex, will increase the capacity of all three hydro-power plants, Vrben, Vrutok and Raven, by approximately 25% and the whole system will definitely approach design performances.

The Crn Drim flow. The Špilje and Globočica hydro-electric plants have been exploited for approximately 25 years with a relatively large number of working hours. A special problem for these two hydro-plants is their low installed flow which in the spring months of almost every year brings them to a situation of being constantly engaged. Within the framework of the equipment revitalization of the power plants and the intake organs, an increase of the installed flow of not less than 50% must also be an imperative.

The River Treska flow. In the period up to the year 2000 the construction of the hydro-electric complex on the River Treska should be finished. A rationalization of the planned structures must be carried out in this phase in order to obtain as high a production as possible. This means the assessment of a solution which will make it possible through the construct of a derivation Kozjak hydro-electric plant, to eliminate the need to construct a new dam, hydro-electric plant and distribution mechanism at the Matka II site.

This rationalization will greatly improve the economic parameters of the whole electric power complex satisfying all the previously listed functions of the system.

The construction of the Kozjak dam which will supply a substantial primary reserve of water is a pre-condition for the further construction of hydro-electric plants on the River Vardar. Along the upper reaches of the River Vardar there are no suitable accumulations of water which would hold the great waters characteristic of this river, so that the building of the Kozjak dam must precede all other activities on the main river. Bearing this statement in mind, the issue of the justifiability of the finalization of activities already started must not be brought into question, not, of course, excluding the possibility of rationalizations or improvements.

Parallel with the implementation of the above-mentioned undertakings, activities should be intensified in order to master modern high quality methods of planning the work and development of the electric power system, as well as innovations in the already obsolete projects, and certain potential locations for the construction of hydro-systems. First of all is the hydro-energy complex on River Crna in the Mariovo region, where there is an ideal location for the construction of a PAHEC – pumping accumulation hydroplant.

Activities at thermal power plants. Bearing in mind that our thermal power plants are relatively new and in a good state of exploitation, which can be seen from the functioning to date of approximately 6,500 hours per year of the installed capacity, up to the year 2000 the principal interventions should be directed toward the lignite mines.

In Oslomej the activities already started towards the opening of the western deposit must be completed, making continuous functioning of the thermal plant possible.

In Suvodol it is necessary to activate the exploitation of the seam under the basic coal seam of the main deposit, substantially improving the exploitation characteristics of the mine and extending the life-span of the exploitation.

Activities in the transmission network. The JP "Elektrostopanstvo" (*Power economy*) of Macedonia does not have an appropriate programme for the development of the transmission network or for connections to neighbouring electric power systems, especially in an East-West direction. An updating has not yet been made of the planned transmission structures which were conceived under previous conditions, i.e. before the independ-

ence of the country, or of the electric energy system. In this period special attention should be given to the realization of appropriate studies which will examine this problem and suggest solutions.

2. Construction of energy facilities – after the year 2000

Thermal power plants using solid fuel. We reckon that by the year 2000 the exploitation of the underlying seams will have been realized in REK Bitola and the western deposit at REK Oslomej. This will make possible the unearthing of up to 6.7 million tons of coal per year at REK Bitola and up to 1.3 million tons per year at REK Oslomej. This quantity of coal will make possible the production of a gross quantity of approximately 5,200 GWh per year at both thermal power plants, i.e. an engagement of a maximum of 800 MWe of power during 6,500 hours per year up to 2015. By that time the main coal deposits at Suvodol and Oslomej will have been exhausted, and the planned period of exploitation of the equipment without renovation will have been completed: for the blocks at REK Bitola 100%, 96%, and 81%, and at Oslomej 100%.

These facts lead us to conclude that conditions do not exist for the construction of additional capacities at the Suvodol and Oslomej sites because of the impossibility of digging additional quantities of coal without substantially decreasing the exploitation life-span.

The situation after 2015 will be much more complicated and, at this moment, has not been sufficiently assessed technically and economically. In order to carry out a renovation of the existing equipment potential sites for coal mines must first be examined: Brod-Gneotino, Živojno, and Mariovo near REK Bitola, and Popovjani and Stragomište in the vicinity of Oslomej. This activity should provide an answer to the issue of possible quantities of annual yearly extraction and transport of lignite to the existing thermal power plants as well as that of the necessary funds for the renovation of the old mining equipment from Suvodol and Oslomej and its transfer to new deposits.

Thermal power plants using liquid fuel. By the year 2000 the thermal TEC Negotino power plant which uses liquid fuel will have taken on a substantially more active role, especially in hydrologically unfavourable years. For the functioning of this power plant, with an installed power of 210 MWe in the basic mode, and an annual engagement of 6,500 hours installed capacity, approximately 360,000 tons of fuel oil must be supplied, or else 960,000 tons of raw oil must be processed in our own refinery. The transport of such a large quantity of fuel will be a separate problem. With such an in-

creased mode of engagement of TEC Negotino the costs of maintenance will increase substantially.

Hydro-power plants. After the year 2000 the electric power system of Macedonia will need a PAHEC – pumping accumulation hydro-power plant. The basic function of this structure will be:

- to realize the hydro-potential of the natural flow at the site of the dam, i.e. to function as a standard hydro-power plant;
- to make possible the satisfaction of the daily diagram of burdening of the electric power system of Macedonia from the point of view of daily variations in power which already amount to 300 MWe;
- to ensure that the supply of electricity from neighbouring electric power systems is achieved at favourable time intervals in the daily diagram.

On the territory of R. Macedonia there are in effect no sites for damming which are *a priori* economically viable for the construction of standard hydro-electric plants. At the Galište and Čebren damming spots on the River Crna, only through the construction of a PAHEC can the technical and economic effects be sufficiently favourable to justify the construction. Through the construction of the HEC Kozjak hydro-electric plant favourable hydrological conditions will be created for the realization of HEC Veles and HEC Gradec, but only if the problems of the displacement of the railway are solved and if the unreal idea of the navigability of the River Vardar is finally abandoned. The mention of the possibility of the construction of the HEC Boškov Most exhausts the list of hydro-electric plants for the Republic of Macedonia for the construction of which one could say that there is a certain technical and economical justification.

3. Prediction of consumption

The total electric power needs in the Republic of Macedonia in 1995 were approximately 6,200 GWh gross value. The electric power system of Macedonia is capable of satisfying these needs through its own production, in a year of average rainfall, with 1,000 GWh (16%) from hydro-electric plants and 5,200 GWh (84%) from thermal power plants. In hydrologically unfavourable years the deficiency of the hydro-electric plants can be covered by production from TEC Negotino using liquid fuel or through imports from the neighbouring systems.

For countries in development, such as is Macedonia, the time required to double the electricity needs is 20 years, i.e. the average annual

growth rate amounts to 3.5%. Such a growth rate of the electric power needs is determined bearing in mind the need for an accelerated economic development together with an increased efficiency in the use of electric energy. Bearing in mind the needs for electric power we can determine the amount for 2015 at 12,400 GWh.

Based upon the, by now, defined development of production capacities in the electric power system of Macedonia, in the year 2015 the electric power needs can be satisfied in an average wet year by the 2,000 GWh (16%) from the hydro-electric plants and 5,200 GWh (42%) from thermal power plants, and the remaining 5,200 GWh (42%) from another source. In hydrologically unfavourable years the deficiency of the hydro-electric plants can be covered by production from TEC Negotino, or through imports from the neighbouring systems, but this additional supply will be twice as much. This means that the importance of TEC Negotino as a reserve capacity will increase.

Thus, by 2015, apart from important investments in the construction of the stated hydro-electric plants and in the opening of new lignite mines, new thermal capacities will also have to be constructed. There remains only the issue of the choice of type of appliance and of fuel, i.e. whether they will be appliances using gas, fuel oil, coal or uranium. As the Republic of Macedonia does not have the necessary quantities of any source of energy available the supply must come from imports. Bearing in mind the stated conclusions, it is at present not advantageous to review the technical and economical parameters on possible variations of choice, and it is not the intention of this study to suggest an actual decision on the construction of new capacities. The decision must be taken after a studious approach, but not later than the year 2000.

IV. Economic Problems in the Energy Sector

1. Price policy

The energy price policy is one of the important factors affecting the normal functioning of the sector and its proper development. The greatest problem concerning the price policy has been much more a result of the social policy of the state and the protection of the standard of living than a result of the true price of energy.

In the price policy two basic principles must be respected in the forthcoming period:

♦ The prices of all fuels should be determined on a market basis with appropriate protection of domestic production, by which is understood protection preventing monopolistic behaviour on the part of the domestic producers, while protecting them from powerful foreign competition.

♦ The prices of all types of energy distributed to consumers through energy systems should be determined according to a defined methodology based on a recognition of certain levels of costs and recognition of a certain profit for the functioning of these systems. In this manner not only is unhindered functioning ensured, and the development of energy systems, but also incoming capital in the energy sector.

2. Forms of ownership

In all domains of the energy economy in this country the presence of all forms of ownership – state ownership, mixed ownership, and totally private ownership – must be possible. It is also necessary to have no limitations in relation to foreign investments. The legislative measures for the energy sector which are currently being prepared and passed should, at an implementable level, deal with the issue of concessions in energy resources and the question of the leasing of energy facilities. A new possibility is opened up by the legislative regulations in this domain for the investment of new capital not only in new investments but also in existing facilities, systems and activities which at the present level of organization are not functioning profitably. Such an approach to the organization of the energy sector opens up new possibilities for its development, while the state may to an appropriate degree retain its influence on the sector through appropriate measures.

V. Environmental Impact

The energy sector is one of the greatest polluters of the environment. From the continuous increase in energy needs and an adequate increase in the production of various types of energy, pollution of the environment by harmful materials issuing from energy plants will increase substantially, especially from coal and oil. When fossil fuels have a dominant position in the balance of primary energy, as is the case in Macedonia, it is clear that the greatest influence of the energy plants is on the air, the influence on water is second, then comes soil; and the radioactivity in the ashes from thermal power plants using coal is a specific problem.

In our country the damage done to the environment (health, agricultural produce, forests, etc.) from flue gases from fuel combustion alone (in electricity plants, heating plants, traffic, etc.) is assessed at over a billion and a half dollars per year, calculated according to American norms. If this is divided by 15 (the relation between the GNP per capita USA/Macedonia) we get an amount of approximately one hundred million dollars per year.

The situation in terms of pollution from carbon dioxide and sulphur monoxide in Macedonia is becoming critical, even in comparison with international criteria, as the amounts emitted from the energy sources alone are close to the upper limit defined by international institutions.

A reduction of harmful emitted materials can be achieved through improvement of energy efficiency and the use of higher quality fuels, and through purification of flue gases before they are emitted into the surroundings. Standard filters have been built into our thermal plants, but they are not capable of reducing the harmful gasses.

Macedonia has signed many international conventions and protocols for environmental protection, some others being in a preparatory phase. At the same time, if we intend to make an image of clean food exporters, healthy tourism, etc., we must have much higher environmental concerns while conceptualizing and realizing the economy and particularly energy policy. In accordance with the existing situation, it would be a quite complex and long-term national task.

VI. Immediate Activities

By the year 2000 reliable data for the prediction of the dynamics of growth of energy requirements must be supplied. By the same deadline qualitative technical and economic indications regarding the energy facilities which could meet these needs must be determined.

On the basis of such information a detailed programme for the development of the energy sector in the Republic of Macedonia must be drawn up. According to available information, absolute priority must be given to the fourth block in REK Bitola, to the second block in TE Negotino, a thermal power plant using gas in Skopje and the doubling of the utilization of the hydro-potentials.

An accurate determination of the direction to be taken by the energy sector development is a prerequisite for successful economic growth and, therefore, it is of special importance that the concrete decisions must be taken on scientifically confirmed principles.

3. WATER SUPPLY INDUSTRY AND WATER RESOURCES

I. Natural Factors

The Republic of Macedonia has all the various relief formations present in it and there are large variations in altitude, from approximately 500 m above sea level by the River Vardar at Gevgelija, to 2,764 m above sea level on Mount Korab.

The study entitled *The Water Economy Basis of Macedonia* (1976) and the *Study on Integral Development of the Vardar River Flow* (1978) confirmed that the agricultural surface area in the Republic of Macedonia amounts to 1,314,000 ha or 51.1% of the total surface area and is mainly located in 14 regions, of which the arable land amounts to approximately 660,000 ha.

Macedonia is under the influence of Continental and Mediterranean climates which are not separated from each other by a sharp border.

According to its geographical position and the closeness of the Aegean Sea, Macedonia should have a Mediterranean climate. Yet the other factors alter it substantially, with different influences in various regions.

Average yearly temperatures, according to data from the Hydro-meteorological Institute, in most of the country vary between 9.6°C and 14.2°C. Winds are of moderate appearance and strength, and mostly come from the north. Other climatic factors also arise as a result of both climatic influences. *Rain*, an important climatic element, falls in two more pronounced periods – in spring and in autumn – and the summers and winters have smaller quantities of rain. According to data from the 181 rain measurement stations, over a period of 40 years (1950/51–1989/1990) the average yearly rainfalls in Macedonia have been from 366 mm in Gradsko up to 1,044 mm in Lazaropole. Approximately 19 billion m^3 of water have fallen on the surface of Macedonia, which is equal to an average water precipitation of 733 mm.

II. Water Abundance

Water from the surface area of Macedonia flows along six flow regions. In terms of area, the flows of the rivers Vardar, Crn Drim and Strumica are larger, and the remaining three flows account for a much smaller part (1.1%) of the area of Macedonia.

The river network making up the elements of the three basic flows is medium developed.

In the area of the Republic of Macedonia, like the rainfall, the flows also vary in their outflow, that is to say, the specific outflow in $l/s/km^2$ is different in certain parts of the country and in various flows.

As an average for the whole area of Macedonia, the specific flow is approximately 7.0 $l/s/km^2$. In certain parts of Eastern and Central Macedonia it is 5.0 $l/s/km^2$ or less and, as opposed to this, the regions richest in water are those of the mountainous zones of Western Macedonia, where the specific flow is the greatest in the whole country and amounts to 30.0 $l/s/km^2$.

Distribution of flows throughout the year is also uneven. Maximum flows appear in the month of April, and the minimum is in August.

According to the study *The Water Economy Basis of Macedonia* (1976), over a period of 20 years (1949/50–1961/62), the water flowing out of the Macedonian rivers has been calculated at $7,816 \times 10^6$ m^3.

Over a period of 40 years (1950/51–1989/90), in which there were also almost 10 years of drought, average flows in the river network have decreased by 27%.

Table 38

River	Average flow Q m^3/sec	Total yearly average flow V $m^3 x 10^6$	Total yearly average flow for a medium dry year V $m^3 x 10^6$
Vardar	154.0	4.851	3.396
Crn Drim	48.5	1.527	1.069
Strumica	4.9	154	108
Total:	*207.4*	*6.532*	*4.573*

The flows given in Table 38, which relate to a 40-year period and have been used in the balancing of available water and needs for water, are more reliable and realistic.

Underground waters in Macedonia have not been examined or determined sufficiently so that it is not possible to calculate their quantity with adequate precision, but they have been assessed at approximately 520 x $10^6 m^3$.

Springs are a special type of surface water. They are in fact underground water which bursts out of the land surface through cracks and water-permeable layers. According to the study *The Water Economy Basis of Macedonia*, there are a total of 4,414 registered springs of varying abundance, variously distributed in the river flows they belong to and at different altitudes, of which 51 are mineral springs and 11 are thermal mineral springs.

Of a total of 4,414 registered springs, 3,000 have an abundance of 1.0 l/sec, 1,414 have an abundance greater than 1.0 l/sec, and only 59 are have an abundance greater than 100 l/sec, these last being where most of the underground springs are to be found, namely in the western part of Macedonia.

Based upon the analysed data, the Republic of Macedonia has the following quantities available stated as average values:

- quantity of flowing water $6.532 \times 10^9 m^3$.
- quantity of underground water $0.520 \times 10^9 m^3$.
- spring water as a part of flowing water $0.420 \times 10^9 m^3$.

Lakes: There are three larger natural lakes on the territory of Macedonia – the lakes of Dojran, Prespa and Ohrid – as well as numerous mountain lakes varying in quantities of water (Table 39). Lake waters have limitations in their use for water supply purposes.

Table 39

Lake	Water mark at normal level m	Water surface km^2	Maximum depth m	Total water quantity $m^3 x 10^9$
Lake Dojran	148.0	42.7	10	0.427
Lake Prespa	853.7	319.9	54	4.775
Lake Ohrid	693.7	353.9	300	50.683.43

Eighteen large artificial lakes have been constructed in Macedonia, as well as 100 small ones (called water accumulations) with a net water accumulation of over 500 mil. m^3.

Monitoring of water quality is carried out at 60 measuring stations on the river network and the lakes, in accordance with a Programme which is prepared each year.

Water in the river network in the central and lower flows is mainly of class II and III, and in dry periods, when flowing waters are at their minimum, even of class IV. Lake waters, in their shore belts, are of class II and III, while class IV also appears in Lake Dojran.

The smaller, artificial lakes have a positive influence upon the water quality downstream from them, as they effectively sediment polluting materials flowing in from the upstream part.

Because of unfavourable climatic conditions – insufficient and badly distributed rain, long dry periods and high temperatures, etc. – irrigation is a necessity for intensive agriculture, while for some plant cultures, such as rice, it is a requirement for their very existence.

In the forthcoming period, development of the water supply will be carried out in three directions: water regulation; water use; and water protection.

Water needs

Water is an essential element for various purposes in all areas of life, but the major consumers are: the population, industry, agriculture, fishing, tourism, sport, trades and crafts, etc.

• *Population*

According to statistical data on the current number of citizens and the calculated increase by the year 2025, and bearing in mind the documentation worked out in the field of water supply, the water needs are the following:

Table 40

	Current needs (1995) m^3/year	Future needs (2025) m^3/year
Population	361,546,333	590,932,817
Industry	270,134,297	843,021,100
Total:	*631,680,630*	*1,433,953,917*

• *Agriculture*

Of the approximately 400,000 ha suitable for irrigation, systems have been constructed for the irrigation of 173,000 ha, which, in medium dry years (75% replenishment), need approximately 950 x $10^6 m^3$ water. Of this 500 x $10^6 m^3$ is water from accumulations (artificial lakes) while 450 x $10^6 m^3$ is flowing water used during the season.

For the irrigation of a further 227,000 ha, bearing in mind that some systems have not yet been constructed, a gross amount of 1,371,184,980 m^3 more water is necessary (with 10% losses).

Thus the following quantities are necessary for irrigation:

- Current needs (year 1995) 950,000,000 m^3
- Water needs for surface areas not yet constructed 1,466,184,980 m^3
- Total water needs in 2025 2,416,184,980 m^3

• *Fishing*

In Macedonia, under the current conditions, there are five fish-farm pools for the production of carp with a surface area of 730 ha, and 19 fish-farm pools for trout with a surface area of approximately 18,000 m^2, not counting the cage production of fish in water accumulations. No expansion of fish pools which would require new quantities of water is planned.

Use of water for electric power production

The total technically useful hydro-electric energy potential in Macedonia amounts to 6,440 GWh. With the existing hydro-electric plants, approximately 23% of the hydro-energy potential is being utilised.

In the future, the construction of new hydro-electric plants awaits us, making it possible to utilise the technical energy potential of water much more.

Ecological needs

From the ecological standpoint, the need for water is present everywhere in various forms. This especially relates to maintaining what is known as a "biological minimum" in the river beds. In *The Water Economy Basis of Macedonia*, the biological minimum has been determined as being 10 % of the average river flow.

Table 41

Total water needs

	Current needs (1995) m^3/year	Future needs (2025) m^3/year
Population	361,546,333	590,932,817
Industry	270,134,297	843,021,100
Agriculture	950,000,000	2,416,184,980
Ecological needs	653,200,000	653,200,000
Total:	*2,234,880,630*	*4,503,338,897*

III. Balance of the Water Resources and Needs

Total flows of water in the river networks of Macedonia are given in Table 42, as well as water needs now and in the future (the year 2025).

Table 42

Water needs m^3x10^6

Available water $m^3x\ 10^6$	Current needs (1995)	Difference	Future needs (2025)	Difference
6,532	2,234.88	+4,300.12	4,504.33	+2,028.67

Observed globally, and counting on 80% return of waters from the water supply and 20% from irrigation, the river flows of the Vardar and Crn Drim cover all the needs of water consumers, while the Strumica flow is deficient in water. Analysed according to parts of the river flows, there is also a water deficiency in the flow of the Bregalnica.

Seen globally, the balance of available and necessary waters is positive. Yet, for the period for which the Strategy for the Development of the Water Economy has been worked out, it is necessary to plan re-circulation of water as well. This will be achieved through the construction of reversible energy plants; through tapping drained waters from the irrigation system and their re-use; and, finally, through re-use of purified waste water from the city sewage systems, for which the degree of purification must be determined .

There is already re-use of once-used water, even now: for example, tapping waters drained from the irrigation area in the Bregalnica river-bed,

and its subsequent re-use. Such a practice should be expected in the future in the other irrigation systems also.

IV. Supply of Water for the Population and Industry

The state of the water supply in the Republic of Macedonia, even though there has been considerable construction, is not yet satisfactory. In some regions especially, the supply is such that urgent measures are necessary to improve the water supply for the population and for the economy.

The existing water supply capacities cannot supply sufficient quantities of high quality water, which is particularly noticeable in the more highly populated areas of East Macedonia.

The water supply in smaller inhabited places and in villages has largely been solved through separate water structures and installations.

A general characteristic of the local waterworks is their poor equipment and insufficient hygienic and technical protection of the sources.

Natural springs, underground water (through well systems), flowing river water and accumulation waters are used as sources of water. In total, there are 194 registered and constructed water-pipe networks in Macedonia.

Two regional water supply systems have been built.

The basic drawbacks of the greater part of the systems of water supply in the Republic of Macedonia are: unfinished construction, insufficient quality control, great loss of water, insufficient sanitary protection of sources, etc.

The initial concept and goal of the development programme for the water supply is that every citizen of the Republic of Macedonia should, in the future, obtain a sufficient quantity of drinking water, and that all the current and planned future needs for water must be met.[22]

Quality of water and environmental protection give a new dimension to water management. *The latest data on the degradation of some of the*

[22] For the territory of the Republic of Macedonia, valid documents for development planning of water resources are:

* *The Water Economy Basis of S.R. Macedonia* (1976);
* *Study on Integral Development of the Vardar River Flow* (1978).

Both the above-mentioned documents should be brought up to date, bearing in mind the existing conditions and changes in the 20 years since their first being enacted as law.

current sources of water imply that very strict measures are necessary for the protection of water resources of all sorts.

Development of the water supply should be carried out through drawing up plans and programmes which would include:

- construction and reconstruction of existing systems for supplying water bringing these up to an optimal state;
- introduction of new technologies;
- determining priorities in the construction of regional water supply systems;
- transfer of surplus water from regions richer in water to those poorer in water (from West to East);
- taking into account water supply as a criterion when planning industrial capacities.

V. Irrigation and Water Drainage

Irrigation appears as a key condition for stable and intensive agricultural production, bearing in mind the insufficient and badly distributed rains during the year and the occurrence of droughts.

Of a total of 670,000 ha arable land, approximately 400,000 ha is suitable for irrigation. By 1995, of a total possible 400,000 ha, irrigation systems had been constructed on approximately 173,000 ha. 173,000 ha have only basic structures, while 140,000 ha have an irrigation network and other accompanying structures. It has been assessed that, under optimal conditions, from 124,000 ha up to 126,600 ha could be irrigated. A total of 106 irrigation systems of varying sizes have been built with net sizes of 10–29,315 ha.

In the irrigation systems, the cultures with leading roles are industrial and horticultural cultures, fodder, fruit plantations and vineyards with irrigation norms from 3,500 to 7,200 m^2/ha. The Bregalnica system covers rice fields for which approximately 20,000 m^2/ha are necessary.

The yields from agricultural cultures with irrigation are 2 to 5 times greater than those of the same cultures without irrigation.

Maintenance of plant and structures, both running maintenance and maintenance involving investment, is an important factor for their functioning.

The utilisation of irrigation systems in Macedonia under normal hydrologic conditions is approximately 49% to 78%, or on average 68%, which is not sufficient.

Irrigation is one of the pre-conditions for the Republic of Macedonia to utilise its comparative advantages in agricultural production. In the Investment Programme for the Public Sector prepared by the Government of the Republic of Macedonia, the water economy as a whole, and irrigation as a segment of the water economy as well, are treated as priorities in directing investments.

The Development Strategy planning in the Irrigation Sector should move towards:

- Reconstruction – rehabilitation and modernisation of existing irrigation systems.
- Finalising and equipping the initiated irrigation systems.
- Construction of new irrigation systems.

In order to bring the larger irrigation systems up to an optimal condition for exploitation, and in order to reduce water loss to approximately 10%, it is necessary to carry out the following:

- Reconstruction – rehabilitation of water distribution installations.
- Introduction of regulation of the level and flow of water in the main channels.
- Introduction of a measurement system for the flow of water.
- Replacement and modernisation of hydro-mechanical equipment and irrigation equipment.
- Completing and equipping the initiated irrigation systems or parts of systems whose network is in the main not yet completed (approximately 30,000 ha).

Construction of new irrigation systems

In the period up to the year 2020 irrigation systems should be built on 291,558 ha, which is the foreseen irrigation potential in the Area Plan.[23]

The influence of the ownership structure of the irrigation systems

In the current situation, ownership of the agricultural land which uses irrigation systems, as well as that which is not covered by irrigation systems,

[23] *Water and Water Economy Infra-structure*, Area Plan of S.R. Macedonia, 1988.

is in part private and in part public. Private ownership accounts for approximately 55% of the larger irrigation systems, such as for example the Bregalnica, Tikveš, Streževo and other systems, while 45% is publicly owned. This relation is somewhat different in the smaller irrigation systems. There are systems which are on 100% private land, and there are systems which are on 100% publicly owned land. Experience to date has shown no negative effects arising from the form of ownership. There will most certainly be privatisation of land surfaces in the public sector in the future, so that most of the irrigation systems will function in the Republic of Macedonia on areas in 100% private hands. In that case no real difficulties are expected in the exploitation of the irrigation systems. However, a period of co-ordination is expected.

Four larger drainage systems have been built in the Republic of Macedonia with a total area of 68,000 ha, and a large number of small irrigation systems.

For efficient removal of the surplus water from the surface areas of the systems it is necessary to:

- rehabilitate the basic drainage network;
- rehabilitate the regulated riverbeds in the drainage systems;
- rehabilitate the free protective channels, and
- construct a detailed drainage network in all drainage systems.

Protection of water in rivers and lakes from pollution

Implementation of correct measures for waste water through structures for the purification of water from populated areas is a precondition for a healthy life and the urban development of all populated places. Solving these problems, as a rule, is belated, creating not only bad sanitary and aesthetic living conditions, but also polluting and threatening the environment over a broader region.

Protection of water, first of all, requires elimination of or decrease in pollution to levels prescribed by the laws and regulations. A dominant source of pollution is waste water, but other sources of pollution cannot be ignored either, such as wash-off from polluted surfaces and roads, erosion, chemicals used in agriculture, etc.

Up to now, sewage systems have been built only in populated places with the status of towns or cities – municipal centres and in certain exceptional cases places involved in tourism, administration, economic plants, etc.

No populated place in the Republic of Macedonia has a purification station for waste water except those for the protection of Lake Ohrid and Lake Dojran, which are currently under construction. A purification station is also being built for the waste water from Strumica.

The protection of water in rivers and lakes from pollution imposes a need for analyses, improvement and definition of strategies for solving this problem, namely:

- Defining the sources of pollution.
- Assessment of the increase in sources of pollution in the interests of meeting the needs for development.
- Assessment of auto-purification possibilities for water flows and lakes.
- Possibilities of improving the smaller water flows.
- Defining a biological minimum for rivers.
- Preservation of water which is still clean (surface and underground).
- Reconstruction or elimination of sources of water pollution.
- A basic principle of the strategy is that sustainable development of the protection of water be defined as development which, with the satisfaction of the needs of current generations, will not threaten the rights of and the possibilities for succeeding generations.

The educational system must supply staff personnel with sufficient technical and professional education for the protection of waters in urban planning (civil engineering), technological processes, legal regulations, etc.

It is necessary to organise water information centres.

The role of the state in the development of the water economy

According to the Constitution of the Republic of Macedonia of 1991, water is defined as a part of the national wealth. In accordance with these regulations, a constitutional obligation exists for the state to regulate through its laws the conditions for the development and utilisation of water and its protection from harmful influences, protection of water from pollution, and maintenance of the quality of water for future generations.

Water economy plant and structures, especially the larger ones, are most often multiple use structures, and of special importance. The structures

which have been determined for one purpose also have a secondary, mainly positive, influence on several sectors of life and the economy. Water supply systems, being necessary for survival, and irrigation systems, being necessary for the development of agriculture and food production, are important elements for ranking investment priorities. Therefore, the state must undertake to finance the construction of basic structures from the state budget – dams, main distributive structures (channels, pipelines), protective structures, etc.

Financial means, with favourable credit conditions and a grace period contributing to a painless connection to the existing irrigation systems, must be provided for a detailed network of channels.

Similar interventions on the part of the state are also necessary for the construction of water supply systems in populated areas. In this sense, it is necessary to develop a financing strategy, that is to say a Strategy on the Influence of the State in the Water Supply Sector.

Assessing water

Water as a precondition for life, and for the development of agriculture and industry, must also have an appropriate price. In the previous period of a planned economy, and even now in the period of transition, water for any sort of use did not, and still does not, have an appropriate price. In the context of a market economy, water too must be treated as an economic category with its own market value.

Of economic importance is the necessary outlay for the maintenance of the already existing plant and structures of the water economy systems which will make an adequate utilisation of the available water possible.

It is necessary to work out a methodology for determining the price of water, based upon the ordinances of the Water Law and including all the component elements that the price of water depends upon. The increasing pollution of water and the growing demand for clean and high quality water make a market determination of its price essential.

4. ENVIRONMENTAL PROTECTION

I. Current State

Taking into consideration the reasons for the current state of the quality of the environment – the existing and the potential activities resulting in pollution and degradation of the environment in the Republic of Macedonia – it is imperative that extensive measures be taken to put an end to or to improve the existing conditions, in accordance with available modern techniques, technologies and standards.

The current state of ecological degradation of water and air in the Republic of Macedonia can be illustrated by the following data.

16.6% (or 4,286 km^2) of the total land surface of the Republic of Macedonia is affected by a high degree of or excessive erosion (torrential categories I and II).

Medium to weak erosion (categories III and IV) affect 8,661 km^2 or 33.7% of the territory.

If all other cases of milder erosion are taken into account, the total of the territory of the Republic of Macedonia affected by some kind of erosion amounts to 66.5%.

Pluvial and water erosion, manifested in surface soil being washed away during stronger and torrential rains, are considered the principal causes of erosion in the Republic of Macedonia.

The growing degree of erosion and torrents in the Republic of Macedonia can also be seen in the large number of torrential river flows. According to the categorisation of torrents made by the Institute for Water Utilisation of the Republic of Macedonia, 15,888 torrents have so far been registered.

Table 43

Number of torrents by categories and by basins

	I	II	III	IV	V	Uncategorized	Total
The Vardar Basin	112	199	316	287	199	125	1,238
The Crn Drim Basin	23	28	61	72	17	10	211
The Strumesnica Basin	6	7	28	50	48	–	139
	141	234	405	409	264	135	1,588

With regard to their quality, the waters of the Republic of Macedonia in the period 1990–94 can be classified as follows:

Table 44

Classification of surface waters from the river-flows in the Republic of Macedonia in the period 1990–95

River	1990	1991	1992	1993	1994
Vardar	I, II ,III , IV	I, II, III, IV	I, II, III, IV	I, II, III, IV	I, II, III, IV
Treska	I, II, III	I, II, III	I, II, III, IV	I, II, III	I, II, III
Bregalnica	II, III, IV	II, III, IV	II, III, IV	II, III, IV	II, III, IV
Crna Reka	II, III, IV	II, III, IV	II, III, IV	II, III, IV	II, III, IV
Crni Drim	II, III	II, III	II, III	II, III	II, III
Radika	II, III	II, III	II, III	II, III	II, III
Strumica	III, IV	III, IV	III, IV	III, IV	III, IV

Class I: Water in its natural environment, which can be drunk and used in the production of food products and fish breeding.

Class II: Water which can be used for bathing and recreation, breeding of certain types of fish, and, if conditioned (by a processing method), it can also be used as drinking water.

Class III: Water which can be used in irrigation, and, if conditioned, also in industry.

Class IV: All other types which can be used for other purposes provided they have been adequately processed – conditioned.

The analyses of the quality of the air in Skopje, the largest urban centre in the Republic of Macedonia, show the following parameters:

Table 45

Air Quality in Skopje over a 10- year period, in terms of SO_2 content

Parameters	Central city area	Suburbs
C on average	from 92 to 100	from 3 to 22
C max.	from 256 to 1.130	from 65 to 267
N>MPC	from 14 to 85	from 0 to 4

C on average = average annual concentration of SO_2 (mg/m^3).
C max. = maximum value of SO_2 concentration (mg/m^3).
N = number of days in the year with SO_2 concentration above the maximum permitted concentration (MPC = 150 mg/m^3).

Table 46

Air Quality in Skopje over a 10-year period, in terms of smoke concentration

Parameters	Central City Area	Suburbs
C on average	from 45 to 75	from 14 to 24
C max.	from 217 to 718	from 31 to 265
N>MPC	from 68 to 156	from 0 to 50

C on average = average annual concentration of smoke (mg/m^3).
C max. = maximum value of smoke concentration (mg/m^3).
N = number of days in the year of smoke concentration above the maximum permitted concentration (MPC = 150 mg/m^3).

II. Medium-Term Measures

The successful realisation of the protection of the environment should become an integral part of the planning and putting into practice of the social and economic development of the country. The policy of protection and improvement of the environment should be directed towards establishing conditions and economic possibilities for the application of modern techniques and technologies in the elimination or reduction of the pollution and degradation of the environment. Measures should also be taken towards treating the expenses for environmental protection as an integral part of a given activity, and not as external expenses. This kind of expense should be internalised and in principle borne by the polluters.

The goal of the policy on the protection of the environment in general is the creation of conditions and methods enabling the continuous development of society and a continuous survival of life on the local, regional and global level. This goal can only be achieved through permanent up-dating and application of scientific, technical and technological developments and adequate legislative regulation in conformity with the degree of polluting and actual pollution, as well as with the economic possibilities. The current state of affairs and the economic possibilities require that a realistic transitional period enabling adjustment to the application of modern standards and solutions be provided. In other words, modern standards and solutions should be the goal to be achieved over a given period of time, parallel with the economic development of the state.

In order to define the actual state of affairs and to apply efficient policies, it is therefore necessary to undertake medium- and long-term measures.

The body of medium-term measures and activities (by the year 2002) would include:

1. Drafting laws on the restriction or prevention of pollution and degradation of the environment according to the existing sources of pollution, and laws on restriction or prevention of pollution and degradation from potential sources, i.e. from the new investment and technical construction currently under way or planned for the future.

Since the current status of pollution and degradation of the environment is mainly due to the obsolete techniques and technologies used in the process of industrial production and to motor transport vehicles, priority regulations should be passed, such as:

a) laws restricting environmental pollution to the level prescribed by the technical standards for given equipment or machinery. This can be achieved by investment of smaller amounts in equipment maintenance and by application of greater technological and work discipline in the running of the technological processes;

b) laws on the construction of new investment-technical facilities, particularly industrial ones, in conformity with international standards and norms;

c) establishing the criteria for the classification of particular localities and passing laws limiting the level of environmental pollution depending on the degree of pollution and the importance of the localities – such as natural eco-systems, economic potentials, demographic agglomerates, etc.

2. Compulsory preparation of ecological and technological studies by owners of such companies as may be sources of environmental pollution. These studies should state the quantity and the quality of pollution from these sources for each of the companies;

3. A register and a map of the sources of pollution and degradation of the environment and nature (water, air, soil, vegetation and the animal world) should be made to serve as a basis for a realistic evaluation of the current status and for the planning of a policy for the future development of environmental protection within the framework of social and economic development. Such a register will make it possible to classify the identified problems by their magnitude and by the acuteness of the need for their solution by the owners of such sources of pollution, together with financial help from the state.

4. Establishment and application of the criteria for the evaluation of the possible influence of the planned investment facilities on the quality of the environment and nature. Approval for new investment projects in new locations, or for the reconstruction of existing facilities on existing sites, will be subject to these criteria.

5. The finances necessary for the activities in the protection of the environment in the short-term period should be provided by the owners of the sources of pollution – the polluters; the state; and, possibly, from domestic and foreign donations.

6. The institutions involved in environmental protection or such as will be involved in it should be organised in a rational manner with the aim of efficiently accomplishing the objectives in the sphere of the protection of the environment. Therefore they should be equipped with adequate personnel, technical equipment and financial support. In this context, they will need financial support by the state.

7. Local public companies, together with local government authorities and with assistance from the state, should make studies and projects for the solution of the problems arising from the communal waste created by households and business companies, and from industrial waste. In this context, the following should be defined:

- the quantity of communal and industrial waste by aggregate state, mechanical and chemical composition;
- the energy and raw material potential of communal and industrial waste;

♦ possible rational and economically justified methods and technologies for the utilisation of communal and industrial waste;

♦ the conditions to be met by disposal sites and the conditions for the processing and depositing of communal and industrial waste: the depositing of processed communal and industrial waste, and the depositing of unprocessed (unused) waste in legal sanitarily and technically unequipped and in sanitary disposal sites.

8. Local government authorities and the state should pass laws and measures which will efficiently raise the level of communal hygiene, through clearly defined rights and duties of juristic and physical persons and fines for offenders. These laws and measures should cover: collection, classification and disposal of communal and industrial waste; cleaning and maintenance of streets, and care for and maintenance of urban green areas.

9. The collection, evacuation and purification of waste communal and industrial water should be intensified, particularly in the urban centres with no sewage systems. In this context there is the problem of atmospheric waters to be solved, as storm drainage systems have not been installed in the majority of urban centres.

10. In the course of this period the problems in environmental protection caused by traffic should be solved mainly through new road networks; traffic regulation; and favourable conditions for the replacement of out-dated means of transport with new ones, particularly in city and intercity public transport.

11. The air pollution created by industry in the urban centres should be reduced through the replacement of solid and liquid sources of energy (coal and crude oil) by gas, and improvement of technological and working discipline, including current and investment maintenance of the equipment and machinery at the source of pollution.

12. The laws relating to the use of land as raw material, as a medium or as a source of raw materials of mineral origin, as a physical and chemical foundation of the genesis and survival of biological resources, and as a dynamic environment and a medium for the production of food products, will be up-dated. In this context it is also necessary to establish criteria for the economic evaluation of the land in general and in particular of arable agricultural land when it is re-allotted for non-agricultural purposes. The evaluation should be based on economic and ecological criteria depending on the intrinsic value of the land in question.

The protection of land against erosion requires that companies using the land for their different purposes and the state allot more funds for a more intensive application of bio-technical and hydrotechnical measures for the protection of the soil. In this context afforestation and grassing in general, and of bare land in particular, should be intensified. Also, normative and legal regulations for rational and economical utilisation of the plant and animal world and of the biomass in general should be established.

13. Existing legislation on the application of mineral fertilisers and chemical agents for plant protection in agriculture and in forestry should be improved in the sense of a clear definition of the quality of the chemical agents, the quantities to be used depending on the needs of particular cultures, the time of their application, the quality of the products, the protection of the soil, air and water against pollution, etc.

14. It is necessary to draw up a programme for the classification of the intrinsic value of the land, particularly of arable land, which will make possible an economic evaluation of the land and its rational and economic utilisation for agricultural production, and also for other purposes.

15. A realistic policy of rational, economic and efficient utilisation, and the establishment of efficient protection of the scarce water resources in the country, in wet as well as in dry years, requires that the existing water utilisation base be revised and improved in accordance with modern methods. Once the state of affairs in this field is established, normative acts should be drafted on the future utilisation of water for various purposes and on the protection of water against pollution. In this context water should be priced realistically and in accordance with the purpose of its use, and the degree of its contamination, as in the case of communal and industrial waste water. In this way financial means will be provided both for the prevention of water pollution and for the purification of waste water (effluent) before releasing it into the watercourses, lakes, the water catchments and the soil. Successful control of water quality in the watercourses, lakes and water catchments, as well as of underground waters, can only be achieved through the introduction of a system for the constant monitoring of the situation.

III. Long-Term Measures

The body of long-term measures and activities aimed at environmental protection, in the period following the medium-term period of five years, includes:

1. The introduction and application of the principle "the pollutant pays" for the external expenses imposed on society by their activities. This means that the expenditure on environmental protection should become an integral part of companies' production costs, rather than be borne by the society. The introduction of this principle through legislative regulations will stimulate companies' interest in or economic compulsion to undertake technical and technological measures for the reduction of environmental pollution to the level prescribed by the law.

2. The medium-term, as well as the long-term, period should see more larger investments and technical activities in the protection of the environment and nature in the context of the social and economic development of the country, such as:

a) Introduction of a gasification system. With the introduction of the gasification system solid and liquid fuels will be replaced by gas, and this, in turn, will result in reduced air pollution.

b) The urban centres, particularly Skopje, should undertake more investment and technical activities aimed at solving the problems of traffic arteries and of passenger and goods transport. The possibility of re-introducing trams for passenger transport in Skopje should be reconsidered. Motor transport in Skopje as well as in other urban centres should be up-dated and modernised, and the inter-urban traffic arteries and means of transport improved.

c) Investment and technical activity, particularly in industry, should be directed towards the use of clean, economical, rational, and efficient production technologies, i.e. the kind of production to be favoured is that which absorbs less material and energy.

3. The existing industrial capacities should be completely reconstructed, i.e. obsolete equipment and technologies with inadequate ecological performance should be completely replaced by new, clean technologies.

d) The existing out-dated vehicles in the public and private transport sector should be completely replaced by new, stream-lined vehicles which will provide a more efficient operation and less environmental pollution.

e) Investment and technical activities in the water utilisation system should be directed towards the application of techniques and technologies providing rational, economical and efficient utilisation of water resources. In doing this, care should be taken of the natural priority of water utilisation and water protection against pollution. Therefore modern systems for water supply to the population, providing healthy drinking water, should be built,

as well as systems for the water supply to agriculture and industry. Water protection and saving should be given the central place and highest priority in the investment activities.

f) Investment activities in agriculture should be performed through the application of techniques and technologies not detrimental to the structure of the soil or to the quality of the products or to the bio-diversity of agricultural produce and the surrounding vegetation and animal world.

g) Forests, forest vegetation and the animal kingdom and forest land should be used in accordance with the natural conditions for an optimal development of forestry. Forest utilisation should therefore be simultaneously accompanied by investment and technical activities for the afforestation of the felled land and by systematic afforestation of bare land. As part of these activities, investment and bio-technical and hydro-technical measures for the reduction or elimination of land erosion should also be taken.

h) Investment and technical activities aimed at solving the problem of communal and industrial waste, particularly in the larger industrial centres, require increased finances. This waste should be treated as a raw material for the production of a variety of products and energy, rather than as non-usable matter.

i) The protection of the environment in the sphere of investment and technical undertakings for energy production in general and the thermal production of electricity in particular should be oriented towards the choice and use of raw materials of a higher quality of energy; maximum technological and work discipline in the operation of the technological processes and in their inspection and control; investment in the application of more modern production equipment for electricity production which will result in less pollution of the atmosphere and the environment in general. In this sense, energy production should be oriented towards the maximum use of the modest hydro-electric energy resources , and towards the use of other renewable energy sources.

In this period it is economically not possible to invest in the de-sulphurisation of the solid coal used in thermal power plants. It has been estimated that the above and other investments will reduce pollution of the environment to the optimal tolerable limits. Apart from this, it has been estimated that the capacity of the coal in the mines is very limited.

j) The protection of water against pollution in this period will require investment and technical activities for the collection and purification of waste communal and industrial water at the level of companies as well as that of the

cities and larger settlements and recreation centres. Thus, the construction of the protection systems of the lakes of Ohrid, Prespa and Dojran should be completed, i.e. the second and the third stages of the systems planned by the Project should be carried out.

k) In the urban centres where the pollution of the environment in general and air pollution in particular are more manifest, more investment and technical activities for the protection of the environment should be undertaken, such as:

– construction of a central heating system for residential and business buildings, preferably using gas. This will result in the abandonment of individual heating where neither the quality of the fuel used nor the degree of combustion or the degree of pollution can be controlled.

– in the construction of residential and business premises special attention should be paid to the quality of the thermal insulation, the choice of location and the proper orientation of the buildings with regard to the cardinal points. It has been estimated that the proper application of modern standards for the construction of residential and business premises results in the achievement of considerable savings in energy, and thus in a reduction of environmental pollution.

PART FIVE

PROJECTED TRENDS
QUANTITATIVE SCENARIOS (1997–2002)

I. Introduction – Optimistic and Pessimistic Scenario

As small and open country with low level of domestic saving, further economic development of the Republic of Macedonia depends on more factors that can be classified in two groups: external and internal factors.

The group of external factors comprises: long-term trends in world economy, the business cycle phase in high developed countries, the openness of markets in highly industrialized countries, the excess/shortage of capital in the world, long-term economic situation in developing countries and especially, secular economic tendencies in neighboring countries and in countries with which Macedonia has a most intensive economic cooperation.

The group of domestic factors consists of: the speed of structural reforms – privatization, restructuring of enterprises, banks reconstruction, fiscal reform and social system reform, and the speed of domestic saving increase.

Although there are no good long-term time series of data, and there is a distortion in the relationship between macroeconomic variables, two quantitative scenarios for basic macroeconomic variables in a period 1997 – 2002 are prepared. Depending on the assumptions for the movements of external and internal factors of economic growth, two quantitative scenarios for economic development of the Republic of Macedonia in next six years are projected. The first one is optimistic, or plus (+) scenario, based on the favorable impact of external and internal factors of growth. According to this scenario, favorable terms will exist on international market, that will have positive influence on economic growth of the Republic of Macedonia; world economy will be in high expansion, real interest rates will be relatively moderate, and the access to international markets of goods and services and international financial markets will be easy for Macedonia. Simultaneously, on domestic field, fast structural reforms and fast increase of domestic saving will be realized.

The second one is pessimistic or minus (–) scenario. This scenario comes from the assumption for unfavorable terms for economic growth, both on domestic and international field. According to this scenario, world economy expansion is not high, there are high real interest rates, access to international markets of goods and services and international financial markets is

complicated, and domestically the process of structural reforms and increase of saving have a slower pace.

These two scenarios are not extreme, but they should be understood as variation ranges within which there is highest probability for the optimal economic development scenario for the Republic of Macedonia to be realized. Primary goal of this base scenario is realization of average annual GDP growth rate in the Republic of Macedonia of 5.1% in the next six years, i.e. average annual GDP per capita growth rate of 4.3%. That would be for 1.3 percentage points lower growth in comparison with the last years growth rates in developing countries. Still, that would be an economic growth which as annual average is 2.6 percentage points higher than the growth forecast for European Union members for 1997 (2.6%)[24]. In that way, a process of closing the gap between the level of development of the Republic of Macedonia and the European Union member countries will begin.

In assessing the future optimal (potential) economic growth rate, the following assumptions were considered:

1. Initial low level of national income per capita of 1,860 US dollars[25] at the end of 1996. Having in mind the tendency of faster growth of poor countries in comparison with rich ones, due to declining capital rate of return, such a starting position should provide higher potential capacity of production and higher economic growth of the Republic of Macedonia visa vi matured market economies.
2. Structural reforms effects and overall market orientation of the country, including the privatization and enterprise restructuring, privatization and rehabilitation of banks, rise in labor market flexibility, protection of property rights, decrease in public consumption and tax burden, and the opening and integration of the country in international trade and financial flows.
3. The level of current and future national saving and foreign capital inflow.
4. The geographical position of the country and the structure of natural resources.

On the basis of these initial assumptions, it is assessed that potential (optimal) economic growth rate in 1997 would be 3.5%, and that growth in a period 2000–2002 would reach 6.0% per annum. This growth would not

[24] World Economic Outlook, October 1996, p. 2.

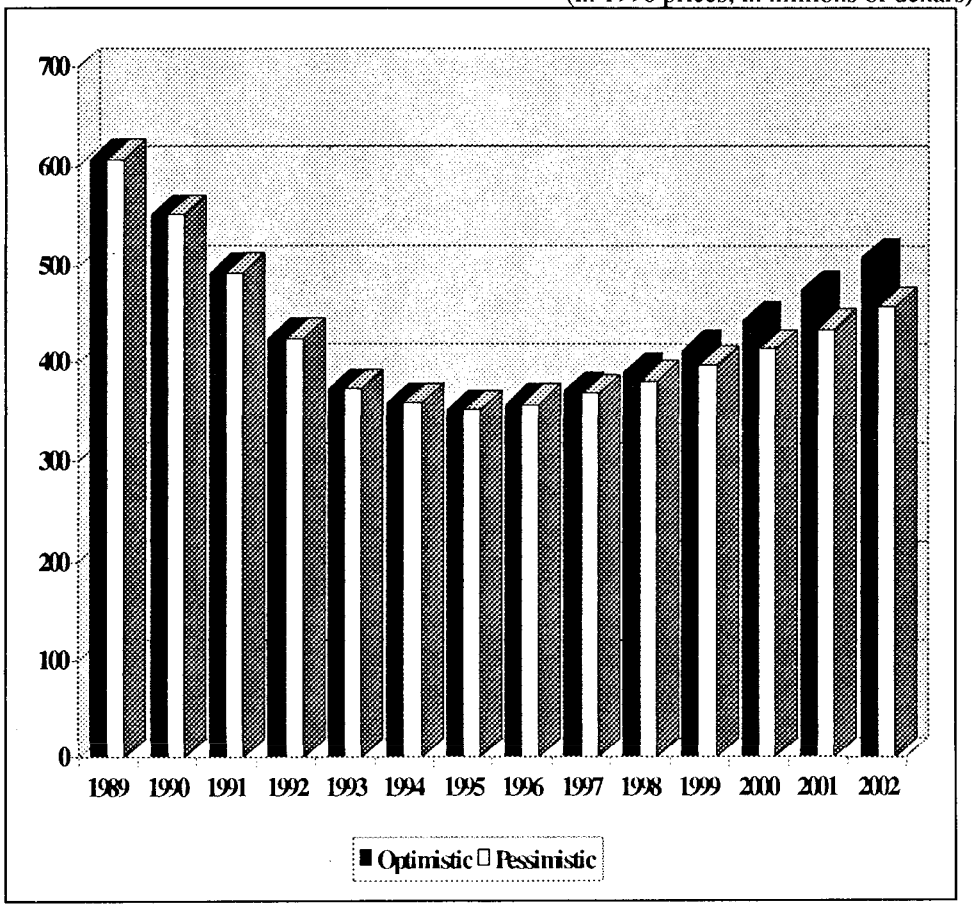
[25] Gross domestic product is converted in US dollars according to average market exchange rate of denar against dollar.

have to result in price stability distortion. The rate of inflation in 2002 (December/December) is projected at 4.7%, that would be 2.3 percentage points above the average inflation rate projected for European Union members. In comparison with transition countries, Macedonia would remain on the top of group of countries with lowest rate of inflation.[26]

Chart 4

Real GDP movement in the Republic of Macedonia in a period 1989–2002

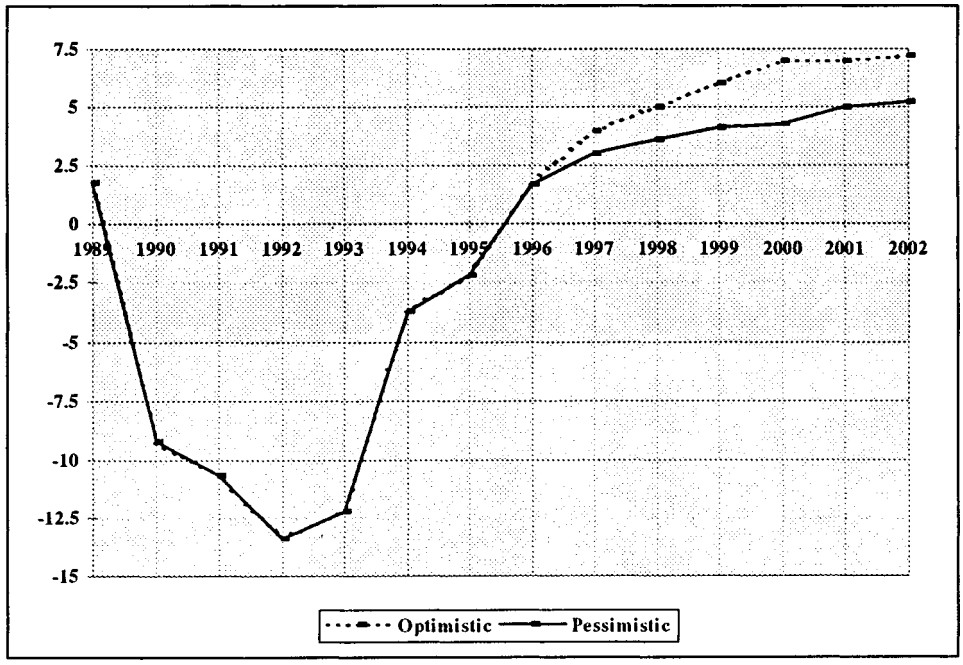
(in 1990 prices, in millions of denars)



[26] Poland intends to reach inflation rate between 5% and 7% in 2000. – Grzegorz W. Kolodko, Poland 2000, The New Economic Strategy, Poltext, Warszava 1996, p. 119; World Economic Outlook, October 1996.

Chart 5

Real GDP growth rates



Favorable international and domestic terms, according to an optimistic scenario, will lead to realization of average real growth rate of 6.0% in a period 1997–2002, that would be in average 0.4 percentage points per annum lower rate of growth in comparison with last years growth in developing countries. According to this variant, annual economic growth rate in a period 2000–2002 would reach 7.1%. At the end of 2002, real GDP would be 1.8% lower than in 1989.

Average real GDP per capita growth rate in a period 1997–2002 would be 5.2% per annum. That would lead to permanent increase in the standard of living. Thus, gross domestic product per capita in 2002 would reach US dollars 2,782, or 49.6% higher than in 1996.

High economic growth will lead to moderate acceleration of inflation in comparison to the optimal scenario. However, it will still remain on low level and under control. At the end of 2002, inflation rate is predicted to be reduced to 5.0% (December/December).

Unfavorable domestic and external terms for economic development, according to the pessimistic (–) scenario, will lead to significantly lower rate

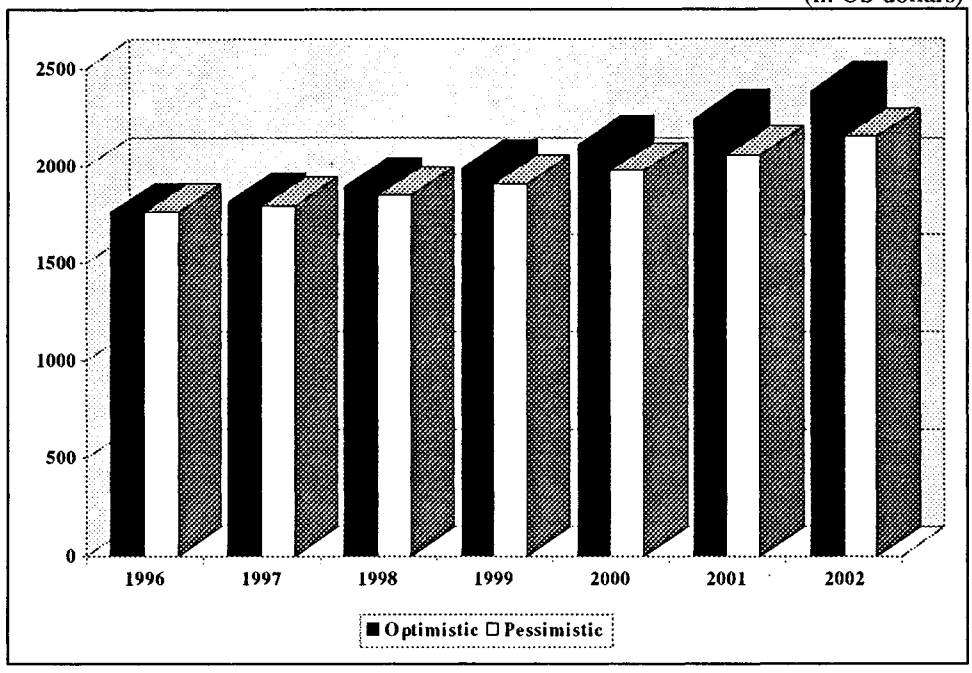
of growth in the Republic of Macedonia comparing to average developing countries rate of growth. Average annual growth rate would be 4.2%, that is still not enough for including Republic of Macedonia in a group of fast growing economies until 2002. At the end of 2002, real growth rate would reach at 5.2%.

Real GDP per capita growth rate would also be slower (3.4% annually in average), that will determine moderate rise in standards of living. At the end of 2002, GDP per capita is assessed at US dollars 2,380, or 28.0% higher than 1996 level.

Chart 6

GDP per capita

(in US dollars)



Lower growth rate would lead to higher price stability. Annual inflation rate would be between 3% and 3.5%, thus converting substantially to the average inflation rate in European Union member countries.

II. Quantification of the Factors of Economic Growth

Labor productivity growth, engagement of new labor force, better utilization of current capacities and new capital will be main generators of

growth in next six years. As a result of structural reforms and entrepreneurs spirit in a period 1997–1999 the economic growth will mainly be based on increased productivity, enhanced efficiency and increased utilization of production capacities. The influence of these factors will be determined by the indicator called social productivity of labor. This indicator is derived as a ratio of GDP and number of employees that generate that GDP, thus getting GDP per employee. As an indicator for efficiency of investments, a coefficient of capital and production is used (incremental capital output ratio – ICOR).

As a consequence of structural reforms, and especially the formation of small private enterprises[27] with high flexibility and entrepreneurs spirit, beginning with 1994 there is gradual improvement in social productivity. At the end of 1996, comparing to 1993, social productivity of labor was higher for 23.4%, in situation when there was moderate fall in output in 1994 and 1995. These movements were result of defensive restructuring of enterprises, realized in this period mainly trough reduction of employees.

In a period 1997–2002, depending on the assumptions for a speed of structural reforms, two scenarios are projected for the GDP growth on the basis of social productivity of labor increase.

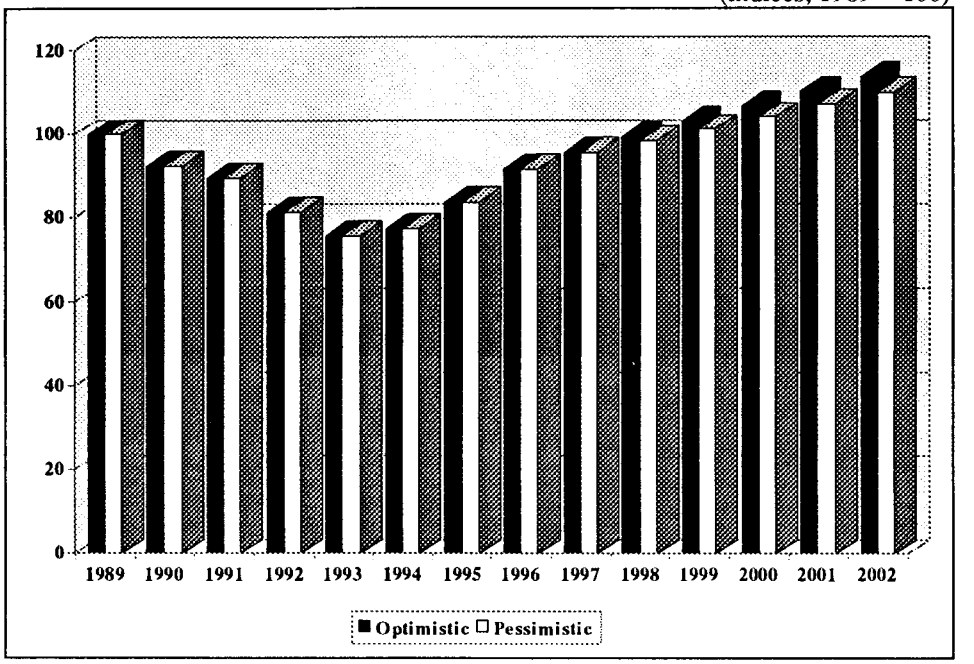
According to optimistic, plus scenario, fast structural reforms: privatization, restructuring, labor market flexibility rise, fiscal reforms and reforms of social funds, and fast integration in international markets for goods and financial flows, will create favorable conditions for dynamic growth of social productivity of labor. In a period 1997–1999, productivity growth is expected to be highest (4% per annum in average). In this period structural reforms should be finalized. After finalization of structural reforms, a decrease of the social labor productivity is expected and its reduction to 3.0% annually in 2002. According to that, in the sub period 1997–1999, generator of real GDP growth will be social labor productivity increase as consequence of comprehensive structural reforms realization. In the sub period beyond 2000, generator of growth is expected to be new engagement of the labor force as well as new capital funds (stocks) volume on basis of expected gross investments expansion. In addition, the incremental capital output ratio (ICOR) will decrease from 5.4 as is expected to be in 1997 to 4.0 in 2002.

[27] At the end of June 1996, 89,989 enterprises were registered, out of which 86,297 in private ownership. In that number, 84,989 were newly established private enterprises (self generating private sector – Uzunov). Private sector participation in GDP in 1995 was 50%, and 47% of total employees in economy are employed in private sector.

Chart 7

Social productivity of Labor

(indices, 1989 = 100)



According to the pessimistic scenario, slower pace of structural reforms realization is expected and slower integration of the Republic of Macedonia in world trade and financial flows. That will imply slower social labor productivity growth and lower real GDP increase, on that basis. In accordance with that, on basis of social labor productivity increase in sub period 1997–1999, real GDP is expected to increase by 3.4% annually, on average. The real GDP growth in 2002 on basis of social labor productivity increase is predicted to amount to 2.8%. Simultaneously, incremental capital output ratio (ICOR) will decrease from 7.1 as it is predicted to be in 1997 to 4.3 in 2002.

Second factor, which will generate real GDP growth, is new labor force engagement. In addition, both scenarios start from the assumptions that growth in first years will be based on the social labor productivity increase. At the same time, in sub period (1997–1999) relatively high investment activity will be realized which will be base for increase of the fixed funds stock, launching new technologies and creating new products. That will be a sound base for engagement of additional labor force, and its dominance as genera-

tor of economic growth compared with the social labor productivity factor in the sub period 2000–2002, and beyond.

According to optimistic, plus (+) scenario in the period 1997–2002, 49,459 new jobs will be created, where factor newly engaged labor force will generate average annual rate of real GDP growth of 2.4%. In 2002, it is projected that factor additional engaged labor force will generate real GDP growth of 4.2%.

Such pace of new jobs creation will lead to moderate reduction of unemployment. The number of unemployed persons will reach its (peak) culmination in 1998 (262,122 or 28.1% of active labor force). The number of unemployed persons by the end of 2002 will decrease by 18,391, and unemployment rate will reduce to 25.3%. More intensive unemployment decline will be realized in the first decade of the next century (2003–2010) when effects of new investments and growth of the fixed funds volume will have their complete realization.

Table 47

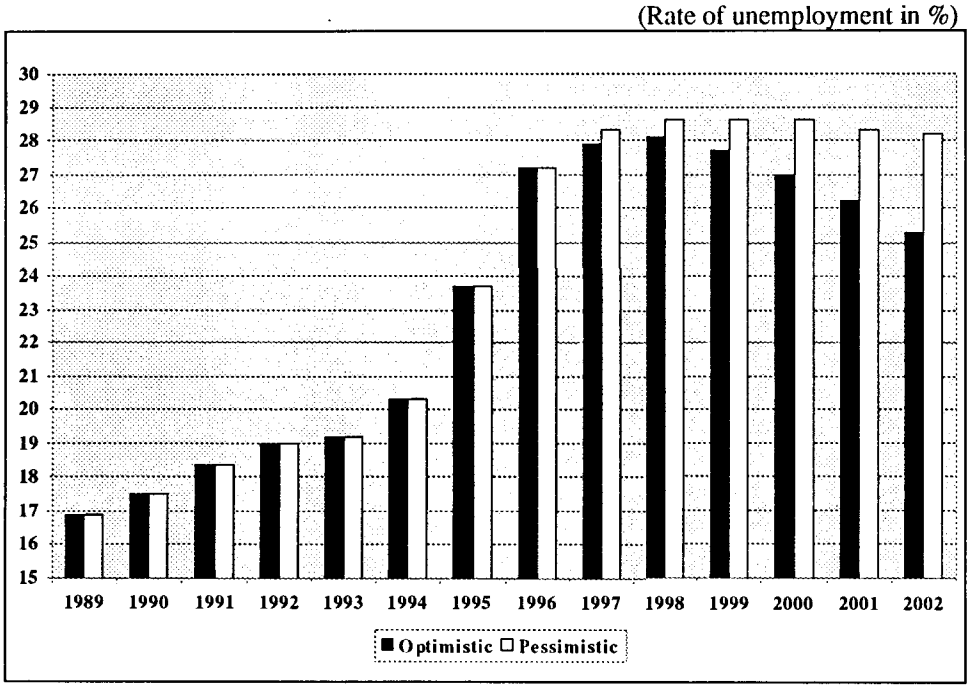
Determinants of the Economic Growth

	1996	1997	1998	1999	2000	2001	2002
Labor force – annual average	919,628	926,985	933,474	940,008	946,588	953,214	962,907
Optimistic scenario (+)							
Annual growth rate:							
– of GDP	0.8	4.0	5.0	6.0	7.0	7.0	7.2
– of labor productivity	8.2	4.5	4.0	3.6	3.6	3.3	3.0
– of employed persons	-7.4	-0.5	1.0	2.4	3.4	3.7	4.2
ICOR	11.1	5.4	4.3	4.0	3.8	4.1	4.0
Total number of employed persons	330,227	328,576	331,862	339,827	351,381	364,382	379,686
Persons seeking job	249,910	258,918	262,122	260,691	255,717	249,342	243,731
Unemployment rate	27.2	27.9	28.1	27.7	27.0	26.2	25.3
Pessimistic scenario (–)							
Annual growth rate:							
– of GDP	0.8	3.0	3.6	4.1	4.3	5.0	5.2
– of labor productivity	9.0	4.5	3.0	2.8	2.8	2.8	2.8
– of employed persons	-7.4	-1.5	0.6	1.3	1.5	2.2	2.4
ICOR	11.1	7.1	5.4	5.4	5.0	4.2	4.3
Total number of employed persons	330,227	325,274	327,226	331,480	336,452	343,854	352,106
Persons seeking job	249,910	262,221	266,758	269,038	270,646	269,870	271,311
Unemployment rate	27.2	28.3	28.6	28.6	28.6	28.3	28.2

According to that, the largest changes in output structure and products design are expected to be realized in sub period 1999–2012. Completion of these processes is expected to be finalized by 2012, when Republic of Macedonia by output structure, products development and unit labor costs will converge to those in European Union member countries.

Chart 8

Unemployment in the Republic of Macedonia



According to pessimistic, minus (–) scenario, in the period 1997–2002 is predicted that 21,879 new jobs will be created. The factor, additional engaged labor force will generate annual average rate of real GDP growth of 1.1%, where GDP growth on this basis will be in range from -1.5% in 1997 to 2.4% in 2002.

The unemployment developments will be directly connected with the pace of creating new jobs. The number of persons seeking job will reach its peak in 2000 (270,646), while the rate of unemployment its maximum will reach in the period 1998–2000 (28.6%). The unemployment rate in 2002 will be reduced to 28.2%. As in the previous scenario, according to this scenario, more intensive creation of new jobs as well as unemployment decrease would

come in the first decade of the next century. In this period faster expansion of the real GDP growth is expected on basis of additional engagement of the labor force, which would be consequence of high investments and increased stock of fixed funds. That would lead to permanent solution of the unemployment problem.

According to the neither scenarios, the supply of qualified labor force would not be a constraint for growth. It is considered that labor force supply will be sufficient not only from the quantitative but also from the qualification aspect. At the end of June 1996, 16% of the active population had bachelor degree, and 2.8% had completed post graduate studies. In addition, the biggest part of unemployed persons are highly qualified and qualified (18.7% of unemployed persons), with high, college, and secondary education (33.2% of the unemployed persons), with knowledge of one or two foreign languages, as well as qualified for working with personal computers. The eventual shortage of certain specially trained persons for some vocations would be overcome by additional training in duration of 2 to 3 months.

III. Savings – Investments

The relation between domestic savings and total investments will have notable importance in determining main economic performances in the period 1997–2002: economic growth dynamics, price stability, the character and volume of the balance of payment disequlibrium and the degree of indebtedness to abroad (net capital importer/exporter).

After relatively moderate level of domestic savings (savings rate of 13.8% of GDP) in the period 1991–1993, in the period 1994–1995 incentives for savings has decreased. Nevertheless, decreased incentives for saving did not caused gross investment decrease. On contrary, gross investment share in GDP starting from 1992 (15.5%) continuously has increased (18.6% in 1996). That determined balance of payments deficits to increase and significant import of capital for financing the investment activity. Process of revitalizing domestic savings has started in 1996, parallel with the real GDP growth. Thus, in 1996, domestic savings reached to 10.8% of GDP.

In the period 1997–2002, increase of savings and investments is predicted, with faster growth dynamics of savings than investments. In addition, growth dynamics of domestic savings will depend on: financial and price stability level; interest rate policy; level of the available income; Denar exchange rate policy; reforms in the fiscal sector; and reforms of the social funds.

Concerning the financial and price stability, as well as interest rate and exchange rate policy, both scenarios (the optimistic and the pessimistic) predict approximately same conditions through which savings and investments will be stimulated: low inflation between 3% and 5% (depending which scenario); real positive interest rates policy and stable real Denar exchange rate policy. However, the optimistic and pessimistic scenario significantly differ about the assumptions on available income developments, speed of the structural reforms and speed of lowering tax obligation, introduction of private pension and health funds, minimizing the importance of social funds and reducing the public spending.

According to the optimistic scenario, the structural and fiscal reforms will have faster pace and would create conditions for significant domestic savings increase. In 1997, the domestic savings rate will increase up to 14.2%, and in 2002 will reach 25.6% of GDP. Such domestic savings level will determine maintenance of high investment activity, gradual decrease of foreign capital import, and reduction of current account deficit in the balance of payments to 1.2% of GDP in 2002.

Chart 9

Total Investments

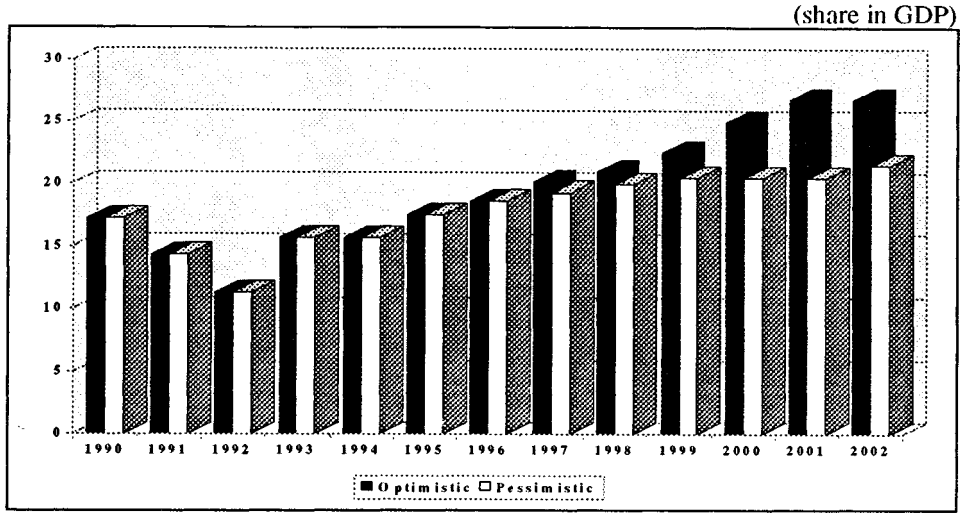


Chart 10

Domestic Savings

(share in GDP)

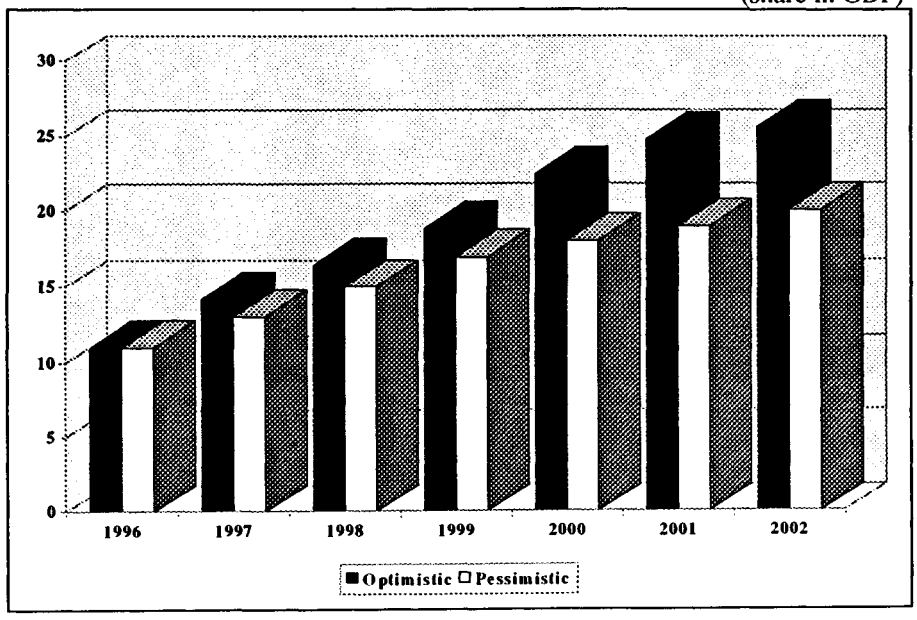
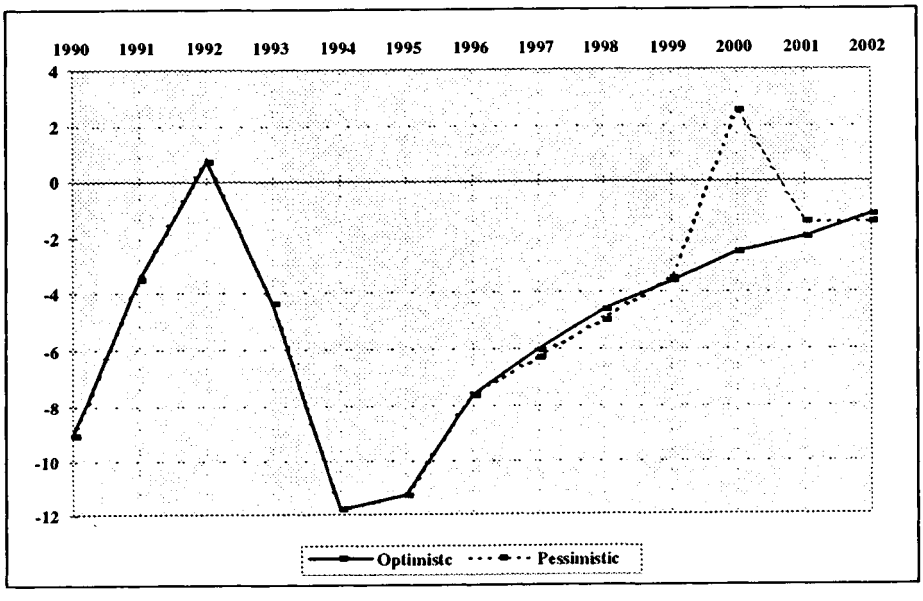


Chart 11

Domestic Savings – Total Investments Gap



According to pessimistic scenario, the structural reforms will perform slower pace in terms of lower available income, which will determine lower domestic savings level. Simultaneously, it is expected that at the international financial markets will exist unfavorable conditions for capital attraction (shortage of capital and high real interest rates). That will determine maintenance of gross investments at relatively low level due to unfavorable conditions for their financing with foreign capital inflow. In accordance with that, according to this scenario domestic savings will increase from 10.8% of GDP in 1996 to 20.0% of GDP in 2002. At the same time, gross investments will have moderate growth pace, and their share will increase from 18.6% of GDP in 1996 to 21.5% of GDP in 2002. Also in this scenario, till the end of 2002, the gap between gross investments and savings significantly will decrease, and consequently will enable outcome of the problem with current account deficit in the balance of payments.

IV. Aggregate Consumption

The macroeconomic policy measures (fiscal policy, monetary policy, exchange rate policy and income policy) in the period 1997–2002 will support the necessary growth of the aggregate consumption in order to perform economic growth at level of potential non inflationary growth. In addition, according to both scenarios, increase of the aggregate consumption mainly will be result of investment and net export increase. Private consumption growth according to both scenarios would lag behind the social labor productivity increase. With approximately same moderate pace public consumption will grow, too.

According to optimistic, plus (+) scenario, nominal aggregate consumption in the period 1997–2002 would cumulatively grow by 124.4% or by average growth rate of 14.4%. At that way, sufficient consumption will be created, which will assist economic growth without making the aggregate consumption a potential source of high inflation (demand pull inflation). According to this scenario, in succeeding six years real aggregate consumption will cumulatively increase by 41.9%, or by real average annual growth rate of 6.0%.

In addition, in the period 1997–2002, real private consumption is expected to increase by 17.1%. Average annual rate of private consumption would amount to 2.7% and would be by 1.0 percentage points lower than average dynamics of social labor productivity increase. Similar moderate real annual increase (2.6%) is predicted for current public expenditure, too.

Gross investments in fixed assets and net goods and services export will be main growth generators from the aggregate consumption side. Thus, the investments according to optimistic scenario, will increase by average annual rate of 12.6%, on real basis, while net goods and services export will increase by average annual rate of 14.7% in the period 1997–2002.

According to pessimistic, minus (–) scenario, in the period 1997–2002, nominal aggregate consumption would increase by 63.0%, or annually by 8.5%, on average. With that, on one hand, through aggregate consumption sufficient demand will be created to promote economic growth at the level of potential growth, and on the other hand, it would be a constrain for inflationary pressure developments. According to this scenario, by the end of 2002 real aggregate consumption compared with the 1996 position would increase by 27.9%, or annually by 4.2%, on average.

Table 48

Developments of the Aggregate Consumption Components

(in %, in terms of previous year)

	1997	1998	1999	2000	2001	2002
I. Optimistic scenario (+)						
1. Real growth rate of private consumption	3.5	3.0	2.6	2.6	2.3	2.0
2.Real growth rate of gross investments	12.8	9.3	13.4	18.9	14.7	7.2
3. Real growth rate of public expenditure	-2.3	-3.0	3.7	4.5	6.4	7.1
4. Real growth rate of net export of goods and services	17.7	15.8	14.1	11.9	10.6	18.3
II. Pessimistic scenario (–)						
1. Real growth rate of private consumption	3.7	2.4	2.2	2.2	2.0	2.1
2.Real growth rate of gross investments	6.9	7.3	6.8	4.3	4.8	10.4
3. Real growth rate of public expenditure	1.5	0.1	2.7	2.3	3.1	3.0
4. Real growth rate of net export of goods and services	15.4	14.9	18.7	16.7	28.5	12.9

Real private consumption, will grow by average annual rate (2.4%) which is by 0.7 percentage points below the average annual dynamics of labor productivity increase. In the period 1997–2002 cumulative increase of the real aggregate consumption is predicted to be 15.3%. Similar moderate increase is predicted for current public expenditure, too. They in 2002, in terms of 1996 position, will be higher by 13.2%, on real basis, where the real average annual growth will amount to 2.1%. Alike the optimistic scenario, in the pessimistic scenario gross investments and net goods and services export will be main generators of the aggregate consumption increase, and consequently of the economic growth. In the period 1997–2002 gross investments are expected to increase by average annual rate of 6.7%, while net goods and services export will increase by average annual rate of 17.8%, on real basis.

Gross Investments

Preserving permanent, non inflationary economic growth is not feasible without increase of the investment activity. Thus, according to both scenarios is predicted investments to be one of the leading factors of aggregate consumption increase.

The private enterprises will be main investment activity carriers. That is the sector where investments realize highest efficiency. Through modernization and revitalization, and with new technologies introduction fast production restructuring, launching new products, completing current and introducing new ecological design of products will be accomplished. That will increase the share of tradable in total goods and services. In addition, that would also lead towards gaining international competitiveness of the domestic producers.

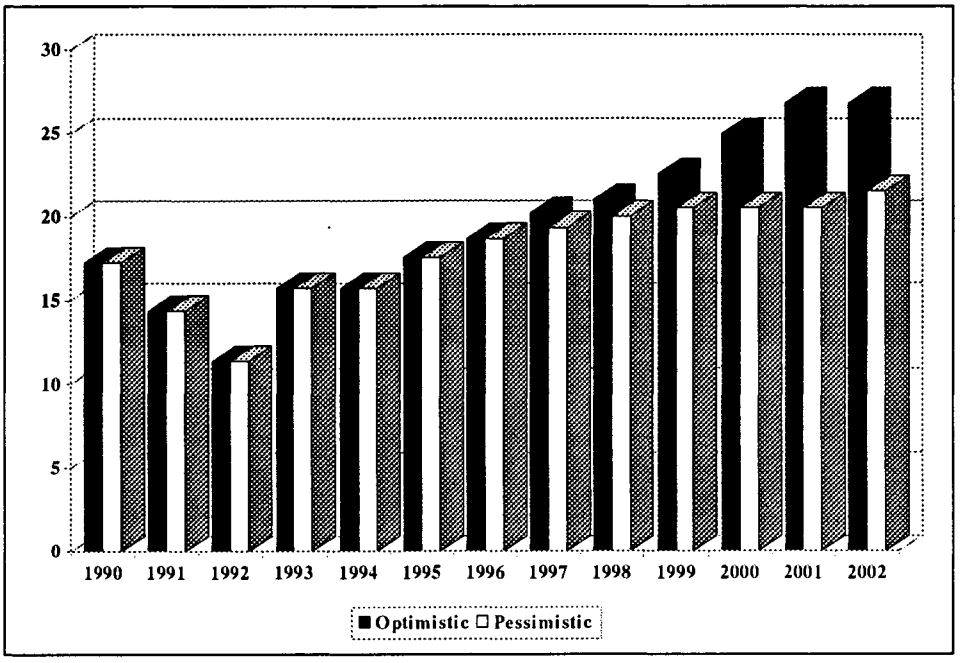
Besides investments in the private enterprises, the aggregate demand will increase through investments in infrastructure. These investments should create favorable environment for higher efficiency of the investments in the new fast growing private enterprises.

Investment growth will be supported especially with: stable interest rates; stimulation of the foreign capital inflow; domestic savings stimulation.

According to optimistic, plus (+) scenario, investments in the period 1997–2002 are estimated to grow by real average annual rate of 12.6%. With that, their share in GDP will increase from 18.6% in 1996 to 26.8% in 2002.

Chart 12

Gross Investments Share in Gross Domestic Product



According to pessimistic, minus (–) scenario, in the analyzed period, gross investments will increase by real average annual rate of 6.7%. Their share in GDP in 2002 will amount to 21.5%, which is by 2.9 percentage points higher share than the one realized in 1996.

Net goods and services export

The structural reforms and high investment activity in private enterprises is expected to result in their restructuring, output growth of tradable goods and services and gaining the competitiveness towards abroad. Persisting and gaining the price competitiveness towards abroad will be mainly based on the labor productivity increase and lowering the unit labor costs. Simultaneously, due to the fact that Republic of Macedonia in the period 1997–2002 will still remain non optimal currency zone in terms of European Union member countries, the utilization of the exchange rate as the instrument for maintenance of the price stability towards abroad will continue. Nevertheless, utilization of the Denar exchange rate for this purpose will be

limited, due to simultaneous role of main nominal anchor in the economy. All this is expected to cause fast net export growth. This aggregate consumption component is predicted to become a generator of the economic growth in the Republic of Macedonia in the period 1997–2002.

According to optimistic, plus (+) scenario, net export as aggregate consumption component in the period 1997–2002 will increase by average annual rate of 14.9%, where from US 472 million dollars net goods and services import in 1996 will reduce to US 278 million dollars in 1999, and to US 179 million dollars net goods and services import in 2002.

According to pessimistic, minus (–) scenario, net goods and services export will grow by average annual rate of 18.7% in the period 1997–2002, where net goods and services import from US 472 million dollars in 1996 will reduce to US 274 million dollars in 1999, and to net goods and services import of US 142 million dollars in 2002.

Table 49

Export demand

	1996	1997	1998	1999	2000	2001	2002
I. Optimistic scenario							
1. Net export of goods and services							
– in million US dollar	-472	-385	-324	-278	-245	-219	-179
– in million denar at current prices	-18,456	-17,363	-16,957	-15,679	-14,185	-12,680	-10,364
1.1. Net export of goods							
– in million US dollar	-317	-284	-235	-184	-140	-93	-49
– in million denar at current prices	-12,395	-12,808	-12,285	-10,378	-8106	-5,385	-2,837
1.2. Net export of services							
– in million US dollar	-155	-101	-89	-94	-105	-126	-130
– in million denar at current prices	-6,061	-4,555	-4,672	-5,302	-6,079	-7,295	-7,527
II. Pessimistic scenario							
1. Net export of goods and services							
– in million US dollar	-472	-396	-337	-274	-228	-163	-142
– in million denar at current prices	-18,456	-17,067	-15,907	-13,343	-11,147	-8,019	-6,986
1.1. Net export of goods							
– in million US dollar	-317	-281	-243	-202	-157	-106	-50
– in million denar at current prices	-12,395	-12,111	-11,470	-9,837	-7,675	-5,215	-2,460
1.2. Net export of services							
– in million US dollar	-155	-115	-94	-72	-71	-57	-92
– in million denar at current prices	-6,061	-4,956	-4,437	-3,506	-3,472	-2,804	-4,526

Public consumption

According to both scenarios, aggregate demand can be increased through public consumption. Public consumption will not represent generator for development on consumption side, but on the supply side. Namely, decrease of tax burden will increase disposable income of enterprises and people that will increase domestic saving. In the same way, domestic saving can also be increased by establishing private funds (pension and health) and decreasing the role of obligatory social insurance (health, pension, invalidity, etc.). Policy of moderate public revenues will avoid necessity for public sector borrowing. In this way, the whole domestic saving will be available for non government private and social sector (there will be no crowding out of private sector). That, in the same time, will also decrease interest rates and will enable their convergence to international interest rates.

According to the optimistic, positive (+) scenario, public revenues in the period of 1997–2002 will increase by real average annual rate of 2.6% which is by 3.4 percentage points below average annual dynamics of real GDP growth. That will lead the share of public expenditures in GDP to decrease from 42.5% as it is predicted to be in 1997, to 37.3% in 2002. Thereby, the share of social funds in GDP will decrease from 13.6% in 1997, to 10.5% in 2002, whereas the share of budget revenues will be reduced to 27.0% of GDP in 2002. With exemption of 1997, when the budget deficit is planned to be 1.2% of GDP, in all other years there should be moderate surplus, that in 2002 will be 0.2% of GDP.

According to the pessimistic, minus (–) scenario, in the period of 1997–2002, public expenditures will increase by real average annual rate 2.1%. This rate of growth will be lower by 2.1 percentage points than the average annual rate of growth of real GDP. This will lead to decrease of the public expenditures' share in GDP by 4.5 percentage points, whereby in 2002 their share will be 40.0%. Thereby, social funds' share will be reduced to 11.5% of GDP in 2002, by which in the period of 1997–2002 decrease of 3.1 percentage points will be realized. In the same time, budget revenues compared to the dynamic of real GDP growth will insignificantly leg behind. Therefore, their share in 2002 (27.5%) will be identical with that in 1997. According to this scenario in the analyzed period moderate budget deficit will be realized and will range from 2.4% of GDP in 1997 to 1.0% in 2002.

Table 50

Public revenues and expenditures

	1997	1998	1999	2000	2001	2002
I. Optimistic scenario						
(in million denar at current prices)						
1. Total revenue of public sector	68,067	77,759	89,144	99,920	112,744	124,197
1.1. Budget revenues	45,653	54,119	62,673	71,003	80,531	89,422
1.2. Funds revenues	22,414	23,640	26,472	28,917	32,212	34,775
2. Total public expenditures	70,045	77,173	86,882	96,822	109,230	123,534
Deficit - /Surplus + of public sector	-1,978	586	2,263	3,098	3,514	662
(in percentages)						
1. Total public revenues share of GDP	41.3	39.8	39.4	38.7	38.5	37.5
1.1. Budget revenues share of GDP	27.7	27.7	27.7	27.5	27.5	27.0
1.2. Funds share of GDP	13.6	12.1	11.7	11.2	11.0	10.5
2. Total public expenditures share of GDP	42.5	39.5	38.4	37.5	37.3	37.3
Public sector Deficit - /Surplus + share of GDP	-1.2	0.3	1.0	1.2	1.2	0.2
	1997	**1998**	**1999**	**2000**	**2001**	**2002**
I. Pessimistic scenario						
(in million denar at current prices)						
1. Total revenue of public sector	67,799	71,472	76,654	81,329	87,280	93,829
1.1. Budget revenues	43,633	47,770	52,299	56,524	61,427	66,161
1.2. Funds revenues	23,165	23,972	24,356	24,805	25,852	27,667
2. Total public expenditures	70,607	75,242	80,053	84,582	90,373	96,235
Deficit - /Surplus + of public sector	-3,808	-3,500	-3,398	-3,253	-3,093	-2,406
(in percentages)						
1. Total public revenues share of GDP	42.1	41.0	40.6	40.0	39.5	39.0
1.1. Budget revenues share of GDP	27.5	27.3	27.7	27.8	27.8	27.5
1.2. Funds share of GDP	14.6	13.7	12.9	12.2	11.7	11.5
2. Total public expenditures share of GDP	44.5	43.0	42.4	41.6	40.9	40.0
Public sector Deficit - /Surplus + share of GDP	-2.4	-2.0	-1.8	-1.6	-1.4	-1.0

V. Balance of Payments and Foreign Debt

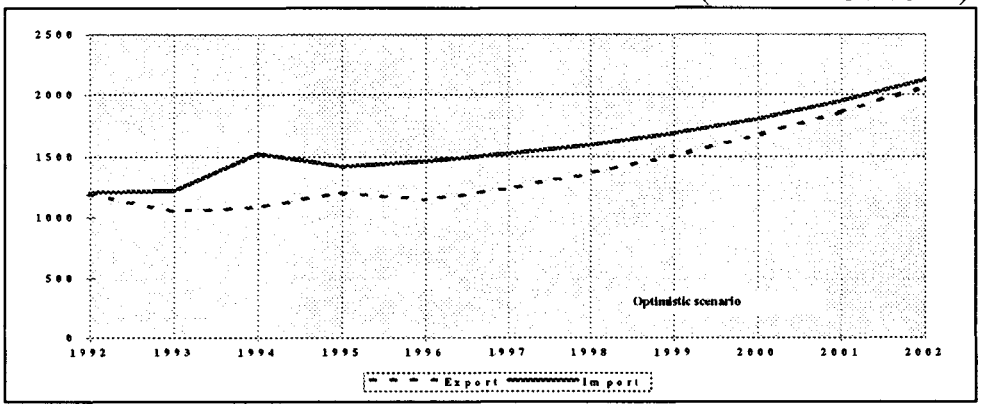
Insufficient domestic saving will determine import of foreign accumulation for financing development (gross investment). That means that in the forthcoming years Macedonia will face the existence of balance of payments deficit and increase of foreign indebtedness. However, by increasing domestic saving and efficient use of domestic and foreign accumulation, the importance of the foreign accumulation as a source for development financing will actually fall. That will determine continuing decrease of balance of payments' deficits and their transformation into surplus in the period after 2002.

According to the optimistic scenario, deficit in the current account of the balance of payments will decrease from US$ 288 million, as it was in 1996, to US$ 220 million in 1997, to US$ 101 million in 2001 and to US$ 69 million in 2002. By this the share of balance of payments' deficit in GDP will be reduced from 7.8% in 1996 to 6.0% in 1997, to 2.0% in 2001 and to 1.2% in 2002. Thus, in the sub-period of 2000–2002, current account deficit will be decreased to low, controlled level with a tendency in 2003 to become current account surplus. Accordingly, in the period of 1997–2002 overall the problem of balance of payments crises will be solved.

Chart 13

Export and import of goods

(in million US dollar)



Within the balance of payments current account the deficit in the trade balance is projected to decrease from US$ 317 million in 1996 to US$ 49 million in 2002. Thereby, import of goods will increase from US$ 1.239 million in 1997 to US$ 2,076 million in 2002, or on average annually at rate of 10.4%, that is by 4.6 percentage points higher growth dynamic compared to the projected average growth rate of real GDP according to this scenario. Import of goods will increase from US$ 1,523 million in 1997 to US$ 2,125 million in 2002, where the average annual growth rate of import in the period of 1997–2002 will be 7.4%, which is by 3.0 percentage points lower growth rate compared to average growth rate of export.

Deficit in the balance of net services will realize total decrease of US$ 25 million. From US$ 155 million deficit in 1996, there will be a deficit of US$ 89 million in 1998 and negative balance of US$ 130 million in 2002. Projections of such movements of net services are based on available trans-

portation, construction and tourism capacities, their competitiveness and quality of the services, as well as on the location of the Republic of Macedonia.

Balance of net income and current transfers will see dynamic changes. Based on increased confidence in the financial system, it is expected increase of current transfers based on remittances from Macedonians employed abroad. In the same time, it is expected the income outflow to be diminished based on payment of interest and dividends to abroad, and to diminish inflow based on official transfers. Accordingly, it is estimated that the balance of net transfers and income from US$ 183 million surplus in 1996 will decrease into surplus of US$ 110 million in 2002.

Table 51

International exchange

(in million US dollar)

	1996	1997	1998	1999	2000	2001	2002
Optimistic scenario							
1. Trade balance and balance of services	-468	-385	-324	-278	-245	-219	-179
1.1. Trade balance	-317	-284	-235	-184	-140	-93	-49
1.1.1. Export of goods	1,147	1,239	1,361	1,504	1,670	1,862	2,076
1.1.2. Import of goods	1,464	1,523	1,596	1,688	1,810	1,955	2,125
1.2. Net services	-155	-101	-89	-94	-105	-126	-130
2. Net current transfers and income	183	165	151	133	129	117	110
3. Balance of payments current account balance	-288	-220	-173	-145	-116	-102	-69
Balance of payments current account balance share of GDP (in %)	-7.8	-6.0	-4.6	-3.6	-2.6	-2.0	-1.2
Foreign debt position	1,172	1,392	1,564	1,709	1,825	1,927	1,996
Foreign debt share of GDP (in percentages)	31.8	37.9	41.8	42.4	40.8	37.9	34.8
Pessimistic scenario							
1. Trade balance and balance of services	-468	-396	-337	-274	-228	-163	-142
1.1. Trade balance	-317	-281	-243	-202	-157	-106	-50
1.1.1. Export of goods	1,147	1,212	1,289	1,378	1,475	1,591	1,718
1.1.2. Import of goods	1,464	1,493	1,532	1,580	1,632	1,697	1,768
1.2. Net services	-155	-115	-94	-72	-71	-57	-92
2. Net current transfers and income	183	163	151	138	123	95	68
3. Balance of payments current account balance	-288	-233	-186	-136	-105	-68	-74
Balance of payments current account balance share of GDP (in %)	-7.8	-6.3	-5.0	-3.5	-2.5	-1.5	-1.5
Foreign debt position	1,172	1,405	1,591	1,727	1,831	1,937	1,987
Foreign debt share of GDP (in percentages)	31.8	38.0	42.7	44.3	44.1	42.9	40.4

Under an assumption that interest on current debt is paid regularly and that there will be no inflow on capital from direct investment, than the external debt of the country in the period of 1997–2002 will increase by US$ 824 million and at the end of 2002 will reach the amount of US$ 1,996 million. By this, country indebtedness as debt to GDP ratio in 2002 will be 0.348, that will be lower compared to the 1997 ratio (0.379).

However, if we start with the assumption that in the period of 1997–2002 in Macedonia based on direct investment there will be capital inflow of US$ 570 million (US$ 70 million on average annually in the sub-period of 1997–1999 and US$ 90 million on average annually in the sub-period of 2000–2002) than the foreign debt of Macedonia at the end of 2002 will be US$ 1,426 million with indebtedness coefficient of 0.248.

According to the pessimistic, minus (–) scenario, current account deficit in the period of 1997–2002 will decrease by US$ 214 million. In 2002 it is estimated that current account deficit will be US$ 74 million, that will present 1.5% of GDP. Starting 2003 there will be current account surplus by which the process of debt repayment will begin.

Within the balance of payments current account, the trade balance deficit is planned to decrease from US$ 317 million in 1996, to US$ 202 million in 1999 and to US$ 50 million in 2002. Export of goods will increase by US$ 571 million and in 2002 will reach US$ 1,718 million. Average annual growth rate of export will be 7.0% and will b by 2.8 percentage points higher than the projected average rate of real economic growth according to this scenario. Import of goods is estimated to increase in the period of 1997–2002 by US$ 304 million. Average annual growth rate of import of goods will be 3.2% and will be by 3.8 percentage points lower than the projected average growth rate of export of goods.

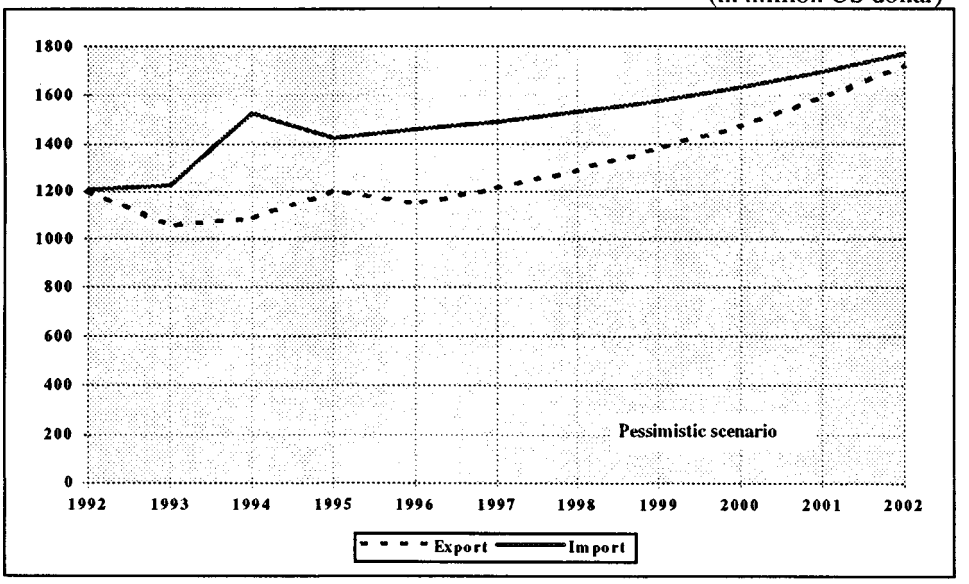
Utilization of the geographic location of Macedonia, free transportation, construction and tourist capacities it is estimated that will lead to drastic changes in the balance of services. From US$ 155 million deficit in 1996, balance of services deficit will be reduced to US$ 92 million in 2002.

Movements in the balance of net income and current transfers will be pre-determined by net payments of interest and dividends abroad and remittances from Macedonian workers abroad, as well as from official transfers. Having in consideration the effects from these two positions it is estimated that the balance of net current transfers and income from a surplus of US$ 68 million in 2002.

Chart 14

Export and import of goods

(in million US dollar)



Foreign debt of the country in the period of 1997–2002 will increase by US$ 815 million under an assumption interest of the current debt to be paid regularly and the capital inflow in the country from direct investment not to be realized at all. According to that, total external debt at the end of 2002 will amount US$ 1,987 million which will present 40.4% compared to GDP. Thereby, the percentage of the total debt of GDP would be 8.6 percentage points higher than the one realized in 1996.

However, if we start with the assumption that in the period of 1997–2002 based on direct investment in Macedonia there should be capital inflow of US$ 315 million (US$ 35 million on average annually for the sub-period of 1997–1999 and US$ 70 million for the sub-period of 2000–2002) than the Macedonian foreign debt at the end of 2002 will be US$ 1,672 million which is by US$ 500 million more than total debt at the end of 1996. Accordingly, share of total foreign debt in GDP at the end of 2002 will be 34.0%.

APPENDIX

STATISTICAL TABLES

AVERAGE GROWTH RATES OF THE SOCIAL PRODUCT

Period	Total %	Per capita %
1948–1950	5.5	4.1
1951–1955	6.7	4.7
1956–1960	5.9	5.5
1961–1965	8.4	6.6
1966–1970	7.5	5.7
1971–1975	6.1	4.6
1976–1980	5.5	4.0
1981–1985	0.6	-0.8
1986–1990	-1.2	-2.3
1991–1995	-8.6	-9.5
1991–1996*	-4.5	-5.2

* Data refer to Gross Domestic Product.

GLOBAL STRUCTURE OF THE PUBLIC REVENUES

(in denars, as % of GDP and of total public revenues)

	1995			1996			1997 Projection		
	Final Balance, in nominal terms	Share in total public revenues	Share in GDP	Final Balance, in nominal terms	Share in total public revenues	Share in GDP	Final Balance, in nominal terms	Share in total public revenues	Share in GDP
Central Government	41,245,589,000	64.16	28.72	40,085,811,000	63.37	27.16	41,320,000,000	62.03	26.49
Local Government	659,276,000	1.03	0.45	788,880,000	1.25	0.53	786,565,000	1.18	0.50
Pension and Inability Fund	14,906,052,000	23.19	10.38	14,502,294,000	22.93	9.82	15,900,000,000	23.87	10.19
Health Fund	5,834,976,000	9.08	4.06	6,087,112,000	9.62	4.12	6,617,000,000	9.93	4.24
Employment Fund	957,954,000	1.49	0.67	921,745,000	1.46	0.62	1,010,000,000	1.52	0.65
Road Fund	684,701,000	1.07	0.47	868,954,000	1.37	0.58	980,000,000	1.47	0.63
Total Public Revenues	**64,288,548,000**	**100.00**	**44.77**	**63,254,796,000**	**100.00**	**42.86**	**66,613,565,000**	**100.00**	**42.70**
GDP	**143,597,334,000**			**147,554,117,000**			**156,000,000,000**		
Share of Total Public Revenues in GDP	**44.77**			**42.86**			**42.70**		

Source: Ministry of Finance of the Republic of Macedonia.

GLOBAL STRUCTURE OF THE PUBLIC EXPENDITURES

(in denars, as % of GDP and of total public expenditures)

	1995			1996			1997 Projection		
	Final Balance, in nominal terms	Share in total public expenditures	Share in GDP	Final Balance, in nominal terms	Share in total public expenditures	Share in GDP	Final Balance, in nominal terms	Share in total public expenditures	Share in GDP
Central Government	43,726,314,083	63.5%	30.5%	42,723,195,285	63.8%	29.0%	44,454,000,000	63.8%	28.5%
Local Government	599,028,478	0.9%	0.4%	784,904,283	1.2%	0.5%	768,565,000	1.1%	0.5%
Pension and Disability Fund	15,190,878,369	22.0%	10.6%	15,100,578,079	22.6%	10.2%	15,900,000,000	22.8%	10.2%
Health Fund	6,882,509,000	10.0%	4.8%	6,462,416,000	9.7%	4.4%	6,617,000,000	9.5%	4.2%
Employment Fund	957,954,232	1.4%	0.7%	921,745,000	1.4%	0.6%	1,010,000,000	1.4%	0.6%
Road Fund	1,545,456,559	2.2%	1.1%	934,259,924	1.4%	0.6%	980,000,000	1.4%	0.6%
Total Public Expenditures	**68,902,140,721**	**100%**	**47.9%**	**66,927,098,571**	**100%**	**45.4%**	**69,729,565,000**	**100%**	**44.7%**
GDP	**143,597,334,000**			**147,554,117,000**			**156,000,000,000**		
Share of Total Public Expenditures in GDP	**47.9%**			**45.4%**			**44.7%**		

Source: Ministry of Finance of the Republic of Macedonia.

BALANCE OF PAYMENTS 1992–1996

(in million USD)

	1992	1993	1994	1995	1996
I. Current account balance	-91	15	-161	-221	-288
Exports of goods, f.o.b.	1,199	1,055	1,086	1,205	1,147
Imports of goods, f.o.b.	1,206	1,012	1,271	1,425	1,464
Trade balance	-7	43	-185	-220	-317
Services: inflow	61	84	172	185	154
Services: outflow	103	238	327	385	309
Balance of services	-42	-154	-155	-200	-155
Income, net	-72	-57	-47	-29	-30
Official transfers	-	28	44	27	52
Private transfers	30	155	182	201	161
Transfers, net	30	183	226	228	213
II. Financial and capital transactions, net	-162	-112	56	214	270
Capital transfers, net	-	-	30	2	-
Direct investments	-	-	24	9	11
Portfolio investments	-	-	-	3	-
Other investment, net	-101	-53	43	301	250
Trade credits, net	15	-82	98	142	79
Loans, net	-35	-90	-97	29	42
Of w: repayment of arrears	-	-	-107	-259	-32
F. Currency and deposits, net	-64	-17	-70	23	61
Other, net	-17	136	111	107	69
Change in international reserves (minus is increase)	-61	-59	-41	-101	8
III. Errors and omissions	71	97	105	7	19

Source: National Bank of the Republic of Macedonia.

EXPORT AND IMPORT STRUCTURE BY INTENDED USE OF PRODUCTS

(in %)

	Export						
	1990	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**
Production materials	59.0	58.0	43.4	47.4	50.0	54.2	51.5
Capital goods	4.7	6.2	3.2	6.9	5.1	4.2	2.9
Consumer goods	36.3	35.8	50.8	40.4	40.6	37.0	45.6
	Import						
	1990	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**
Production materials	68.6	70.0	68.6	62.4	54.7	57.6	60.8
Capital goods	6.4	9.5	7.0	11.0	13.1	10.7	11.0
Consumer goods	25.0	20.5	23.7	25.8	31.6	37.7	27.4

Note: The difference up to 100% is unspecified goods.

EXPORT AND IMPORT STRUCTURE BY DEGREE OF PROCESSING

(in %)

	Export						
	1990	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**
Unfinished goods	5.0	10.0	12.1	10.4	9.6	11.5	10.2
Products with normal degree of finalization	43.1	42.1	30.6	31.3	35.0	35.1	36.2
Products with high degree of finalization	51.9	47.9	54.7	53.0	51.6	48.7	50.6
	Import						
	1990	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**
Unfinished goods	24.6	21.1	15.6	19.6	9.1	9.3	9.5
Products with normal degree of finalization	18.6	22.5	24.9	24.4	28.3	28.4	29.0
Products with high degree of finalization	56.8	56.4	58.8	55.1	61.0	61.3	61.0

Note: The difference up to 100% is unspecified goods.

REGIONAL DISPERSION OF EXPORT AND IMPORT

(in %)

	Export			Import		
	1994	**1995**	**1996**	**1994**	**1995**	**1996**
Developed industrial countries	42.7	43.4	53.7	51.4	49.8	49.6
– European Union	30.5	33.7	42.7	37.8	40.2	38.7
– EFTA	5.6	3.1	2.9	4.5	1.2	1.6
– Other developed countries	6.6	6.6	8.1	9.1	8.4	9.3
East European countries	40.6	37.0	11.8	25.0	25.4	21.1
Developing countries	4.0	3.7	1.3	5.2	5.4	6.3
Former SFRY countries	12.7	15.0	33.1	18.4	19.5	21.0
T o t a l:	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

REPUBLIC OF MACEDONIA MAIN TRADING PARTNERS

(in %)

	Export			Import		
	1994	**1995**	**1996**	**1994**	**1995**	**1996**
Bulgaria	22.1	21.2	3.3	15.7	14.9	6.6
Italy	11.6	9.8	4.5	11.3	10.4	6.8
Germany	13.4	12.7	18.7	16.8	16.5	14.7
Russian Federation	7.0	7.2	3.4	2.7	3.6	7.5
USA	3.6	2.5	6.2	3.5	3.6	4.2
Turkey	3.3	3.2	1.6	3.3	3.2	2.7
SR Yugoslavia	–	7.0	21.4	–	9.4	10.2
Slovenia	6.6	6.0	7.2	10.9	6.8	7.6
Croatia	2.8	2.6	3.0	4.0	3.3	3.0
Greece	1.2	1.2	8.9	2.9	2.6	4.8
T o t a l:	**72.2**	**74.7**	**78.2**	**71.1**	**74.3**	**68.1**

URBAN AND RURAL POPULATION IN THE REPUBLIC OF MACEDONIA

	1953	1971	1994
	Number of inhabitants		
Total	1,304,514	1,647,308	1,935,034
Urban	408,229	803,079	1,156,297
Rural	896,285	844,229	778,737
	Structure in percent		
Total	100.0	100.0	100.0
Urban	31.3	48.8	59.8
Rural	68.7	51.2	40.2

For comparability, the number of inhabitants in 1994 is presented in accordance with the methodology applied in previous censuses.

INCREASE OF THE MACEDONIAN POPULATION 1948–1994 [1]

	1948–1953	**1953–1961**	**1961–1971**	**1971–1981**	**1953–1971**	**1981–1994**
Total	151,528	101,489	241,305	261,828	342,794	27,741
– in towns	77,831	134,704	260,146	250,023	394,850	94,019
– Skopje	36,607	58,130	115,639	95,163	173,769	32,434
– 10-towns[2]	31,575	62,062	102,225	105,627	151,343	31,831
– 18-towns[3]	9,650	14,512	42,282	49,233	69,738	29,754
– in villages	73,634	-33,215	-18,841	11,805	-5,056	-5,098

[1] The increase in the period 1981–1994 is calculated according to the old methodology.

[2] In 10 towns which in 1971 had above 20,000 citizens, excluding Skopje.

[3] In 18 towns which in 1971 had below 20,000 citizens.

PROJECTION OF THE EMPLOYMENT BY QUALIFICATION AND EDUCATION, AND UNEPLOYMENT IN THE PERIOD 1999–2019

	1999						2009						2019					
	Variant						Variant						Variant					
	I		II		III		I		II		III		I		II		III	
1. Employed in 000	439	100	439	100	439	100	573	100	573	100	573	100	680.3	100	680	100	680	100
1.1. Unqualified, semi-qualified and with primary education	50.6	11.5	30.7	7	13.2	3	28.7	5	17.2	3	28.7	3	10	1.5	–	–	–	–
1.2 Qualified and high-qualified	103.2	23.5	136.1	31	241.5	55	117.5	20.5	143.3	25	229.2	40	116	17	146	21.5	143	27
1.3. Secondary education	153.7	35	153.7	35	131.7	30	212	37	200.6	35	171.9	30	204	30	272	40	340	50
1.4. High education	125.1	29.3	109.8	25	43.9	10	200.6	36.4	194.8	34	137.5	24	323	49.8	238	35	170	25
1.5. Masters of arts, specialists and Ph.D.	3.6	0.7	8.8	2	8.8	2	6.5	1.1	17.2	3	17.2	3	12	1.7	24	3.5	27	4
2. Unemployed – in 000	236		236		236		202.6		202.6		202.6		159		159		159	

Projected three variants are based on expected and projected dynamics and structure of the economic development, as well as on the expected or needed qualification and educational structure of the employees. The first variant is based on current situation, dynamics and structure of the employees, i.e. upon the analytical extrapolation of the working force. The second one is based on the Auerhan model and our assessment of the technological progress, and educational structure of the employees. The third one is calculated on the basis of the long-term plan for economic development of the Republic of Macedonia for the period 1985–2000, and our assessment of possible future movements for the period up to 2019. The assessments do not intend to be too precise, but is of great significance.

STRUCTURE OF INVESTMENTS IN FIXED ASSETS

	1992	1993	1994	1995	1996
Total Investment	**100**	**100**	**100**	**100**	**100**
Economic investments	**77.5**	**92.1**	**96.5**	**96.7**	**96.9**
– Industry and mining	16.2	9.8	30.0	32.7	33.3
– Water supply	1.0	2.5	8.4	6.6	5.5
– Transport	31.0	30.5	42.5	39.5	40.0
– Trade	4.1	37.4	11.5	11.7	11.2
– Other	25.2	11.9	4.1	6.2	6.9
Non economic activities	**22.5**	**7.9**	**3.5**	**3.3**	**3.1**
– Education and culture	8.0	2.1	1.1	1.2	1.0
– Healthcare and social protection	5.8	2.8	1.8	1.8	1.8
– Government and others	8.7	3.0	0.6	0.3	0.3

Source: Republic Bureau of Statistics and Payment Buerau.

RATES OF INVESTMENT

(as % of GDP)

	1992	1993	1994	1995	1996
Total	**15.5**	**16.0**	**18.6**	**18.0**	**18.6**
– Investment in fixed assets	19.4	16.7	14.4	17.2	17.9
– Change in stocks	-3.9	-0.7	4.2	0.8*	0.7*

Source: Republic Bureau of Statistics and Payment Bureau.

* Projections made by the authors.

DEGREE OF FIXED ASSETS AMORTIZATION IN THE MACEDONIAN ECONOMY

(in %)

	1993	1994
Total economy	**51.6**	**52.8**
Economy, excluding infrastructure	52.6	53.5
– Industry	59.2	60.6
– Agriculture	43.7	40.5
– Forestry	50.7	41.2
– Construction	46.7	47.2
– Transport	62.5	62.9
– Trade	35.0	35.7
– Catering and tourism	38.2	38.3
– Crafts	37.8	40.7
– Communal activities	42.1	46.2
– Other	46.1	42.2
Economic infrastructure	49.5	51.3
– Production, supply and distribution of electric energy	48.3	51.0
– Water supply	22.3	24.5
– Railway transport	70.9	72.1
– Air transport	16.2	17.1
– Telecommunication services	42.4	41.9

Source: Author's calculation based on the Republican bureau of Statistics data.

FOREIGN INVESTMENT IN THE REPUBLIC OF MACEDONIA

(in million USD)

	1991	1992	1993	1994	1995	1996
A. Amount						
Total	**11.9**	**2.2**	**0.8**	**19.1**	**8.3**	**7.2**
EU	8.4	1.8	0.7	16.2	5.9	6.2
EFTA	1.4	0.1	0.0	1.4	0.1	0.2
Other developed countries	1.4	0.3	0.1	0.5	1.8	0.4
Developing countries	0.7	0.0	0.0	0.5	0.4	0.3
Former SFRY countries	–	–	–	0.5	0.1	0.1
B. Number of projects						
Total	**102**	**28**	**17**	**578**	**121**	**155**
EU	47	16	8	278	86	112
EFTA	41	6	3	51	2	5
Other developed countries	8	3	4	54	15	17
Developing countries	6	3	2	139	14	14
Former SFRY countries	–	–	–	56	4	7

Source: Republic Bureau of Statistics.

INVESTMENT FINANCING

(in %, current prices)

	1992	1993	1994	1995	1996[1]
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Domestic funds	**99.1**	**90.6**	**84.3**	**80.3**	**81.7**
– Investors own funds	53.6	49.6	46.2	45.5	49.6
– Domestic credits	3.7	0.8	4.3	2.9	2.4
– Funds provided by law	14.2	25.1	1.5	0.5	0.5
– Budget and funds	4.8	3.3	23.7	22.3	20.8
– Local selffinancing	17.3	4.3	7.2	7.4	6.9
– Other	5.5	7.5	1.4	1.7	1.5
Foreign funds	0.9	9.4	15.7	19.7	18.3
– Foreign banks	0.6	9.2	5.2	11.0	10.2
– Foreign partners	0.3	0.2	10.5	8.7	8.1

[1] Position on March 31, 1996.

Source: Payment Bureau, with some data adjustments made by authors.

GROWTH RATES OF SOCIAL PRODUCT IN INDUSTRY, BY BRANCHES

(in %)

	1991–1995	1996–2000	2001–2010	2006–2020
Total industry	**-12.9**	**2.0**	**6.0**	**8.0**
– Energy	-7.0	2.0	4.0	5.5
– Basic metals	-19.6	1.5	5.0	5.5
– Nonmetals and construction materials	-12.7	2.5	6.0	9.0
– Equipment and durable goods	-21.0	3.0	9.0	12.0
– Chemicals	-14.1	2.0	7.5	8.5
– Lumber industry	-18.9	2.0	5.0	5.5
– Textile and leather	-20.9	1.0	5.0	7.0
– Food and beverages industry	-4.4	1.2	6.5	7.0
– Other	-15.1	1.5	1.5	8.5

SOCIAL PRODUCT IN INDUSTRY, BY BRANCHES*

(in billion denars, 1995 prices)

	1990	1995	2000	2010	2020
Total industry	**101.4**	**48.5**	**53.5**	**94.6**	**205.0**
– Energy	12.2	8.5	9.3	13.8	24.0
– Basic metals	11.6	3.9	4.2	6.8	11.6
– Nonmetals and construction materials	8.1	4.1	4.6	8.2	19.4
– Equipment and durable goods	16.0	5.2	6.0	14.2	44.0
– Chemicals	9.0	4.2	4.6	9.5	21.5
– Lumber industry	3.7	1.3	1.4	2.3	4.0
– Textile and leather	21.4	6.7	7.0	11.3	22.2
– Food and beverages industry	16.9	13.5	14.7	27.2	54.1
– Other	2.5	1.1	1.7	1.3	4.2

* Calculation for 1990 is based on statistical data for social product by current prices, and deflator in period 1991–1995; for 1995 – estimation, and for 2000, 2005 and 2020 – projection based on macroeconomic models using small range of variables. In the macroeconomic model, besides the social product, data for export, investment and employment in industry is used. This model has indicative character, and it will be adjusted within the project.

COMPARATIVE DATA ON INDUSTRY DEVELOPMENT

	1990	1995	2000	2010	2020
1. Absolute values					
Social product (in billion denars, 1995 prices)	101.4	48.5	53.0	95.0	205.0
Export excluding processing (in million denars, 1995 prices)	658	701	812	1,597	3,590
Export (in billion denars, 1995 prices, 1USD = 40 denars)	26.3	28.9	32.5	60.1	143.6
Investment (in billion denars, 1995 prices)	6.0	4.6	6.9	14.9	35.3
Employment (in 000)	206	137	147.5	179.5	430.0
2. Share in GSP (in %):					
– Export	26.0	57.8	61.3	63.3	70.0
– Investment	6.0	9.0	13.0	15.7	17.2

	1991–1995	1996–2000	2001–2010	2011–2020
3. Real rates of growth				
Social product	-12.9	2.0	6.0	8.0
Export	1.2	3.0	7.0	9.0
Investment	-5.1	8.5	8.0	9.0
Employment	-8.0	1.5	4.0	6.0

EXPORT AND IMPORT OF MAIN AGRICULTURAL PRODUCTS

Groups	Structure in %					
	1990	**1991**	**1992**	**1993**	**1994**	**1995**
EXPORT						
Agriculture and fishing	20.3	15.8	12.2	9.1	17.0	15.9
Food products	28.5	29.4	27.4	29.5	35.1	40.4
Beverages	11.9	5.9	6.5	9.3	4.4	5.5
Livestock feed	–	–	0.1	0.4	0.2	0.1
Tobacco production and processing	39.3	48.9	53.7	51.7	43.3	38.1
Total	100	100	100	100	100	100
Value (in 000 USD)	68,114	143,384	122,654	108,072	90,796	104,500
Indices	100	210	180	159	133	153
Share in total trade	6.1	13.0	10.2	10.2	8.3	8.4
IMPORT						
Agriculture and fishing	45.1	48.1	31.7	8.9	11.0	13.7
Food products	36.3	28.1	18.2	3.3	32.0	34.4
Beverages	11.0	6.9	7.2	16.3	21.0	25.3
Livestock feed	0.6	0.9	0.9	1.5	4.4	3.4
Tobacco production and processing	14.0	15.3	42.0	70.0	31.4	23.0
Total	100	100	100	100	100	100
Value (in 000 USD)	265,670	211,378	89,664	84,614	128,247	151,800
Indices	100	80	34	32	48	57
Share in total trade	17.3	16.8	7.4	7.0	9.5	8.8
Coverage of imports with exports	25.6	67.8	136.8	127.7	70.8	68.8

EXPORT AND IMPORT OF MAIN AGRICULTURAL PRODUCTS

(in tons)

Products	1990	1993	1994	1995
Export				
Beef	4,501	–	1,745	–
Lamb	1,130	1,166	1,760	1,810
Apples	175	33,274	26,607	25,736
Grape	1,137	10,119	12,773	10,158
Plums	–	45	30	101
Peaches	–	141	130	22
Pears	11	284	241	134
Tomatoes	10	17,921	12,961	18,103
Tobacco (unprocessed)	5,080	12,986	10,424	12,065
Wine	19,531	45,967	44,760	69,372
Import				
Beef	2,626	7	12	18
Milk	2,755	229	12,700	19,698
White cottage cheese	6,357	6,544	5,682	2,161
Tomatoes	–	345	636	1,159
Wine	1,096	5,389	52	25
Tobacco	–	8,462	6,533	5,807
Wheat	–	80,600	146,100	92,600

STRUCTURE OF THE INDIVIDUAL AGRICULTURAL ECONOMIES

Groups (ha)	1939	1960	1969	1980	1994
Up to 2	41	43	58	68	–
2–5	34	34	29	24	–
5–10	17	18	11	7	–
Over 10	8	5	2	1	–
Average ha	**4.49**	**3.14**	**2.56**	**2.04**	**1.29**

WEALTH STRUCTURE OF THE AGRICULTURAL ENTERPRISES

Group (ha)	1975		1992		1993		1994		1995	
	No.	%	No.	%	No.	%	No.	%	No.	%
Under 50	76	40.0	42	25.8	40	24.4	45	27.4	38	24.2
50–100	14	7.4	11	6.7	12	7.3	9	5.5	6	3.8
100–500	36	18.9	24	14.7	26	15.9	26	15.9	28	17.8
500–1,000	15	7.9	18	11.0	21	12.8	21	12.8	22	14.0
1,000–2,500	20	10.5	22	13.5	27	16.5	25	15.2	24	15.3
2,500–5,000	15	7.9	16	9.8	13	7.9	13	7.9	14	8.9
Over 5,000	14	7.4	30	18.4	25	15.2	25	15.2	25	15.9
Total	**190**	**100.0**	**163**	**100.0**	**164**	**100.0**	**164**	**100.0**	**157**	**100.0**
Total agricultural land (in 000 ha)	**221**		**612**		**610**		**609**		**608**	
Average size (ha)	**1,163**		**3,754**		**3,719**		**3,713**		**3,848**	

CURRENT STATE AND FORECAST OF THE ENERGY BALANCE

Year	1980	1985	1990	1995	1995	2000
	E(GWh)	E(GWh)	E(GWh)	E(GWh)	%	E(GWh)
A. Production	**1,908,480**	**3,458,507**	**5,638,572**	**6,068,341**	**98.10**	**7,840,000**
1. Thermal plants	**451,430**	**2,368,378**	**5,148,310**	**5,267,441**	**85.16**	**6,640,000**
1.1. Coal	193,230	2,334,798	5,145,985	5,258,918		5,440,000
1.2. Crude Petroleum	258,200	33,580	2,325	8,523		1,200,000
2. Hydro plants	**1,457,050**	**1,090,129**	**490,262**	**800,900**	**12.95**	**1,200,000**
2.1. Accumulative	1,373,883	1,014,029	430,968	699,630		1,100,000
2.2. Distributional	83,167	76,100	59,294	101,270		100,000
B. Import	**2,376,400**	**1,990,704**	**40,137**	**117,300**	**1.90**	**54,756**
Disposable	**4,284,880**	**5,449,211**	**5,678,709**	**6,185,641**	**100.00**	**7,894,756**
C. Electroenergy	**490,167**	**722,983**	**1,036,451**	**1,182,759**	**19.12**	**1,500,756**
1. Own consumption	**51,480**	**180,772**	**373,764**	**383,361**		**483,255**
2. Mines, Stations, RP	**14,814**	**82,185**	**145,277**	**169,746**		**187,338**
3. Distributional consumption	–	–	–	**7,200**		–
4. Transfer losses	**128,764**	**131,296**	**112,950**	**122,534**		**156,605**
5. Distribution losses	**295,109**	**328,730**	**404,460**	**499,918**		**673,558**
D. Net prod. (A+B+C)	**3,794,713**	**4,726,228**	**4,642,258**	**5,002,882**	**80.88**	**6,394,000**
E. Demand (1+2+3+4)	**3,794,713**	**4,725,228**	**4,649,257**	**5,002,912**	**80.88**	**6,394,000**
1. Distributive	**1,179,307**	**1,581,657**	**1,929,492**	**2,795,328**	**45.19**	**3,740,000**
1.1. Households	1,019,153	1,381,012	1,672,312	2,381,626		
1.2. Services	160,154	200,645	224,924	366,778		
1.3. Public	–	–	32,256	46,924		
2. Industry	**1,052,303**	**1,285,827**	**1,314,133**	**984,686**	**15.92**	**1,300,000**
2.1. 100 kV	229,265	277,069	239,958	180,832		
2.2. 35 kV	235,853	242,157	210,937	119,873		
2.3. 10 kV	551,185	726,601	822,359	636,649		
2.4. 0.4 kV	36,000	40,000	40,879	47,332		
3. Metallurgy	**1,548,469**	**1,845,575**	**1,378,274**	**1,209,565**	**19.55**	**1,324,000**
3.1. Steel	814,856	1,118,174	636,338	140,774		150,000
3.2. Chrome	632,075	599,704	597,161	567,182		650,000
3.3. Ferro metals	–	8,134	3,237	372,934		384,000
3.4. Copper	57,792	71,829	90,368	84,059		90,000
3.5. Lead and zinc	43,746	47,734	51,170	44,616		50,000
4. Transport	**14,634**	**12,169**	**27,358**	**13,333**	**0.22**	**30,000**
4.1. Railway	14,634	12,169	27,358	13,333		30,000

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