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economy*

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Home Demand as a Competitiveness Factor

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Home demand may improve the competitiveness of the overall economy by helping local enterprises to anticipate and respond to the needs of the world market. It must be able to identify the changes in consumers' perceived needs or priorities, which is often a key to success.

Companies achieve competitive advantage through acts of innovation. Innovations that yield competitive advantage anticipate both domestic and foreign needs. The role of home demand in the improvement of a country's competitive environment is to give clear signs to firms regarding these needs.

1991-1997: Reduction Stage

Innovation usually requires pressure, necessity and even adversity in order to be successful. Therefore, consumers should have enough power to compete with producers by forcing down prices and by bargaining for higher quality or more services. Powerful consumers may ensure a necessary pressure, which would create competitive conditions in the economy.

Home demand in Bulgaria has reduced dramatically in the last years. This is due to the decreased purchasing power of the main consumer groups – citizens, government and business consumption (intermediate consumption).

Since 1991, real incomes of citizens have decreased. As result of that, purchasing power of the population almost halved in the period between 1992 and 1996. This reduction is more dramatic if the data on purchasing power of households in 1990 (on the eve of the economic reforms in Bulgaria) and 1996 are compared. Thus, the purchasing power of households has reduced between 2.3 and 4 times, if measured by the purchase of particular goods.

Household Consumption

All of this has caused changes in the structure of household consumption. The change of the structure in household demand is more important than its volume reduction, in spite of the fact that these are closely connected. The character of home demand has a much bigger significance than its size. The share of foodstuffs in the total amount of consumption increased from some 36% in 1990 to about 45% by the end of 1996. Its share achieved an extremely high level of 55% of total household consumption in the first months of 1997, when real incomes were extremely low. At the same time, in the 1993-1996 period, the share of clothes and shoes in the total consumption decreased from some 9% to about 7%, while the consumption of other goods (electricity appliances, etc.) decreased from about

May 1998 marked a the first anniversary of UDF government.

After the unexpected deflation in March, CPI turned positive again in April. The figure is quite modest, however - 0.1%. A serious decline marked meat prices -8.5%. At the same time, transport, clothing, furniture and medical services became more expensive by 2 to 9%.

Budget surplus declined to BGL 264 billion by May 15. Accumulated revenues accounted for BGL 1,625 billion while accumulated expenditures - BGL 1,361 billion. This picture seems to be more realistic, compared to the enormous surplus of more than BGL 320 billion for the first quarter. Annual corporate tax for 1997, paid in March, and huge first quarter advance tax contributions boosted revenues in the beginning of the year. Thus 60% of the projected corporate tax revenues were collected by end of March. Though the tendency of budget surplus decline is about to prevail by the end of 1998, there are strong indications that the annual budget will account close to zero deficit.

Several months after the urea plant Chimco was set for sale to Stelar Global Corp., the deal is close to default as Stelar Global realized that the plant is making BGL 4 billion losses per month. The Ministry of Industry made a new offer, and now the first bidder to pay \$100 million in cash will acquire the chemical giant. No one, however is eager to do that, after urea prices fell drastically from above \$200 per ton in 1994-1996 to \$80-90 in 1997 and beginning of 1998. Consequently, Chimco reported losses of \$5.6 and \$6.2 million for the last quarter of 1997 and the first quarter of 1998, respectively.

First week of June, Russia's debt to Bulgaria has been finally resolved, the pending amount is to be covered by USD 100 million worth of imports from Russia. Bulgarian debt to Italy is about to be settled soon. Italian Prime Minister Prodi promised prompt action on his behalf in order to finally resolve the disputable obligation. According to Prime Minister

Recent Developments & Events

Kostov, the government debt to Italy amounts to DEM 65 million. Italians, however claim that its real amount exceeds DEM 110 million (almost twice as much), after all interest payments are included. Previous Bulgarian governments denied the existence of such debt at all, pointing out that it was a private obligation of Economic Bank and Mineralbank (both in bankruptcy procedures at the moment).

The first privatization deal through Bulgarian Stock Exchange - Sofia was completed on May 28. The last 21.7% of Elkabel-Burgas shares were sold to an US investment fund. Some 28% of the shares are distributed among portfolio investors, mainly Bulgarian citizens and small companies. The 60% package was placed on the floor in January 1998 as part of the government plan for privatization through the stock market. However, Elkabel remained the only enterprise to be sold through the Stock Exchange.

The privatization of Bulgarian Post Bank (BPB) is to be finalized soon. Bank Consolidation Company and Nomura International seem to have settled most controversies about the deal. Two major problems, however, remain open - the obligations and representation of Bulgarian party, and the guarantees from Nomura Intl' for the future development of BPB. If negotiations end successfully, BPB will be the second state bank (after United Bulgarian Bank, sold to Bulbank, EBRD and Openheimer & Co) to become private. The ambitious privatization program of the government to sell all six state-owned banks by the end of 1998, however, is already subject to revision.

Losses in bad-performing state enterprises amounted to \$ 293 million in 1997, according to the National Statistical Institute. This means a monthly loss of \$125 per employee. Compared to 1996 situations has improved significantly - a year ago gross losses equaled \$1.3 billion. However, the liquidation of loss-makers turned a

slower process than initially declared by the government.

Most evidence show that while macronomics of the cabinet's economic policy is being performed well, microeconomics and structural reforms are lagging behind. In this situation, first days of June, negotiations with IMF on the Extended Fund Facility (EFF) were resumed. Prime Minister Kostov, in an extended radio-interview has expressed an agreement with IMF concerning stringent wage policies in the budget sector, and declared priority strategy for boosting economic growth is infrastructure and new interest rate policy. The signal is mixed: in an absence of more specific explanation, an assumption is that the actual meaning is to borrow for government financed infrastructure projects and again embark upon administration of the interest rate. EFF is likely to be signed at the latest possible deadline, mid-Autumn.

It is likely, however, that for the time being the cabinet is failing to properly set priorities. A recent evidence is the Deputy Prime-Minister's Bakardjiev negotiation with TEAS, Turkish Utility giant, of a barter deal Electricity Against Construction Investment, in a situation when at least three foreign direct investment proposals, based on BOT schemes, are pending decision from the government.

Public debate in the past two months has been mostly about the judiciary and administrative reform ideas of the government. Late May, Parliament voted a resolution supported by all the political factions but the Socialist, to increase executive scrutiny on the judges and prosecutors, and without exception all parties agreed to increase the number of not-elected district governors, administrative appointees of the central government responsible for maintaining public order, tax-collection and public properties, from nine to twenty eight.

35% to 29% by the end of this period. At the end of 1996, some goods were almost unable to be bought by citizens with an average income. In 1996, a person earning the average annual wage for the country could only have bought 2 refrigerators, or 2 TV sets, or 3 washing machines.

Investments

The change of the structure of home demand concerns not only household demand, but intermediate business demand as well. This is especially true for Bulgaria where 70% of companies registered are sole proprietors. (They report their income once a year and are not required to keep double entry books; so, their financial (tax) report position is similar to that of households.) The demands of investment goods, which are mainly high-end products, reached extremely low levels in 1995 and 1996. The share of expenditures on acquisition of tangible fixed assets to the GDP decreased from 18.3% in 1991 to 10% in 1996. Thus, the most science intensive manufacturing branches such as electronics and electric appliances, the machine-building industry, etc. have registered the biggest gap in their output in comparison with the end of 80-ies. On the other hand, reduced investment activity of firms diminishes their ability to be competitive on the world market. In the case of business demand, the huge decrease of demand for high-end products is of crucial importance because it does not contribute to the development of clusters for the production of sophisticated final commodities. Sophisticated business demand allows close contact between firms in the development process, and furthermore creates opportunities for them to engage in a joint development process.

Government Debt

Government demand has also decreased remarkably. It has reduced more than two times in only the 1993-1996 period. This tendency is determined by the huge burden of the gov-

Home Demand as a Competitiveness Factor

Continued from page 1

ernment to service debt. It can hardly be expected that the volume and structure of government demand will be able to contribute to the improvement of the whole economy's competitiveness in the near future.

In Search of Enlightened Demand

The presence of sophisticated and demanding buyers is as, or more, important to sustaining advantage as to creating it. Local firms are prodded to improve and to move into newer and more sophisticated segments over time, and over time, often to upgrade competitive advantage in the process. Buyers' behavior predetermines market strategy of local firms.

Buyers have become price sensitive to a very large extent. The main part of the population is low profitable buyers, and they prefer to purchase goods and services of poor quality but relatively low price. This type of home demand behavior does not contribute to the development of sophisticated, high-end products. Bulgarian producers have followed the same strategy (low quality – low price) implemented on the domestic market, until they considered export. This strategy turned out not to be successful, and as a result Bulgarian exporters lost many of their traditional markets.

A typical instance of this is the reduction of Bulgarian exports to Russia. The common opinion of Bulgarian producers of typical Russian consumers is that they are low-income buyers and price-sensitive like Bulgarian consumers. Thus, the strategy 'low-quality – low price' seemed to be good because it had proved its success on the domestic market. However, reality turned out to

be quite different:

- Russian consumers are separated into different segments and there is not a common (or average) buyer. Bulgarian exporters did not have a well-developed marketing strategy and in many cases they tried to enter into those segments, where Bulgarian exports had been well accepted in previous years). Now, these buyers earn high incomes and such a strategy would fail. Foreign customers have a much bigger purchasing power than their Bulgarian counterparts, and they prefer to buy products of high quality while placing less importance on their price level.

- Other countries such as China, etc., which have similar export strategies, are nearby residents to Russia and have had easy access to its market since the disruption of CMEA. In many cases the prices of their exports are much lower than the prices of Bulgarian exports, but the quality of the goods is quite similar. Thus, they are more competitive than Bulgarian exporters in the occupation of the low-income segment of Russian consumers.

As a result, other exporters to Russia have replaced Bulgarian firms because of the Bulgarian firms' wrongly chosen and implemented strategy copied from the home market. The behavior of the Bulgarian consumer did not contribute to the improvement of the competitiveness of Bulgarian exports to the Russian market.

Available Success Strategies?

An example of successful strategy is the development of wine exports. Home demand is traditionally strong and contributes to the competitiveness of the

Bulgarian wine industry on the world market. Keeping the high quality of exported products, as well as good production factors and local rivalry have resulted in a good performance of the Bulgarian wine industry and export. At the same time, the strategy of delivering high quality wines at a low price is not always workable: consumers may confuse the low price with a low quality.

Many foreign firms have successfully competed with Bulgarian firms by importing cheap products of poor quality. Bulgarian producers have requested that the government support them against the low-quality imports. Actually, they have demanded protection against their own strategy implemented by foreign companies. All of this has made the foreign trade regime too sophisticated and has reduced the competitiveness of Bulgarian firms because of the government's umbrella. Deals of non-visible import have grown in number because the importers have tried to get around increased duty and tax payments. The failure of the efforts of the government to protect the local producers is a result of the wrong strategy used by Bulgarian firms to cope with the problem. They requested government protection in order to increase their competitiveness – either by reducing the prices according to the quality of the products, or by increasing of product quality.

According to Michael Fairbanks and Stace Lindsay, in factor-driven economies with legacies of protectionist policies, firms tend to make choices based on comparative advantages. This leads them to compete in areas where cheap raw materials, labour or transportation costs appear to provide an advantage in competition. But to achieve sustainable competitive advantage – which can improve the wealth of the average citizen – firms must compete by constantly striving to innovate in terms of how they deliver value to customers. There, the value is defined in several ways – delivering a low-cost product, a highly differentiated product, or a certain level of

service. For the value to be sustainable, the product must continually respond to customers' evolving needs. Obviously, it has not happened in the case of most Bulgarian producers in recent years.

Buyers, especially business buyers, are demanding where home product needs in an industry are especially stringent or challenging because of local circumstances, selective factor disadvantages, geography, natural resource availability, regulatory standards, taxation, etc.

Comparative Position and the Role of Government

Bulgaria is not a country with considerable stocks of natural resources. Despite this, Bulgarian producers can not develop competitive advantages from the scarcity of domestic energy resources and raw materials. Their prices are very low either because of the existence of international agreements (for instance the Yamburg agreement on gas), low production costs in the country, or government subsidies. Thus, the main part of Bulgarian exports are energy-intensive products, such as products of the metallurgy and chemical industries, but at the same time almost all energy used in the country is imported. Bulgarian firms may lose their competitiveness when these favorable circumstances end (as in the case of Yamburg agreement). At that time, they should rapidly change their demand needs (the technology) or they may go bankrupt.

State control over standards, which should be implemented by the control of individual consumers, is too slack. Firms can easily overturn quality requirements and existing standards. Thus, state control over standards does not stimulate the development of more sophisticated and qualitative products either. This is the root (as well as the decreasing real incomes in the country) of the success of the 'low price – low quality' strategy on the home market, and its failure on foreign markets.

Perspectives

A good perspective to adopt regarding larger contribution of home demand to the development of national competitiveness is the expectation for its rapid growth in the near future. The competitiveness of an industry or economy depends crucially on investments undertaken. The rate of investment is as much, if not more, a function of how rapidly the home market is growing in size. It makes the adopting of new technologies progress faster and lessens fear that existing investment will be made redundant. This risk is even smaller in the case of Bulgaria, because the existing tangible assets should be privatised and their worth (usefulness) will be assessed by the prices of the privatisation deals.

Domestic demand may promote the competitive advantage of the Bulgarian economy in branches, where relatively small investments are needed because of low investment capability of entrepreneurs. This is most likely to happen in branches where the requirements of domestic buyers are traditionally strong as in the food industry, agriculture, etc. The availability of other well-developed factors for competitive advantage, especially production factors, also furthers such a possibility. The availability of good skilled experts in the electronics industry has determined the strong demand of local buyers for software, which may explain the success of Bulgarian software producers. However, all parts of the "diamond" must work as a system in order for the potential of the Bulgarian economy to be realized.

Conclusion

Besides the huge reduction in the size of consumer and industrial demand in the period between 1990 and 1997, there is a change in the structure of the domestic demand towards less sophisticated goods and services. But again, most of the residents have weak purchasing power that makes their demand extremely price sensitive thus reducing the pressure on enterprises to follow high standards.

The food industry has the potential to be an attractive sector and leading Bulgarian industry. A favorable climate and natural resources have served as a foundation for the sector's development; this industry is traditional and has some unique products which could theoretically find niches on the international market.

Competitiveness of the Bulgarian Food Industry

Bulgarian Agriculture and Food Industry: Background

Economic and political reforms since 1989 have been uneven, and policy roll-back towards central planning has led to deep fluctuations in economic and market stability. The last seven years have been characterized by high inflation, an unstable exchange rate, decline of output and negative GDP growth (Table 1). Within this restrictive economic environment only limited effective strategy on a micro level has been possible. Most firms, however, have adopted a "survivalist" strategy. Only in 1997, if the sound initial reforms of the first six months of 1991 are not counted, was progress achieved in introducing macroeconomic stability. But this was only after the rapid depreciation of the local currency (Bulgarian lev, BGL) of about 3,000% between April 1996 and January 1997, accelerating inflation, and a huge drop in bank credits which caused production to decline dramatically. The most serious

economic reversal since the start of transition was registered in 1996, when the GDP fell to - 10.9%, inflation rose to 311% (Figure 1).

As the figure shows, in 1997 agriculture managed to regain half of its decline of the two previous years.

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1997 exports of industrial products was 12.2%, registering a drop of 23% compared to the previous year.

Conditions

Bulgaria has good conditions for agricultural development - 55% of the terri-

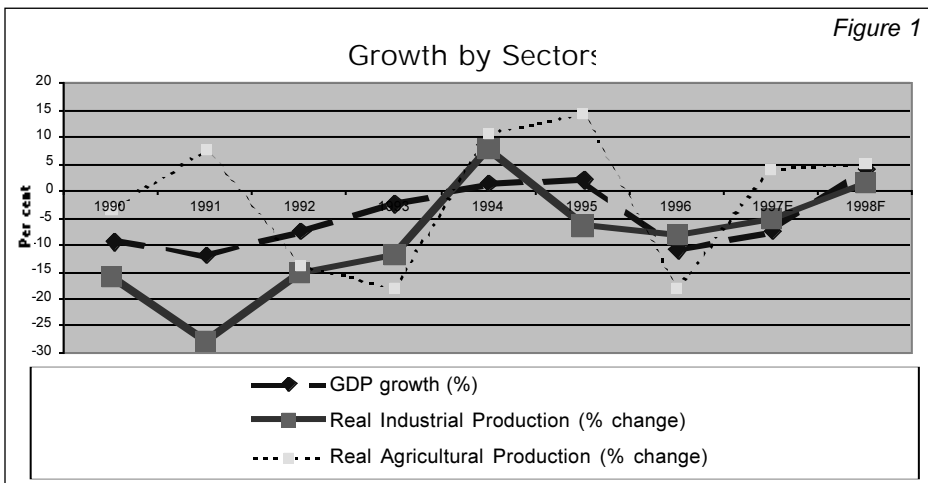
Table 1
Food Industry Share in Export, 1994-1997 (BGL, mln)

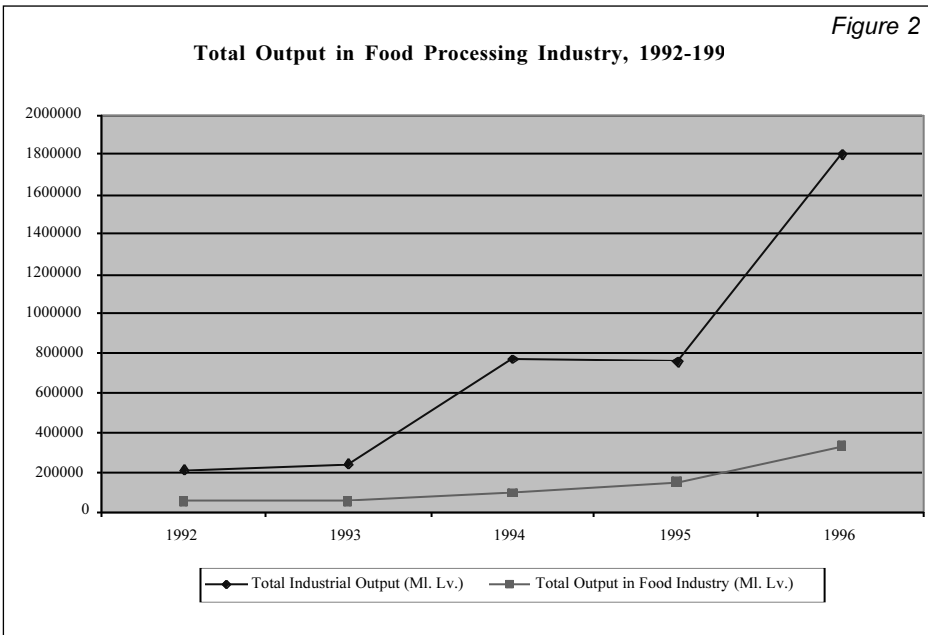
	1994	1995	1996	1997
Food Industry Export (FIE)	37583	60782	140703	1006469
Export of Industrial Products	206089	339998	819610	7482071
FIE as a % of export of Industrial Products	18.24	17.88	17.17	13.45
Total Export	216194	359664	859797	8238100
FIE as a % of total export	17.38	16.9	16.36	12.22

In 1996, products of the food industry, beverages and tobacco accounted for 20% of total output, and its share in

tory is agricultural land. Agriculture in Bulgaria accounted for 14% of GDP in 1996 and 23% of GDP in 1997. It is a major rural activity and has had positive effects on the trade balance. Although Bulgaria has been developing as an industrial country for the last 50 years, the agricultural sector has also been viewed as an important one, given its contributions to the economy. Formerly it was considered a priority because of food security policy, food export, and the social importance of the sector.

Agricultural output has declined severely since the beginning of transition in 1990. There are a few serious reasons for this. One of them is the





instability of the economy as a whole, which consequently led to a decline in demand (domestic and external). The decline in domestic demand was mainly caused by loss of purchasing power and the increased share of food expenditures in income. In addition, changes in consumption patterns, mainly from animal products to cereals, were observed. The fall of external demand was caused mainly by the collapse of trade with former CMEA countries. Bulgaria had traditionally been oriented toward the CMEA market, and the ratio of import and export to GDP was over 75% before the collapse of COMECON (OECD, 1997). The collapse of this market was reflected by a sharp decline of GDP and increased unemployment. The crises in Yugoslavia restricted new trade opportunities with Western Europe, as the transport of perishable goods was virtually impossi-

ble.

Another factor in the decline of agricultural output is limited access to financial resources for the sector - shrinking subsidies, lack of individual capital and collateral, and credit problems. Attempts were made to subsidize credits "for production" of grain but they were mainly used for working capital. The stock of agricultural machinery has been reduced by about one third (EIU, 1996) since 1989, and what remains is not sufficiently maintained and/or is inappropriate for small-scale farming. Also, the entire sector and state owned enterprises (SOE's) of the tobacco and food industries face the problem of decapitalization (transfer of profits and assets into private hands and a shadow economy), thus reducing potential for capital investments while simultaneously contributing to high political risk.

Average annual growth in agriculture shows a diminishing scope in the last three years : in 1995 (-1.0 %); in 1996 (-7%). For the last decade (1986-1996) average annual growth was estimated to be (-2.6%).

During the last five years, the generated production in the food processing industry has declined by 22% within industrial production as a whole (See Table 2, Figure 2).

The food processing industry employs nearly 4% of those employed by SOE's. The average number of those employed in the food industry dropped from 177,169 in 1989 to 123,304 in 1997.

Although not concretely measured, the output per employee in agriculture seems to be falling with the overall drop in production. To assess the actual number of people working in the new types of cooperatives or other structures is still difficult because of the rapid changes in these structures. Some figures show that rural unemployment rates are higher than those of urban areas. A significant part of small-scale farm production is usually directed back towards its own consumption and may not be accounted for.

Crop production has been better preserved than animal production. Sectors like tobacco, fruit and vegetables have been heavily hit. Negative results in the crop sector have mainly been due to the cumulative decline in productivity. Poor weather in 1992-93 made things even worse, but this was not the main factor. The livestock sector was mainly hit by the liquidation of state coopera-

Table 2

Total Output in the Food Processing Industry

	1992	1993	1994	1995	1996	1997
Total Industrial Output (M BGL)	209555	242571	771653	756339	1804455	16535324
%	100	100	100	100	100	100
Total Output in Food Industry (M BGL)	49994	54712	97042	150758	334082	2808868
%	23,86	22,56	12,58	19,93	18,51	16,99

tives and enterprises. This could be due to the fact that the sector had been artificially boosted under the centrally planned system, but the cost-price squeeze, changes in feed supply and changes in demand patterns must also be considered.

The food processing industry is a sub-sector of the food industry which also has 15 other sub-sectors: meat pro-

The Food Industry under the Centrally-Planned Economy

Under Communism, Bulgaria followed an orthodox path of development and its agrofood policy evolved in three phases

First Phase: 1954 - 56
Collectivization: collective and state farms established

opment, but the underlying structural weaknesses would probably have necessitated policy innovation regardless. In the pre-reform period, all activities for organizing the purchase and distribution of agricultural commodities in the downstream sector were governed by the Council of Ministers via decree. The practical management of these decisions was presided over by the Ministry of Agriculture and Central Co-operative Union. The Ministry was obliged to:

- (a) organize and manage the purchase of agricultural commodities;
- (b) elaborate plans for purchasing;
- (c) assure the signing and fulfillment of contracts between agriculture production co-operatives and processing industries;
- (d) develop the technical basis of the process.

Because of price liberalization in 1991, input prices have risen more than farm prices and consequently subjected agriculture to a cost-price squeeze. As a result, the application of fertilizers and pesticides has been restricted and this has effected many crops yields.

Prices in the centrally planned economy were fixed, so in order to supply consumers with food at a low price, the agricultural producer's prices were also kept low, sometimes even under that of production costs. To compensate for these losses, farmers were supported by the budget. This support was in the form of deficiency payments, output bonuses, price, input and export subsidies. Since the beginning of the reforms in 1990, the system of support has changed and budgetary expenditures decreased dramatically - by more than 97% (at 1990 prices) for the period 1990-95 - due to budgetary constraints and deficits. The basic support since 1992 has mainly been through credit subsidies for spring and autumn seasonal work and tax concessions.

Table 1

Table 3. Sub-sector structure of foreign investments (1996*)

Sub-sector production	Share of Total Food Processing Production %	Production Volume in US\$ M
Canning Industry	38.7	103
Brewing Industry	19.7	52.54
Grain Processing	17.3	46
Confectionery	12.8	34
Dairy Processing	8.4	22.34
Vegetable Oil	2.1	5.5

* There is no later data.
Source: *Foreign Investment Agency*

cessing, fish processing, dairy, canning, sugar, vegetable oils, the wine industry, the brewing industry, tobacco, the milling industry, confectionery, beverages, etc.

The largest privatization and direct foreign investment have so far taken place in the food processing industry. Approximately 25% of the total amount of foreign investment, and over 50% of industrial investment, is concentrated in the food industry. Table 3 below shows the food industry sub-sector structure of direct foreign investment. Most of it has taken place through privatization, but the process as such is insider driven. Outsiders are largely restricted to information regarding accounting losses, while insiders are best placed to buy companies because of correct valuation of these companies' potential.

Second Phase: 1958 -

Reduction in the number of collective farms (eventually the numbers cut by three-quarters). Consolidation of state farms.

Third Phase: 1970 -

Industrialization of Food Production. Aim of creating 'fusion' between industrialized agricultural production units and industrial enterprises in the food industry.

The initial years of the Communist regime saw a concentration of restructuring of the agricultural part of the food chain (phases 1 and 2) followed by, in the 1970s, a belated movement towards industrialization and rationalization of the downstream sectors (phase 3). In Bulgaria the poor harvests of 1967, 1968 and 1969 acted as a catalyst to this third phase of devel-

Price Regulations

Although partial price liberalization took place in 1990, there were still fixed prices for some basic agricultural products. Farm-gate prices increased, but there was a ceiling on retail prices of bread, milk and dairy goods, meat, sugar, vegetable oil and baby food.

In February 1991, as part of the general macroeconomic reform, most prices were liberalized. Minimum prices were introduced for some basic farm products - grains, wheat flour, meat, and milk. These were minimum prices below which any trade was prohibited, but not prices signaling market intervention. These prices were fixed on current prices, albeit below the world level, and because they did not reflect the inflation of the period, they tended to stay below the level at which they had been set. Because of this, they didn't have real economic effect. The retail prices of thirteen food products were monitored and controlled by the so called "projected price mechanism". Projected prices were based on the minimum producer prices and normative profit margins (percentage of production costs) accompanying the down-stream sector. There were no predetermined price ceilings for processors and traders; instead there were normative profit margins being added to the costs and purchasing prices of raw materials. The projected price mechanism was introduced as a temporary measure to control the monopolism in the processing and marketing area before completing the privatization process, and to keep the prices of food low during the restructuring of Bulgarian agriculture. However, though the prices of main agricultural products almost doubled during that period, this increase did not compensate for the rise of input prices and services. The system was considered inefficient as the increase in the prices of monitored goods was larger than that of non-monitored ones - there were some fluctuations around projected prices from 6% in 1991 to 36% in 1992.

One of the explanations for this paradox was that the prices of monitored goods were much more heavily subsidized at every level of the food chain before the beginning of the transition period, and therefore could be considered an explanation for the distortions.

Besides this, the level of controlled prices fell in 1991 to 10% of the consumer basket (other goods and services being public transport, communication and electricity).

In March 1993 the system was changed again - the so called "maximum prices" (ceiling prices) were introduced. There were no longer any projected prices, and a modification of the old system of normative margins, this time called "profit margins" was implemented. The profit margins were fixed for producers and processors at 12% of full production costs and for traders at 10%. As a consequence of the economic crisis in April 1994, which resulted in the increase of food prices, the list of monitored goods was extended to include butter, eggs, sunflower oil, lentils, rice, baby food and others. The philosophy of the government at that time was focused on the same goals of food security, social stability and protection of consumers.

In 1995, the Price Law and the Agricultural Producers Protection Law were adopted and the "Agriculture" fund established. The so called "protective purchasing prices" (guaranteed floor prices) were considered the main support measure for basic agricultural products such as: wheat, maize, sugar beet, potatoes, beef, lamb, pork and sheep and cow milk. The main idea was to ensure the necessary quantities and so provide a "national balance". Prices were calculated on the basis of the average production costs of representative farms plus a profit margin - 5% to 20% - and they could not exceed 85% of the national currency equivalent of the average export price over the previous 3 years. The market agents (traders and government agencies) under contract were obliged to

purchase at these prices up to the pre-contracted quantities. In the case that market prices fell within a month at a certain level below the protective purchasing price (below 95% of the established protective purchasing price or if current prices went higher than 20% above the purchasing prices), the government agencies were supposed to purchase without ceilings (not restricted by national balance considerations and contracts). The intervention required a large amount of money for purchasing the supplied quantities, which under the economic reality of financial shortages was doubtful (For 1996, because of the lack of financial resources, a protective purchasing price (guaranteed price) was established only for sugar beet and targeted (projected) prices were established for all the others main products). For other agricultural products, the so called "target prices" (project prices) were introduced. They were based on the monitoring of market prices and accorded to the annual program for agricultural development. The objectives pursued by the "Law for state protection of agricultural producers" were the following: to support agricultural production by market interventions and price regulations under the management of government agencies; to ensure reasonable income for farmers; to promote exports by eventual export subsidies; to provide special support for the mountain and semi-mountain regions; and to ensure improvement of new farm structures by investment support. Financial sources were supposed to be provided for by the budget - partially from collected export taxes and import duties, partially from privatization and the renting or selling of state land. The main criticism to the new Law was the reverse role of the State, which is accepted as being contradictory to the creation of a competitive, free market. Also, because the protective purchasing prices were based on the average production costs plus determined profit margin, they were no incentives for reduction of costs or increase of effi-

ciency. In addition, given that they should not have exceeded 85% of the average export value per unit, the incentive for getting higher prices when exporting remained.

By the end of 1995, the average level of prices under control had already reached 49% of the consumer basket.

Export orientation of the food industry

The Bulgarian food industry has traditionally been an export-oriented industry. During the period of centrally planned economy (CPE) it blossomed under the conditions of COMECON markets. Two government companies, Bulgarplodexport and Bulgarplod, were respectively exporter and importer. There were enough foreign markets to implement large-scale production, there was a relatively developed domestic market, and there was full vertical integration (agriculture - food processing - packaging - marketing and trade) within the former operating structures. There were capital resources, R&D, a foodstuff machines industry, etc. In 1990, Bulgarplodexport and Bulgarplod were dismantled. Deregulated firms encountered foreign rivalry for the first time. In general, conditions declined, reasons being more than one:

- The fact that the food industry had been a functioning one was not due to market forces; thus, the collapse of the CPE automatically provoked the collapse of the industry in question.
- The main foreign market, Former Soviet Union (FSU), collapsed in 1990-91 and the food industry, being strongly dependent on this market, suffered as a consequence of these changes.
- The commercial agreements between members of the former Council for Mutual Economic Assistance (CMEA) ceased to exist; thus, many markets were lost or the rules changed.
- Integrated or related industries had

the same destiny, so the functioning of the canning industry was further blocked.

Food Industry Competitive Advantages

In assessing these advantages, M. Porter's concept of different stages of competitiveness will be used. There are four stages of evolution of competitiveness which a nation or an industry goes through: factor-driven, investment-driven, innovation-driven and wealth-driven.

The Bulgarian food industry (BFI) is an example of a typical factor-driven industry. The factors are: a very favorable climate, highly fertile soil, high-quality agricultural production, low labor cost, a skilled and qualified labor-force, etc. These factors are the only sources of comparative advantages. To be an investment-driven industry, the food industry as a whole must introduce a market approach, i.e. to embark upon positive return on investment, market-based competition between firms, steady and reliable relationships with supporting industries, absence of monopolies, etc. Therefore, being still in the factor-driven stage, the challenge in front of the Bulgarian food industry is to pass into the investment-driven stage, led by competitive strategies implemented on firm and sector levels.

The availability of human and knowledge resources is one of the main factors that can be considered as a BFI comparative advantage. On one hand, Bulgaria has traditionally been an agrarian country. Agriculture, until the end of the 1950's, had always been the spine of the national economy. The Bulgarian farmer had always been a skilled farmer. The cost of manpower had always been relatively low. During the communist period a lot was done to improve the human resources in this sector, and farming was based on big collective structures - including the institutions which provided training of

specialists for agriculture and food industries: the Institute for Fruit-Growing (Plovdiv and Kiustendil), Institute for Vegetables "Maritza" (Plovdiv), Institute for R&D in the Canning Industry and Institute for Food Industry (Plovdiv). The cost of a specialist's labor has also been low. Since the collapse of the communist regime, the classes of former state food engineers and specialists have been the main reservoir for the new generation of managers for the private food industry. Currently, the number of agriculture university students is 70% of those studying law, and post-graduates are 5% of all postgraduates.

Another factor is physical resources. Bulgaria has 6,203,000 hectares of agricultural land, and of that, 4,804,700 hectares are arable (NSI, 1997). A great part of the arable land is of high-fertile soil. This means high-quality agricultural production as an input for the food industry; thus, high-quality processed products. The climate conditions of the Bulgarian geographical position are excellent. A mild climate permits the cultivation of a wide range of crops and livestock.

In the past as well as in the most recent six years, electric power was always subsidized. This is an infrastructure factor. In 1997-1998, the power generation industry has been changing from a heavily subsidized one into an efficiency-oriented one; the price of one kWh has risen (from 2.8 cents per kWh to 6.1 cents) and become a significant cost burden not previously taken into account for all industries. The power sector is a government monopoly. Prices are fixed to cover the costs of the producer and there is a cross-subsidy to households, who pay twice as less.

The transportation system is another infrastructure factor, which renders the development of industry sustainable. There was a good infrastructure, centrally planned, and at a low price. Likewise, the energy factor. During the

transition period the transportation system turned into a significant cost factor. The former state monopoly in international transport "SO-MAT" is in the process of privatization. Food enterprises consider transport costs high, although companies that export high quality (and/or delicacy) products have never mentioned this factor as one impeding competitiveness on international markets. The Bulgarian private international transport sector (aside from SO-MAT) is also expensive for firms, being under the constraint of efficiency. Railway transport has also always been an important supporting factor.

Before the collapse of CPE, foreign trade was managed by different state monopoly organizations like "Bulgarplodexport" for fruit and vegetables (fresh and processed), "Vinprom" for wines, "Rodopa" for meat and meat production, "Serdika"-for dairy products, etc. To find a market niche for this production on foreign markets was not a problem because firstly, the rate of export production was planned and a market segmentation within the former COMECON countries existed (i.e. Bulgaria was specialized, on that level, in food processing, wine and tobacco, textile, etc.), and secondly, nearly 90% of the production was destined for the FSU and other former COMECON countries. The markets there were not well developed and consumers had no other option. Consumers were put in a vacuum, and as a result of relatively low incomes in those countries, these markets existed. A market approach was not indispensable. The main marketing leverage was the low price. In 1990-91, the FSU market collapsed and this fact changed the rules of the game. Although the Russian market is recovering from the crisis now, the BFI cannot rely on this market as it did in the past. There are a few reasons for this: firstly, the requirements for quality and the standards of the Russian market are by now higher than in the past, secondly, because of the new-born

competition on the part of the former soviet republics for the above mentioned market, and thirdly, Russia is no longer a CPE country and the quantities of imported canning production are based on demand and supply, and not on the "planned demand".

The food industry is a capital-intensive one. The demand for turnover capital is seasonable (exceptions are the dairy and meat processing industries where raw material input comes regularly within the year). Summer/autumn is the period of purchasing raw materials (agricultural products), thus the period of highest demand for turnover capital. The return on the investments is not immediate and thus this delay in investment-return causes a lot of problems for producers facing their other duties. Moreover, given the low rates of profit typical for the industry, investments in fixed capital (new machines, equipment and technologies) are beyond the possibilities of processing firms. The supply of turnover capital and fixed capital was not a problem during the CPE period. This is the sc.. capital resources factor. The economy was following the principle of subsidies. Usually state enterprises were on a soft budget constraint and were credited by the state. With the collapse of CPE the situation radically changed. Since 1990, the process of crediting has been closely bound to the development of the banking system. The transition period was characterized by bad banking management. There has always been a lack of efficient criteria for lending loans to canning firms, especially short-term loans for turnover capital, so important to the industry in question. There is still a lack of precise rules about how a loan may be guaranteed. In fact, there are legislation rules for loan guarantees, but bank managers don't respect them, and in practice, are not able to estimate a real rate of credit risk. Tight credit policy (because of the high rate of interest and shortage of liquidity) deprives firms of capital sources, so neither turnover capital for

raw materials and short-run duties nor capital for maintenance and innovation of the fixed capital, are available. All this is to the detriment of competitiveness, and even hinders the capacity of industries to survive.

Firm Strategy, Structure and Rivalry.

This element of the "competitive diamond" is bound more to the future than to the present of the BFI. It relates especially to the direction of Bulgarian food processing companies, and not so much to their current situation. According to Porter's theory, this determinant is the context in which firms are created, organized and managed, as well as the nature of domestic rivalry. Most important are:

- motivations of individuals, who manage and work in firms, to develop their skills as well as to expand the effort necessary for creating and sustaining competitive advantage;
- the elaboration of special firm strategies in the sphere of resource utilization, costs and prices, innovations and technological development;
- rivalry among firms in a national market which urges them to improve and upgrade their management structures and strategies in line with achieving greater competitiveness in the world market.

For the presence of these three context conditions to exist, there must be above all a real competitive environment (market). This means free circulation of information, transparency, absence of unnatural monopolies, a uniformly distributed level of profit, tight institutional control on the quality of production following precise standard levels, a good level of management, a developed loan market, developed relationships within the industrial clusters, a good level of demand, etc. This is not the case of the BFI.

The individuals who manage and work in firms are not motivated. There is no

developed market in which firms must create a special competitive advantage. Market strategies are price-based and this is due, above all, to the low price of manpower. On the other hand, the very low level of salaries means an absence of motivation to improve skills and the quality of work (both of workers and management).

The elaboration of special firm strategies is an almost impossible undertaking. This is because of the lack of steady parameters for making production and investment programs. Firstly, the supply of raw materials doesn't provide steady parameters such as regularity, price and quality. Almost always transactions are not based on contracts and are sporadic. The supply of jars and caps presents the same kind of problems (see Cluster). Contracting is not a widespread practice. Producers are often forced to turn to foreign markets. Secondly, there are not yet steady macroeconomic parameters. In spite of the introduction of the Currency Board, the current situation is not favorable for making middle and long-run programs. Foreign trade policy, taxation and crediting are still in the fermentation stage. Thirdly, as mentioned above, the profit margins of the canning industry are rather low, so technological innovation without further investment is unachievable.

There is not a developed competitive-based national market for the food processors which would urge firms to improve. The average standard of living of the population is low and therefore the purchasing power and potential demand is rather low. In addition, there exists a tradition of partial self-sufficiency in Bulgaria. This fact exercises a strong influence on national demand for processed food products. Moreover, the Bulgarian consumer is not a mature (sophisticated) one, so national demand could not offer useful criteria for competitiveness abroad.

It is clear that, at present, there are no motivations for individuals, there are no

precise firm strategies, and there isn't a developed national market. The potential of national resources (skilled manpower, existing infrastructures, traditions, geographical position, favorable climate, etc.) is not fully utilized. As a consequence, the link between competitiveness on the national market and competitiveness on the world market does not exist.

Cluster.

Competitive advantage in some supplier industries confers potential advantage on a nation's firms in many other industries, because they produce inputs that are widely used and important to innovation or to internationalization. In terms of the food industry, 'related industries' means agriculture, the jar and tin industries, the transportation system, and marketing and promotion (as supply of service). Related industry is the one which supplies the canning industry with means of production (machines).

At present, there is little "clusterization" of the BFI, and this does not provide competitive advantage.

The BFI: Environmental Obstacles

Which are the main obstacles that do not allow and impede the BFI to be a competitive one?

1. Land reform has had an indirect influence on the food industry. Reinstatement of property rights over land has effected the optimal size of agricultural production. On one hand, land fragmentation has been observed since the beginning of the reform. The size of land is much too small. The average size of restituted land per applicant in Bulgaria is 0.1-0.12 ha. On the other hand, land owners have been restoring their property rights on a large number of plots situated in different parts of the territory belonging to the settlement (TBS). Obviously, land reform has led to temporary land frag-

mentation (According to experts evaluation land fragmentation is a temporary phenomenon. Expectations are that at the end of process, i.e. after completing of land reform, there will be adequate economies of scale of the farms). Land fragmentation and land reform have caused a huge drop in the amount of land for new vine plantations, i.e. at the beginning of the reform, new vine plantations covered 45,000 decares, whereas now they cover only 600-700 decares. Coverage has dropped by almost 70 times. These two general characteristics have had a deep impact on agricultural output (quality and quantity) and have caused an imbalance on the raw materials market.

Land restitution and farm restructuring. The ongoing process of land restitution has had a negative influence on the supply side. Agriculture is the only supplier of the food processing industry. All obstacles for further agricultural adjustment have had an indirect negative impact on food processing as well. Land reform has caused temporary stagnation in agricultural production. Existing production units (Labor Production Cooperatives - TKZS) have been being dismantled. New production units have emerged. Mainly these are: (i) small individual private farms operating with very limited resources - land, labor and capital. Their production is oriented towards self-sufficiency. Some of them could provide agricultural products for the market; (ii) new cooperatives have emerged on the basis of previous TKZS; they have duplicated some of the specific features of TKZS, and they are oriented towards cereals. Thus, their market orientation is the domestic market and food security for the country; (iii) farming companies have registered under the Commercial Law. Those of them that farm land develop their farms either on the basis of leased land, or on the basis of a small amount of owned (restituted family land) and leased land. The most important characteristic is that these farms are market oriented (mainly

because of the economies of scale). Structural adjustments in agriculture have caused a diminishing quantity of agricultural products on the market.

2. Privatization has had a dual effect on the competitiveness of the food industry. On one hand, this process helps managers to develop a new range of enterprises based on private ownership. On the other hand, the process of privatization and restitution of buildings creates problems such as overly high rents or overly short rental contract duration.

3. Access to raw materials. Structural adjustment has caused not only a decline in agricultural output, but also a drop in its quality. Respondents pointed out that low quality in provided products diminishes the quality of the processed products. The raised point was that processors have two options: either to purchase a limited quantity of agricultural products, sometimes with low quality and irrelevant price, or to import the necessary quantity from neighboring countries (Macedonia, Greece, Turkey, Yugoslavia). This factor plays an important role in the wine industry and the canning industry (processed vegetables). Food processing is dependent on the agricultural base, which is currently weak. The har-

vest in last few years has been below target. Further falls in the quantity and quality of domestic production could result in raw materials being imported, which would put pressure on costs.

4. Access to credit. Although a lot of credit institutions exist and operate in Bulgaria, a major problems is lack of credit. Lack of collateral is an obstacle for obtaining working capital credit.

5. Access to information. Respondents claim that there is no transparency of information. They face a lot of difficulties trying to obtain relevant market information. Very often there is more than one source of information and the information provided can differ significantly.

6. Trade regime with its instability and frequent changes has had a negative impact on the food processing industry.

7. Juridical Framework. This factor has two dimensions - the domestic juridical basis, and the necessity to develop, amend and harmonize existing laws with those of the EU. A topic under discussion concerns exercising quality control over food products.

Existing Bulgarian State Standards are not compatible with those accepted by the EU. These differences make some Bulgarian products uncompetitive on EU markets (the last hot discussion was focused on dairy products and the fact that only three dairy processors have been licensed to export dairy products to the EU; the others do not meet the requirements for sanitary conditions required by the EU). The result is loss of market position.

8. Inputs. The jar industry in Bulgaria has a quasi-monopoly position when compared with the food industry. Although it does not provide high production quality to national producers and the BFI's demand has dropped, it has become export-oriented. A lot of food-processing enterprises are absurdly constrained to import jars from Turkey. The high rate of defective production or importation of jars represent much of the overall cost of the food processing industry's production. The cost of raw materials for the Bulgarian jar industry is destined to increase. The reason is the privatization of the industrial complex "SODI - Devnia" - the main supplier of calcinated soda to the glass industries - and thus the price of raw materials for the jar industry will rise and, subsequently, prices of jars will rise as well. If the jar industry is not privatized as soon as possible, it will no

Table 4

Sector Focus and net Profitability

Food Industry Subsector	Export potential	Cost Base	Net Profitability %		
			1995	1996*	1997
Food	Very High	Domestic	0.2	0.3	0.2
Beverages	High	Domestic	3.3	3.2	3.18
Wine	Very High	Domestic	2.6	2.4	2.3
Tobacco	Very High	Domestic	0.2	0.3	0.2
Fertilizers	High	Imported	6.6	5.8	5.5

* Net profitability for 1996 and 1997 is based on authors own evaluation. Different sources are used

Source: Raiffeisen Bank, Country Report, October 1996

longer be possible for the canning industry to rely on the Bulgarian jar industry.

The production of tins during the period of CPE was mostly a supplementary activity in addition to food processing in big state manufacturing facilities. The small scale of production has rendered it inefficient in conditions of a non-planned market economy and it has almost disappeared. Moreover, the demand for this type of packaging is decreasing in developed markets.

The polyethylene-based package industry, similar to jams, must raise its prices in order to be economically efficient and of good quality. A basic condition is that it be privatized. However, the higher price will mean a further cost burden on the BFI. One can see that there is only one kind of sustainable link between the BFI and package industries - efficiency on both sides. At present, there is no efficiency on either side. The package industry does not represent a source of competitive advantages for the BFI either.

9. Marketing. As mentioned above, the marketing of the BFI is at a low level. In the past, foreign trade companies, specialized in each sub-sector, managed numerous foreign trade offices, especially in the FSU and other former COMECON countries. If we assume that it was a question of marketing, it was based only on the low price of production and on agreements for mutual economic assistance. At present, the managers face many obstacles:

- less information on foreign markets and lack of infrastructure to provide it;
- low price is no longer a sufficient condition, production must achieve EU standards of quality and safety;
- private market research is an unsustainable cost for a greater part of canning firms;
- there is a lack of skill in market

research;

- the Russian market does not provide steady parameters for creating marketing plans.

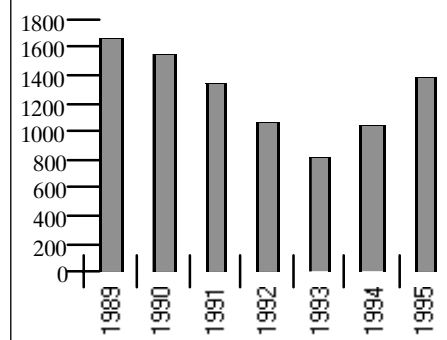
Facing all these obstacles, managers can rely only on old personal contacts created during the CPE or on market research conducted by potential foreign clients. For the time being, there is a lack of opportunity to improve the image of BCI production on foreign markets. Marketing is not a sound base for the increase of competitiveness of the food industry.

Government Policy

Without a doubt, a policy for market economy and competitiveness exists. The problem is that currently there is still a lot to do and changes are introduced slowly. Land hasn't been given back to its owners. This hinders the development of agriculture, which provides raw materials to the food industry. Meanwhile, the process of privatization has been slow and ineffective. The reasons are bureaucracy, the lack of concept, and clash of interest.

The new corporate tax law is similar to the ones of industrialized countries, but applied to an underdeveloped economy, it has turned into a large obstacle. There is no tax facilitation for firms that reinvest their profits or invest in new productive assets. The fiscal mechanism does not function, and this, together with high quotas, is a kind of catalyst for fiscal evasion. The state administration is ineffective and bureaucratic (in the negative meaning of the word). There is a lack of dialog between administration and economic operators. The irresponsibility and fear to take a position or personal decision deposited during the socialist period are still circulating within the institutions. Not only is business rendered difficult to carry out, but it also makes the process of introducing new laws or directives for development very difficult. In Bulgaria, the phenomenon of duplication of functions among institu-

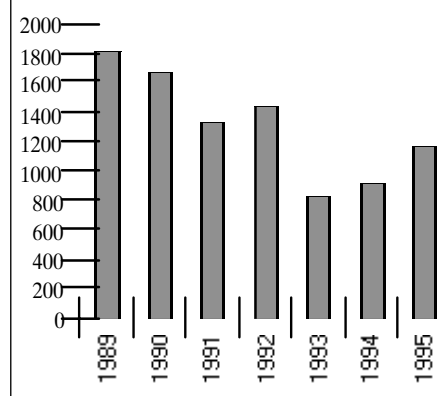
Figure 3.
Overall vegetable production
(thousands tons).



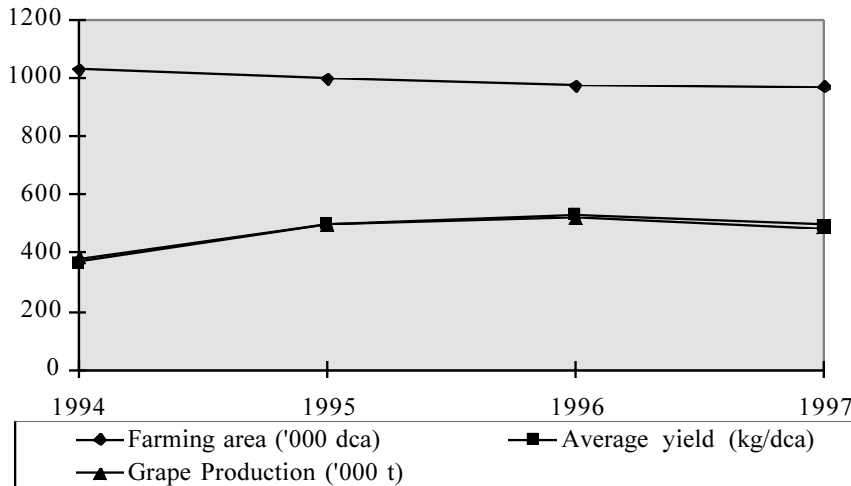
tions exists. One example is the control and licensing of wine and products of the canning industry. As a consequence, there is a high rate of skepticism, which impedes the return of confidence in state administration. It's going to be hard to revitalize economics, confidence being absent.

The Bulgarian food industry is still in the factor-driven stage. It works below 50 % of its existing capacity. The BFI possesses the potential to "jump" into the investment-driven stage, but it must find a spiral by which to exit the vicious circle: banks don't give loans to producers, and the producers don't offer good guarantees or convincing business plans. The main problem is the lack of reciprocal confidence. In the investment-driven stage the competi-

Figure 4.
Overall fruit production
(thousand tons).



Grape production, 1994-1997



tive advantages are drawn from two determinants - the first being factor conditions, and the second a combination of firm strategy, structure and rivalry. The factor conditions will remain an important element, but as a function of market requirements. The most developed industries are the ones that are able to create competitive advantage based on local resources. Finding an

exit from the vicious circle is a governmental task. For example, it could create funds to guarantee and grant loans to Bulgarian exporters. Having capital resources, the firms would invest and try to achieve the market requirements. A real market competition should be established, monitored by the Government. This will be the basis for the elaboration of strategies. Moreover,

there is a lot to do towards creating of a good information infrastructure.

Although the food industry as a whole is not a competitive one (It is necessary to underline that there is potential in the cluster of food industry and lack of competitiveness should be consider as a temporary status), there are sub-sectors that exercise their competitiveness. According to Porter's theory, two sub-sectors fulfill almost all the requirements to be defined as competitive - the canning industry and the wine industry. In the next years, the industries which are most likely to perform are those where Bulgaria has a cost advantage or particular niche, and where the industry directs a substantial proportion of sales to export markets. Focus sub-sectors are:

- Food - a large fruit and vegetable canning industry which is highly export oriented;
- Wine and Tobacco - major export earners;

The main question is - does the profitability of those sub-sectors of the food industry actually correlate with its

Table 5

Output : type of food products, beverages and tobacco

	1989	1990	1991	1992	1993	1994	1995
Vegetable cans - t.	304563	244414	184972	81268	86779	143220	134405
of which:							
Sterilized	205772	157293	117621	52587	56000	84235	76704
Tomato paste	59516	49704	30223	11684	3685	13410	28283
Fruit cans (excluding pulps)- t.	289583	210871	80322	49561	45821	31233	31603
of which:							
Marmalade	6606	6440	5377	3461	3968	3072	3582
Jams, table jellies	28743	12394	9096	6249	6165	4052	3618
Compotes	93444	65911	21261	21798	19422	8991	6095
Fruit pasteurized juices	101932	89149	29957	2742	5240	5592	2230
Fruit syrups	14023	5278	1106	474	934	1032	31
Baby Food - t.	18919	12311	12069	7548	8604	11104	3063

export potential? The evidence suggests that while exports may guarantee growth in revenues, they do not necessarily enable a company to make a satisfactory profit on those revenues. Why? Because another major impact on profitability is the level of input costs, and it does not help if those costs are imported - currency exposure, together with artificially high prices make it difficult to break even. Additional "negative" influence is a seasonal timetable of production.

Bulgaria is a traditional producer of vegetables and fruit and, consequently, its own agriculture has always been a good supplier of inputs (raw materials) to the BCI. After 1989, vegetable and fruit production began to decrease. Since 1994, the trend has changed, but levels of production are still considerably lower than those of 1989 (Figure 3, 4 and 5).

The average crop yields are lower than in the past. Since 1993/94, crops of many sorts have begun to rise. The reason for the low level of crop yields is the lack of investment for seeds, agrochemical products, machines and equipment.

The Canning industry

Installed capacities are capable of producing more than 950,000t of finished products. In 1989, Bulgarian export of processed fruit and vegetables amounted to 500,000t, above all of the former CMEA. The entire production for the year amounted to 594,146t. The collapse of the Soviet market and coordination of the chain (agriculture-processing-packaging-marketing-sales) brought the production to 130,829t in 1992. In 1993, a weak increase in overall production of the canning industry (132,600 t) started. In 1995, nearly 90% of the ketchup and other tomato sauce exports were routed to Russia; the remaining part to Germany, Ukraine, Belarus, the Czech Republic, Kazakhstan, Romania, Lithuania, and Estonia. Sterilized tomatoes are predominantly exported to Russia (nearly

92%) and Ukraine; sterilized peas to Russia, Kazakhstan, Ukraine and Belarus; sterilized mushrooms to Russia, Macedonia, Jordan, Finland; other sterilized vegetables (marinated peppers, carrots, etc.) to Russia, Germany, Saudi Arabia and Kazakhstan; frozen vegetables - mostly to Greece -72.5%, France - 7.4%, Germany - 3.2% and Italy - 3.1%; jams and jellies to Russia - 38.1%, Germany - 23%, Jordan - 14.1%, the Czech Republic - 3.7% and Austria - 2.6%; frozen fruits - mostly to Germany - 50.4%, Holland - 13.3%, Greece - 10.9%, Russia - 5.1%, France - 4.8% and Austria - 4.4%.

What is remarkable is the fact that the increase in production of processed vegetables coincides with the decrease in production of processed fruits from fruit-trees. The reason is the higher dynamism of the one-year cultures. This kind of agriculture production is more flexible to react to a constantly changing economic environment than is the perennial plant.

In southern Bulgaria the concentration of this sub-branch of food industry is higher compared to that of northern Bulgaria. The highest number of

means of production are concentrated in the Plovdiv and Pazardjik regions, followed by the Stara Zagora and Jambol regions. In the outlying south regions (the Rhodope Mountains) there are no canning industry manufacturing facilities. In northern Bulgaria the highest concentration is in the Pleven and Veliko Tarnovo regions. The Rousse and Montana regions follow. The firms situated in Dobritch and the mountain and semi-mountain northern regions have a commercial activity as well.

There are two channels by which the processing of fruit and vegetables are provided. The first one is what remains of state enterprises. The second one is the private canning enterprises. Given that the process of privatization is an ongoing process, it is impossible to specify the share of state production and the share of private production. According to some research, the share of private enterprises is about 1/4. What is certain is that state enterprises are destined either to be privatized or to disappear. To state and private enterprises there could be added the channel of dealers. It is a question of organizers with skills in marketing and information on the markets (above all foreign ones). They stipulate contracts

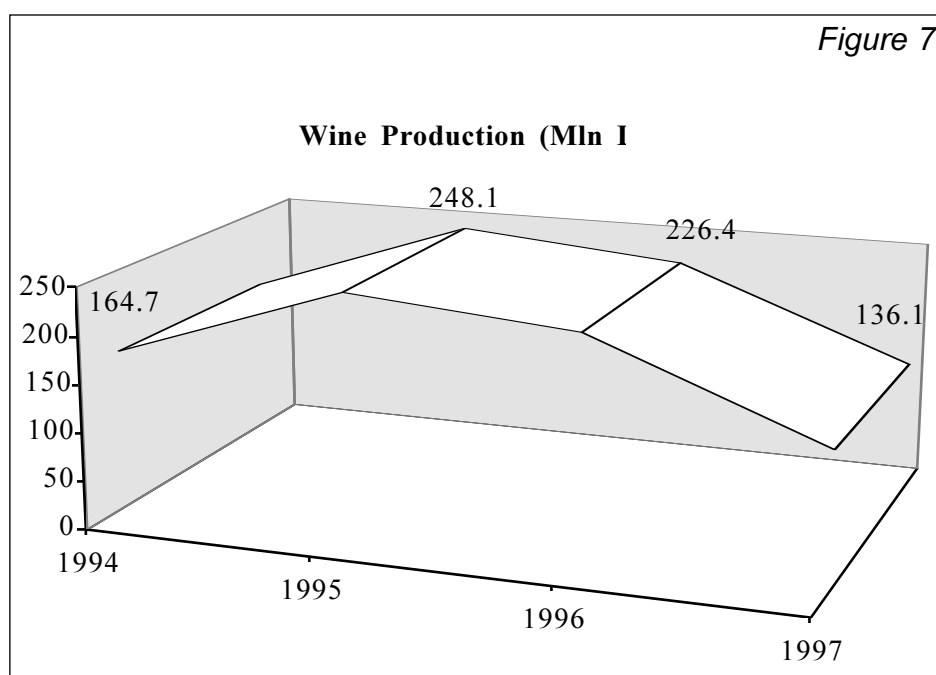


Table 6

Wine Production ('000 l)

Wine Brand	Produced in 1996	Marketing	
		Domestic	Export
White Wines High Quality	19903	7270	12633
Red Wines High Quality	34525	10347	24178
Table White Wines (incl. country and regional)	46830	13894	32936
Table Red Wines (incl. country and regional)	38329	16979	21350
Sparkling White Wines	8413	1810	6603
Sparkling Red Wines	180	161	19
Low alcoholic Wines	4372	1289	3083
Dessert Wines	652	31	621
Vermouths	4215	285	3930
Others	8705	1242	7463
Total*	166124	53308	112816
%	100	32%	68%

* Produced amount of wine in Suhindol LVK is not included.

with the producers (private and state enterprises) and supply markets or stipulate different contracts with the whole chain (from agriculture to packaging of final products), thus organizing and controlling the entire process (included transport), and supplying the final markets.

The marketing of the Bulgarian canning industry is at a very low level. There are a lot of obstacles in front of it. Almost nothing from the former foreign trade representative offices of "Bulgarplodexport" remains, and it is logical, given the need of big investment, to run these offices within the power only of centralized or developed economies. Diplomatic bodies don't contribute enough to advertising Bulgarian production abroad. Moreover, information about foreign markets, technologies, related industries etc. doesn't circulate within the country. On the other hand, the marketing preparation of the Bulgarian man-

agers is not so high and, in an international context, it is a serious problem. They rely on the exploitation of international contacts established in the past. Furthermore, the exploring of new markets and establishing new contacts is rendered difficult by visa problems.

Obtaining loans is one of the main obstacles that this industry faces. Credit security requirements render the supplying of fresh money almost impossible. Often, one who needs a credit falls into a vicious circle - in order to obtain a loan the subject must guarantee his solvency, depositing an amount of money equivalent or even higher with reference to the loan. This fact arouses a lot of "timidity" in the individual who has a good idea with which to start or continue a business. However, seldom does the individual asking for a loan present a convincing business plan, either because of inability to express the good idea or because the idea is not good. Thus, not only part of supply, but also

part of demand is rendered ineffective. Interest rates are hopeless. The mortgage mechanism has not yet started to function; thus, land ownership can't serve as a guarantee. Nevertheless, the canning industry may have the potential reserves in the near future to shift from the factor driven stage to the investment driven stage.

The Wine Industry

The wine industry is the most competitive sector of the Bulgarian food industry. It consists of 45 wineries and produces about 12% of the national food processing output. Bulgaria is a major international exporter of grape wines.

Major products of the wine industry are: bottled, broached and table wines - 23 varieties of white and red wine with registered trademarks of origin; 24 types of white and red wine from designated geographic regions; natural sparkling wines; wine distillates; grape must; high-alcohol beverages (brandy, cognac, vodka and sweetened spirits - vermouth, other aperitifs, anise-flavored brandy, mint alcohol, fruit liqueurs); vinegar; tartaric acid; grape concentrate; whisky.

There are wineries in every region of Bulgaria. The highest concentrations are in the Burgas, Plovdiv, Sliven, Haskovo, Stara Zagora and Pazardjik regions of southern Bulgaria, and the Veliko Tarnovo, Targovishte, Pleven, Vidin, Rousse, Shoumen and others regions in northern Bulgaria. The winery of the city of Sofia is specialized in conservation, bottling and marketing. In 1996, 226,404,000t of grape wine were produced, distributed by regions: Burgas - 35.7%, Lovetch - 23.7%, Plovdiv - 13.2%, Rousse - 8.6%, Varna - 8.2%, Haskovo - 7.9%.

The wine industry could be an example of how competitive advantage has been achieved, when founded on tradition, skill and favorable natural resources. Wine has traditionally been an important sub-sector of the food industry in Bulgaria and a key

Bulgarian export item. The wine industry in which production is 90% export-oriented has the greatest relative share in sector sales (about 1/3 of the total sales). The transformation process caused a deterioration of the wine sector, and the vineyards under cultivation have dropped from 130,000 ha. in 1990, to 94,000 ha. during last two years. As a result of the efforts to improve the conditions of the wine sector in the last few years, wine grape production in 1996 reached 518,700 tons - about 30 % more than the average 1993-1994 level. Nevertheless, production is still below the annual quantity of 600,000 tons in the 1970s and 80s. There are about 45 operating wineries which use between 40% to 80% of their capacity, and produce 12% of the total food processing output. The installed production capacities are capable of processing some 650,000 — 700,000t of grapes per annum; domestic demand is fully met and a considerable proportion is

exported. The principle technology base allows for the manufacture of products which meet all international standards and ensures a closed process cycle. After 1991, bottling line equipment has been mainly imported from Italy. The remaining part has been Bulgarian or imported, chiefly from Germany and France.

Nearly 33% of total wine industry output is routed to the domestic market. The remaining 67% is for export. Bulgaria is one of the major exporters of grape wines. In 1996, grape wine exports accounted for 183,365t, up by 6.54% against 1995.

Bulgaria has signed a special wine trade agreement with the EU. Under this agreement Bulgarian wines enjoy preferential duty treatment, with duties equaling 40% of the basic duty for imports to the EU. The position of Bulgarian wines in European Markets is significant — more than 50% of exported bottled and broached table

wines. The major importers of Bulgarian wines are the United Kingdom, Germany, Sweden, the Netherlands, Finland, Denmark, and Belgium. Sparkling wines are predominantly exported to the countries of Central and Eastern Europe — over 94% in 1997; broached wines are mainly sold to Germany. The major exporters of Bulgarian wine are the Bulgarian Vintners Company (BVC), Domaine Boyar, Wine of Westhorp, International Wine Services, and Wine and Spirits International. In 1996, grape wine exports were mainly to Great Britain — 25.4%, Germany — 8.3%, and the Netherlands — 7.1%.

According to Porter's model, the wine industry could be classified as an investment driven industry. In comparison with the canning industry, marketing is well developed, external market shares have been maintained by high quality and lower price, and there are no objective obstacles blocking access to information.

Table 7

Export of Bottled and Broached Wine

Countries	Quantity of Bottled Wine ('000 l)				Quantity of Broached Wine ('000 l)			
	1993	1994	1995	1996	1993	1994	1995	1996
Canada	1441	1077	1386	2530	0	0	0	0
Denmark	615	955	1829	2548	0	0	0	0
Finland	978	675	592	495	739	624	620	454
France	132	326	689	1528	1808	3274	7846	5704
Germany	2700	1281	3087	7720	12038	8731	10280	12077
Japan	0	0	0	0	3056	3023	7049	5343
The Netherlands	4551	5770	7301	8733	18	378	358	517
Norway	547	1559	2020	3473	99	621	1352	919
Poland	5198	3002	4259	6105	0	0	0	0
Sweden	1427	1477	1365	1334	1593	1723	1904	1555
Switzerland	0	0	0	0	532	1005	799	767
Ukraine	586	1480	6798	7787	64	312	991	686
Latvia	278	519	1174	2857	38	47	152	244
Lithuania	53	105	224	396	0	0	0	0
Kazakhstan	229	1314	1011	2266	0	0	0	0
Russia	13994	45198	43819	13756	1836	7960	10071	3398
Moldova	35	194	7470	30117	0	86	3487	8000
Gorgia	23	112	750	1388	38	10	315	679
United Kingdom	31093	28629	32463	37986	2851	3375	3123	2483
USA	737	631	710	1415	140	47	260	777
Others	3663	3442	3721	4368	643	2686	2929	2960
Total	68278	97746	120668	136802	25493	33902	51536	46563

Source: Ministry of Agriculture, Forests and Agrarian Reform, Association of Wine producers and traders.

Factor Conditions of Bulgarian Competitiveness

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This article examines the competitive position of the Bulgarian economy on the basis of the methodology proposed by M.Porter in his book The Competitive Advantage of Nations. It begins with a brief comparison of classical trade theories and Porter's competitive advantage theory, and then, using various statistical data, attempts to understand where Bulgaria stands in terms of factor conditions.

The Role of Factors in International Trade Theories

Classical economic theory attributes great importance to factors of production. Ever since Ricardo's works the fundamental concept of the analysis of international trade has been that of comparative advantage. The principle of comparative advantage asserts that a country will produce and export those goods in which it is relatively more efficient. E.Heckscher and B.Ohlin extended Ricardo's analysis by providing an explanation as to why productivity differed across countries. According to their theory, economies tend to export commodities that require intensive use of abundant factors for their production. In other words, trade flows are determined primarily by factor endowments.

A rather different approach to studying the patterns of trade was proposed by M.Porter. In his book The Competitive Advantage of Nations he maintains the view that factor endowments, although important, do not determine the competitive position of a nation. Moreover, the link between factors of production and trade is not as straight forward as presented by standard economic theory. In Porter's words, "...the stock of factors at any particular time is less important than the rate at which they are created, upgraded and made more specialized to particular industries" (M. Porter, "Competitive Advantage of Nations", MACMILLAN PRESS LTD. 1990., page 74). The crucial distinction here is the dynamic aspect of competitive advantage theory. Factors that contribute most to the successful performance of advanced economies are created rather than inherited. These findings have important policy implications. A country which is not well endowed with resources can still build competitive industries and achieve rapid growth provided it adopts appropriate policies that stimulate investments.

Another strong proposition in Porter's theory is that factors of production are not homogeneous, and in order to understand their role in competitiveness we must distinguish between basic and advanced factors as well as between generalized and specialized factors.

Bulgaria: Factor Conditions

Following Porter's classifications, some indicators rendering an idea of the supply and quality of some factors of production for Bulgaria are presented below.

Physical resources

Physical resources constitute a rather broad category including land, timber, mineral resources, geographical location and climate. These are factors inherited by a country and can have little to no influence. Table 1 shows Bulgaria's position regarding availability of arable land, meadows and pastures, and forests.

Bulgaria is relatively well endowed with arable land which is a precondition for more intensive plant-growing rather than livestock-raising and forestry. Indeed, in 1994, plant-growing accounted for 52% of total agricultural output in constant prices, but later in 1996 the percentage fell to 39%. To a large extent these variations result from the different climatic conditions of different years, but it is also true that the efficiency of plant-growing has declined substantially in recent years. For example, the average wheat crop per hectare in 1995 was about 2.5 times less than that in Germany and the UK, and about 1.5 times less than Hungary and the Czech Republic. This implies that there is considerable room for improvement in the performance of the agricultural sector by raising productivity of land resources. Clear property rights and less government intervention in pricing are necessary conditions to achieve better results in the agricultural sector.

Bulgaria is not considered to be very rich in mineral resources (Table 2). Over 100 different minerals and ores have been explored, but only a small share of these is economically significant. The deposits of kaolin, silica sand, barite, salt, perlite and clays

Use of Land in 1993

Table 1

	Thousand hectares	Percent of World's Arable land
	4310	0.30
Meadows and pastures	1811	0.05
Forests	3877	0.09

Source: NSI, *Statistical Yearbook 1996*

are substantial for the size of the country, but they have not been intensively exploited. Metal ores are available in relatively small quantities, but the quality in terms of pure metal content is low -- sometimes two to three times below the leading world producers. Although Bulgaria has huge deposits of some ores like manganese and wolfram, it is unable to take advantage of them because of technological and financial problems.

Bulgaria is very unfavorably positioned with respect to energy resources. The economy is strongly dependent on imports of oil and natural gas. Domestic production accounts for less than 1% of consumption. Though explorations of the shelf are still going on and there is a possibility of discovering oil, the gap between domestic and imported energy goods is unlikely to disappear in the near future.

International trade developments in recent years reveal a tendency towards a diminishing importance of mineral resources. This tendency comes as a result of technological advancement and increased efficiency of use. Contrary to global trends, Bulgaria has been increasing its reliance on resource intensive industries since the beginning of transition. In 1996, exports of chemical and metallurgical industries accounted for 37% of the total, whereas exports of machinery and electrical equipment shrunk to a modest 14.0% (compared to 57.7% in 1990). Given

declining world market prices of commodities with a high content of natural resources, Bulgaria will face serious terms of trade deterioration and current account problems.

Climate conditions and geographical location can only be assessed qualitatively. The qualities of these factors can be judged by the importance of tourism and transport services to the Bulgarian economy. A typical moderate continental climate with four distinct seasons, combined with mountains and a sea, is a prerequisite for the development of a strong tourist sector. Good examples of this are our

neighboring countries Greece and Turkey, which rely heavily on tourism as a source of income. The development of a highly competitive tourist industry would require huge investments not only of physical capital but also of knowledge and human capital.

Geographical location offers Bulgaria a good opportunity to gain from transportation, provided the proper infrastructure is in place. In a sense, location is a factor that can be upgraded by building roads and railways to reinforce natural endowments.

Capital resources

Measuring capital has proved to be a difficult issue. The concept of capital in economic theory is related to the idea of income creation. Two approaches to measurement of capital are possible. The first one concentrates on physical equipment, i.e., the asset side of the balance-sheet, while the second one refers to capital as money capital which makes a production process possible to occur, and accordingly appears on the liabil-

Estimated deposits and production of mineral resources as of end 1993

Table 2

	Estimated deposits (thousand tons)	Production (thousand tons)
Metal Ores		
Iron	204 000	864
Manganese	126 000	25
Wolfram	22 000	-
Lead&Zinc	124 000	2 346
Copper	830 000	18 135
Energy Resources		
Brown coal	348 000	4 362
Lignite coal	4 202 000	26 693
Oil	774	53
Gas (mln.m3)	2473	37
Other minerals		
Kaolin	200 000	694
Salt	4 400 000	1000
Borite	222 000	761
Lime	1 225 000	989

Source: USGS *International Minerals Information*, NSI, CGMR

Monetary Policy

Interest rates, end of month	08.97	09.97	10.97	11.97	12.97	01.98	02.98	03.98
<i>Nominal deposit rate*</i>								
monthly rate	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2
annual effective rate	2.8	3.0	3.1	3.0	3.0	3.0	2.9	2.8
cumulative from the beginning of respective year	55.0	55.4	55.8	56.1	56.5	0.3	0.5	0.7
<i>Real (CPI deflated) deposit rate*</i>								
monthly rate	-5.0	-3.2	-0.3	-0.3	-1.2	-1.7	-1.5	0.3
annual effective rate	-46.0	-32.5	-3.1	-3.3	-13.5	-18.9	-16.6	3.4
cumulative from the beginning of respective year	-75.7	-76.5	-76.6	-76.7	-76.9	-1.7	-3.2	-2.9
<i>Nominal lending rate**</i>								
monthly rate	0.9	1.0	0.9	1.0	1.1	1.2	1.1	1.1
annual effective rate	11.0	12.7	11.2	12.5	13.9	15.0	14.4	13.8
cumulative from the beginning of respective year	110.6	112.7	114.6	116.7	119.0	1.2	2.3	3.4
<i>Real (CPI deflated) lending rate**</i>								
monthly rate	-4.4	-2.5	0.4	0.5	-0.4	-0.8	-0.6	1.1
annual effective rate	-41.7	-26.1	4.5	5.5	-4.5	-9.3	-7.1	14.4
cumulative from the beginning of respective year	-67.0	-67.9	-67.7	-67.6	-67.7	-0.8	-1.4	-0.3
<i>Base central bank rate</i>								
simple annual rate	5.6	6.2	5.5	5.4	6.8	6.4	5.8	5.4
monthly rate	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.5
annual effective rate	5.8	6.3	5.6	5.6	7.0	6.6	5.9	5.5
cumulative from the beginning of respective year	96.5	97.5	98.4	99.3	100.5	0.5	1.0	1.5

* One-month time deposit rate, average for commercial banks.

** Short-term lending rate, average for commercial banks.

IME Publications:

Banking Sector Management Under Currency Board

(in English and Bulgarian)

Deregulation of Tax Systems in CEE Countries:

A Comparative Study of Poland, Slovakia and Bulgaria

(in English and Bulgarian)

Bulgaria: Selected Macroeconomic Indicators (monthly data)

Real sector

Output	08.97	09.97	10.97	11.97	12.97	01.98	02.98	03.98
<i>Receipts from sales of industrial output</i>								
% change over corresponding month of previous year, comparable prices								
(public sector)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
(private sector)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
total	6.3	2.0	-1.3	-2.1	3.5	-12.0	21.0	7.0
<i>Unemployment</i>								
<i>Registered unemployed, end of month</i>								
level, thousand	534.1	531.2	512.8	517.8	523.5	543.8	546.7	524.1
% change over previous month	-1.7	-0.5	-3.5	1.0	1.1	3.9	0.5	-4.1
% change over corresponding month of previous year	34.8	32.3	20.5	12.6	9.3	6.0	4.1	-5.7
<i>Unemployment rate, end of month*</i>								
% of total labour force	14.0	13.6	13.4	13.5	13.7	14.2	14.3	13.7
<i>Wages and Prices</i>								
<i>Average monthly wage in the public sector</i>								
nominal level, BGL	152046	171853	166390	174793	191007	173763	175366	190686
nominal growth, BGL								
% change over previous month	0.9	13.0	-3.2	5.1	9.3	-9.0	0.9	8.7
% change over corresponding month of previous year	1085.1	861.2	866.0	831.3	639.4	456.8	200.5	78.3
% change, cumulative from the beginning of respective year	1598.5	1819.7	1758.7	1852.6	2033.7	-	0.9	9.7
nominal level, USD	82.4	95.9	94.6	101.0	107.6	95.7	96.6	104.4
nominal growth, USD								
% change over previous month	-2.2	16.3	-1.4	6.8	6.6	-11.1	1.0	8.0
% change over corresponding month of previous year	23.2	20.5	23.2	52.5	92.1	114.2	295.2	62.0
% change, cumulative from the beginning of respective year	47.2	71.2	68.9	80.3	92.1	-	1.0	9.1
<i>real (CPI deflated) growth, BGL</i>								
% change over previous month	1.0	1.1	1.0	1.0	1.1	0.9	1.0	1.1
% change over corresponding month of previous year	-4.1	-10.9	4.0	9.3	8.6	15.3	109.6	40.0
% change, cumulative from the beginning of respective year	8.5	9.7	10.8	11.9	13.2	-	1.0	2.1
<i>Average monthly wage in industry</i>								
nominal level, BGL	193039	225775	216898	226574	254958	241537	240439	272012
real (CPI deflated) growth, BGL								
% change over previous month	1.0	1.1	1.0	1.0	1.1	0.9	1.0	1.1
% change over corresponding month of previous year	-3.0	1.5	-12.8	10.5	4.1	10.5	90.4	30.8
% change, cumulative from the beginning of respective year	8.4	9.6	10.7	11.8	13.1	-	1.0	2.1
real (PPI deflated) growth, BGL								
% change over previous month	1.0	1.1	0.9	1.0	1.1	0.9	1.0	1.1
% change over corresponding month of previous year	9.6	-10.6	13.6	-2.4	3.3	9.8	11.0	36.1
% change, cumulative from the beginning of respective year	8.4	9.7	10.7	11.8	13.1	-	1.0	2.1
<i>Producer prices in industry</i>								
% change over previous month	2.9	1.9	3.0	2.8	-1.3	0.9	1.8	-1.2
% change over corresponding month of previous year	1045.4	951.2	803.6	859.2	586.7	386.1	145.8	22.4
cumulative PPI, March 1992 = 1	69.6	70.9	73.0	75.0	74.0	74.7	76.0	75.1
% change, cumulative from the beginning of respective year	404.4	414.2	429.4	444.2	437.0	-	1.8	0.6
<i>Consumer prices</i>								
% change over previous month	5.5	3.6	0.5	0.5	1.5	2.0	1.7	-0.1
% change over corresponding month of previous year	1136.3	978.4	829.1	751.8	580.9	382.8	43.3	27.3
cumulative CPI, December 1990 = 1	1309.8	1357.0	1363.9	1371.1	1391.3	1418.8	1443.5	1442.8
% change, cumulative from the beginning of respective year	541.0	564.1	567.5	571.0	580.9	-	1.7	1.7

* Women on maternity leave not counted

External Sector

Gross Official Reserves*		08.97	09.97	10.97	11.97	12.97	01.98	02.98	03.98
level, mln USD, end of month		1733,7	2232,9	2372,8	2386,6	2483,5	2306,0	2504,5	2570,2
% change over previous month		11,6	28,8	6,3	0,6	4,1	-7,1	8,6	2,6
% change over corresponding month of previous year		216,4	374,1	383,9	387,0	379,4	505,9	514,5	363,7
Exchange Rates									
<i>Nominal</i>									
BGL per 1 USD, monthly average		1844.2	1791.9	1759.2	1731.1	1774.8	1815.7	1814.9	1826.7
% change over previous month		3.2	-2.8	-1.8	-1.6	2.5	2.3	0.0	0.7
% change over corresponding month of previous year		861.6	697.8	684.3	510.9	284.9	159.9	-24.0	10.0
% change, cumulative from the beginning of respective year		299.9	288.6	281.5	275.4	284.9		0.0	0.6
BGL per 1 USD, end of month		1809.0	1762.8	1719.0	1767.0	1776.5	1809.2	1820.2	1834.0
% change over previous month		-1.9	-2.6	-2.5	2.8	0.5	1.8	0.6	0.8
% change over corresponding month of previous year		795.6	666.5	617.4	405.1	264.5	77.0	-11.0	15.4
% change, cumulative from the beginning of respective year		271.2	261.7	252.7	262.6	264.5		0.6	1.4
<i>Real (CPI deflated)</i>									
BGL per 1 USD, monthly average									
% change over previous month		-2.2	-6.2	-2.3	-2.1	1.0	0.3	-1.8	0.7
% change over corresponding month of previous year		-22.2	-26.0	-15.6	-28.3	-43.5	-46.2	-47.0	-13.6
% change, cumulative from the beginning of respective year		-37.6	-41.5	-42.8	-44.1	-43.5		-1.8	-1.1
BGL per 1 USD, end of month									
% change over previous month		-7.0	-5.9	-3.0	2.3	-0.9	-0.1	-1.1	0.8
% change over corresponding month of previous year		-125.9	35.3	-2.7	-212.4	-80.7	242.4	-67.0	24.7
% change, cumulative from the beginning of respective year		-42.1	-45.5	-47.2	-46.0	-46.5		-1.1	-0.3
<i>Real (PPI deflated)</i>									
BGL per 1 USD, monthly average									
% change over previous month		0.3	-4.7	-4.6	-4.3	3.9	1.4	-1.8	1.9
% change over corresponding month of previous year		-16.0	-24.1	-13.2	-36.3	-44.0	-46.5	-69.1	-10.1
% change, cumulative from the beginning of respective year		-20.7	-24.4	-27.9	-31.0	-28.3		-1.8	0.0
BGL per 1 USD, end of month									
% change over previous month		-4.6	-4.4	-5.3	0.0	1.9	1.0	-1.2	2.0
% change over corresponding month of previous year		-21.8	-27.1	-20.6	-47.3	-46.9	-63.6	-63.8	-5.7
% change, cumulative from the beginning of respective year		-26.4	-29.7	-33.4	-33.4	-32.1		-1.2	0.8

* Monetary gold not included; SDRs and nondollar currencies converted into USD at their respective end-of-period exchange rates

Fiscal Policy - Consolidated State Budget

		08.97	09.97	10.97	11.97	12.97	01.98	02.98	03.98
<i>Revenues:</i>	bln BGL	2893.6	3490.9	4158.8	4742.6	5530.1	616.9	1274.8	1953.6
	% of GDP	17.0	20.5	24.5	27.9	32.5	2.6	5.5	8.4
<i>Expenditures:</i>	bln BGL	3278.9	3779.4	4245.5	4856.3	6056.1	654.9	1190.6	1613.1
	% of GDP	19.3	22.2	25.0	28.6	35.6	2.8	5.1	6.9
<i>Surplus (+)/Deficit(-):</i>	bln BGL	-385.3	-288.5	-86.7	-113.7	-526.0	-38.0	84.2	340.5
	% of GDP	2.3	1.7	0.5	0.7	3.1	-0.2	0.4	1.5
Foreign financing, net	bln BGL	178.3	163.7	127.2	82.8	0.3	-2.6	213.8	48.0
	% of budget deficit	46.3	56.7	146.7	72.8	0.1	-6.8	-253.9	-14.1
Domestic financing, net	bln BGL	207.0	124.8	-40.5	30.8	525.7	40.7	-298.0	-388.5
	% of budget deficit	53.7	43.3	-46.7	27.1	99.9	107.1	353.9	114.1
Securities financing	bln BGL	567.2	566.7	589.7	565.3	568.5	17.9	42.9	33.2
	% of budget deficit	147.2	196.4	680.2	497.2	108.1	47.1	-51.0	-9.8
Bank financing	bln BGL	29.6	29.6	256.9	403.7	523.9	-22.5	-28.8	-57.2
	% of budget deficit	7.7	10.3	296.3	355.1	99.6	-59.2	34.2	16.8



Monetary Policy

Broad money, end of month	08.97	09.97	10.97	11.97	12.97	01.98	02.98	03.98
level, bln BGL	5075.8	5124.2	5255.3	5477.6	6018.6	5882.9	5899.4	5957.9
currency outside banks	917.9	966.8	1014.2	1075.6	1314.1	1203.4	1243.7	1285.4
demand deposits	589.9	607.0	616.8	666.5	976.2	774.1	741.8	812.1
time and savings deposits	913.9	930.8	951.1	965.4	1031.8	1046.6	1066.5	1068.3
foreign currency deposits	2425.4	2394.4	2444.5	2493.6	2428.6	2598.3	2574.6	2439.8
% change over previous month	6.9	1.0	2.6	4.2	9.9	-2.3	0.3	1.0
currency outside banks	17.6	5.3	4.9	6.1	22.2	-8.4	3.4	3.4
demand deposits	15.5	2.9	1.6	8.1	46.5	-20.7	-4.2	9.5
time and savings deposits	6.8	1.8	2.2	1.5	6.9	1.4	1.9	0.2
foreign currency deposits	1.8	-1.3	2.1	2.0	-2.6	7.0	-0.9	-5.2
% change over corresponding month of previous year	522.7	520.0	520.3	439.0	359.3	191.6	71.2	93.3
currency outside banks	1005.9	1031.6	1082.9	941.2	938.8	841.6	482.8	384.0
demand deposits	898.5	960.7	945.2	837.4	785.8	610.2	338.4	316.2
time and savings deposits	174.3	184.5	172.4	170.6	153.0	149.4	139.3	104.1
foreign currency deposits	684.5	637.7	666.6	470.9	304.6	112.6	8.8	28.2
Domestic credit, end of month								
level, bln BGL	5320.4	5101.7	4962.4	5171.8	5136.5	5262.2	4898.8	4672.9
net claims on government	2200.9	1955.8	1705.4	1768.2	1641.6	1671.8	1290.4	1166.0
claims on nonfinancial public enterprises	1162.2	1159.2	1216.9	1231.8	1254.1	1276.4	1238.9	1128.0
claims on private sector	1957.3	1986.7	2026.6	2156.3	2240.9	2313.9	2369.5	2378.9
% change over previous month	-0.3	-4.1	-2.7	4.2	-0.7	2.4	-6.9	-4.6
net claims on government	-5.2	-11.1	-12.8	3.7	-7.2	1.8	-22.8	-9.6
claims on nonfinancial public enterprises	8.3	-0.3	5.0	1.2	1.8	1.8	-2.9	-9.0
claims on private sector	0.8	1.5	2.0	6.4	3.9	3.3	2.4	0.4
% change over corresponding month of previous year	367.8	322.3	305.9	224.0	157.5	48.9	-22.0	-2.1
net claims on government	366.6	295.4	246.6	168.0	99.6	19.3	-44.9	-39.5
claims on nonfinancial public enterprises	284.8	261.6	267.6	190.7	138.6	34.8	-30.4	-4.1
claims on private sector	438.2	405.7	407.4	320.4	246.7	95.1	9.7	42.7

ity side of the balance sheet. With regard to assets, the total book value of fixed tangible assets of the firms which submitted their financial statements to the National Statistical Institute at the end of 1995 was 733 629.5 mln. BGL (This number should be regarded as an underestimate since the last revaluation of assets took place in 1992).

For the purposes of this analysis the Fundist view shall be adopted and capital defined as money capital, or, resources available to finance industry. (This is M.Porter's approach as well.)

In the case of Bulgaria, savings to GDP ratio is very low -- 11% on average for the period 1992-1996. In comparison, in fast-growing economies this ratio is 30% or more. The low savings rate for Bulgaria is due mainly to the continuous fall in

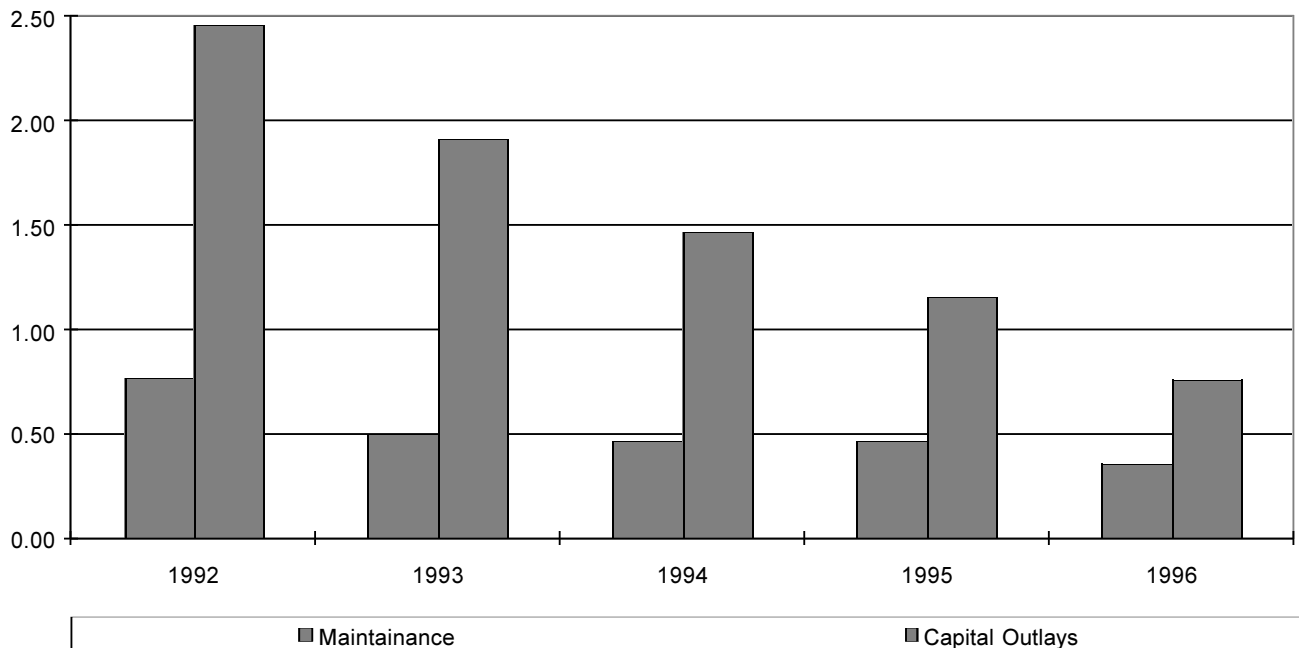
income combined with high and persistent inflation. The negative real interest rate and the limited choice of financial instruments also discouraged savings.

Capital may take various forms: equity capital, bank loans, bond issue, etc. Since the beginning of transition, the role of equity for Bulgarian non-financial enterprises has decreased to some extent and firms have relied increasingly on debt financing. However, the debt to assets ratio is still much below that of Western countries, which, according to some estimates, is more than 60%. For example, Rajan and Zingales (Rajan, R. and L. Zingales.1995. "What Do We Know about the capital structure? Some Evidence from International Data" Journal of Finance, vol. 50) report a ratio of 66% for the G7 countries, and for the Bulgarian state-owned enterprises,

which still constitute the greater part of the economy, the calculated mean value of this indicator for 1996 is 47% (Here and everywhere in the text we have used the book values since market values are not available in the case of Bulgaria). The high share of equity in firms' total liabilities in the case of Bulgaria has been inherited to a large extent from the pre-transition period when investment was very often financed with equity direct from the budget and did not pass through the banks. However, after 1991 the majority of state-owned enterprises turned primarily to the banking system to obtain financing, and those firms that were not profitable rapidly became over-indebted. The debt to asset ratio for some loss-making firms is greater than 100% (these firms have negative capital). Still, on the average, the present capital structure appears to

Graph 1

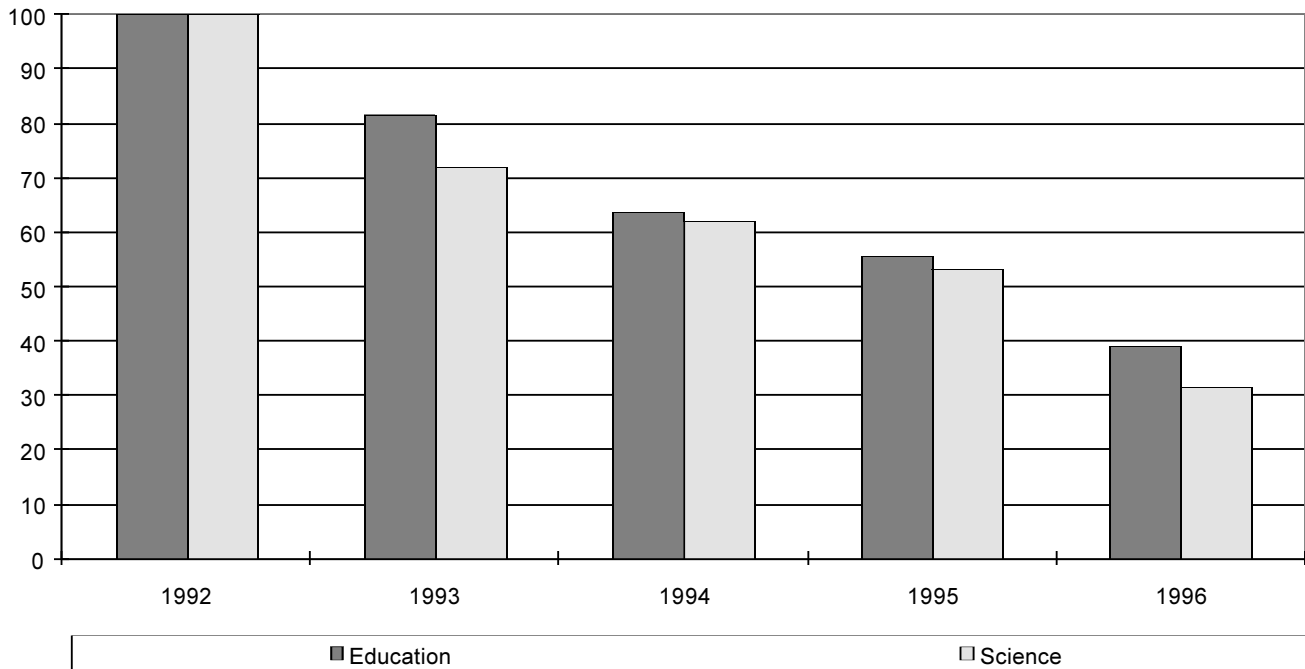
Government expenditures on infrastructure
(% of GDP)



Source: MF, NSI, Own calculations

Graph 1

Budget Expenditure on Science and Education
(constant prices, 1992=100)



Source: MF, NSI, Own calculations

be sub-optimal, at least if we compare it to that of developed countries. In order to achieve better leverage, firms should diversify between different sources of financing. Those enterprises that earn high profits are in a much better position since they have both internal resources in the form of undistributed profits and relatively easy access to external funds. The less profitable ones have to rely mostly on financing from outside. The important question is whether the capacity and performance of the Bulgarian financial sector are adequate for the needs of the economy. Banks continue to be the main source of money for enterprises, but after the crisis of 1996/1997 they have substantially reduced their lending activity. The stock market has just begun to function and domestic firms as a rule do not have access to international sources of financing.

Considering banks' reluctance to extend credits and the difficulty of borrowing directly from the domestic and foreign capital market, Bulgarian firms have very limited possibilities of raising funds. Moreover, market inefficiencies result in high transaction costs and increase the price of capital. Interest rates, although now considerably lower compared to previous periods, are not sufficient to induce credit expansion. On the demand side, businesses still seem either not to be finding attractive opportunities in which to invest or are unable to provide enough guarantees for their creditworthiness, and on the supply side, banks are overcautious and prefer to place their money abroad.

Clearly, given the low rate of savings and underdeveloped financial market, Bulgaria cannot be viewed as a capital abundant country. In an increasingly global economy, howev-

er, the domestic capital constraint becomes less important provided the country can attract foreign investment. So far, Bulgaria's performance in this respect has been unsatisfactory compared to the more advanced reformers in central and eastern Europe.

It is important to emphasize that unlike natural resources, capital is a factor that is created. In order for this process to be accelerated, appropriate policies encouraging savings and capital formation are essential.

Infrastructure

Infrastructure is closely related to competitiveness and economic growth. A country which wants to engage in international competition should invest heavily in improving local infrastructure so as to reduce the costs of doing business and

Distribution of scientists by field of research

Table 3

	1991	1992	1993	1994	1995	1996
Natural science	5272	5135	5227	5151	5121	5101
Engineering	10541	9339	8583	7743	7361	7421
Medical science	4917	4914	4796	4802	4729	4817
Agricultural science	1930	1662	1632	1649	1626	1653
Social sciences	6400	5548	6046	6271	6740	6861
Total	29060	26598	26284	25616	25577	25853

Source: NSI

encourage both domestic and foreign investment.

In this paper when speaking about infrastructure we shall refer only to physical infrastructure (roads, telephone lines, ports, airport, etc.), although in recent economic literature a broader definition is often being used, one that includes legislative and institutional frameworks as well.

Since the onset of transition all Bulgarian governments have neglected investing in, and even maintaining, infrastructure facilities. Capital outlays as percent of GDP dropped from 2.5% in 1992 to only 0.8% in

1996. Expenditure on maintenance has also been reduced dramatically. The funds directed to road maintenance in 1996 for example, were 75% less in real terms than those of 1992.

Huge budget deficits in the years prior to 1997 called for a sharp reduction of government expenditure. Since priority was given to the servicing of domestic and foreign debt, non-interest current and capital expenditure were continuously falling in real terms as a result of the efforts of the government to curtail the deficit.

In the second half of 1997, interest

rates dropped dramatically. This allowed for a substantial reduction of the deficit, and in the first two months of 1998 the overall budget balance stood at a surplus of about 200 bln. BGL. The favorable current fiscal position allows room for some increase in capital expenditure, but money, although essential, is not the sole answer to the infrastructure problem. Allocation and management of infrastructure projects are key issues that are often neglected. Under a currency board arrangement, budget resources available for investment are quite limited. A higher fiscal deficit could undermine economic stability and therefore, rebuilding the infrastructure would require alternative solutions that would not rely so much on funding from the budget. A good beginning would be to squeeze the maximum of the existing infrastructure by keeping it in good condition and utilizing it more efficiently. In other words, in the beginning, more resources should be devoted to maintenance and management rather than to new investment. The next step could be privati-

International comparison of indicators for R&D

Table 4

Country	Year	Scientists and engineers per million population	Technicians per million population	Year	Expenditure for R&D as % of GNP
Bulgaria	1995	1,587	873	1995	0.8
Austria	1993	1,631	814	1995	1.5
France	1994	2,584	2,874	1994	2.4
Germany	1993	2,843	1,472	1993	2.4
United Kingdom	1993	2,417	1,019	1993	2.2
United States	1993	3 732	0	1995	2.5
Czech Republic	1995	1,159	695	1995	1.2
Estonia	1995	2,018	470	1995	0.6
Hungary	1995	1,033	512	1995	0.8
Poland	1995	1,299	510	1995	0.7
Russian Federation	1995	3,520	688	1995	0.7
Japan	1994	6,309	828	1994	2.9
Korea, Republic of	1994	2,636	317	1994	2.8
Singapore	1995	2,728	353	1995	1.1

Source: UNESCO

zation of some parts of the infrastructure, notably the telecommunications and energy sectors, but there have been instances where commercialization has been extended to roads, bridges, etc.

In many developed countries a signif-

an effective competitor in the world marketplace.

Human resources and knowledge

Human resources and knowledge constitute the most valuable factor

based on out of date programmes, and computers and other technical facilities are either ancient or not available at all. Subscription for periodicals and purchases of new books by libraries has been reduced to a minimum. Although the number of students who pay for their education increased from 30% to 48% of total between 1993 and 1996, Bulgarian universities still rely strongly on financing from the budget, and available funds for education in 1996 were less than 40% of their 1992 level in real terms.

The differentiation between the different categories of spending is significant. Funds for scholarships, for example, decreased by 78% and expenses on research and books fell by an impressive 86% in real terms.

The average wage in education in 1996 was 33% less than the average for the country and 46% less than the average for the industry. The low level of wages demotivates the people involved in teaching and research, and many of them leave the country or move to other sectors where they receive better pay.

The financial situation of the scientific sector is similar or even worse than that of the educational sector. And science is closely related to knowledge resources. In Porter's definition, knowledge resources are comprised of the "nation's stock of scientific, technical and market knowledge bearing on goods and services. Knowledge resides in universities, government research institutes, private research facilities..." (M.Porter, op.cit. page 75).

How can we assess the stock of knowledge in Bulgaria? This question does not have a straight forward answer. Different indicators suggesting an idea of the current situation of R&D activities in the country are presented below.

At the end of 1996, the total number

Products of R&D and patents&licenses on SOEs balance-sheets

Table 5

	1991	1992	1993	1994	1995
Products of R&D in th. BGL	25274	127243	133530	167330	160138
in % of fixed assets	0.03	0.03	0.02	0.03	0.02
Patents, licenses in th. BGL	200697	225982	415710	568159	943675
in % of fixed assets	0.23	0.05	0.07	0.09	0.14

Source: NSI, Own calculations

icant part of infrastructure is delivered by the private sector. Since these activities are usually associated with low returns and high risks, additional incentives, like tax preferences, are provided in order to make them more attractive to private investors. Another possibility for raising funds for public investment may be to adapt the price of using the existing infrastructure in order to cover the cost of its operation. This solution is unpopular and politically difficult to take, but should be considered as an option in view of the poor condition of public services in Bulgaria. Large project financing can be obtained from international financial institutions such as the World Bank and the EBRD.

In recent years increasing attention has been paid to the information infrastructure, which involves the accumulation, processing and dissemination of data. High performance computing systems, advanced communications networks and software are essential to national competitiveness. Lack of vision and direction in this area could do a lot of harm to the economy. We must rebuild, improve and expand our infrastructure to allow Bulgaria to be

that plays a crucial role in the building up and sustaining of a competitive advantage. Standard economic theory focuses primarily on the cost of labor. One of the most frequently used indicators of competitiveness is the exchange rate adjusted for relative unit labor costs. If our analysis were confined only to this indicator, we would infer that Bulgaria, having one of the lowest wage rates in Europe, was a very competitive economy. However, this is not the case. Measuring competitiveness by only using the price of labor is oversimplified at best, and at worst, wrong. In today's world, what matters more is the quality of labor and its efficient use. Modern technology has created a greater demand for highly educated employees and a general workforce with greater technological knowledge and skills.

Since 1991, the number of undergraduate students has been increasing by approximately 10% per year; however, the number of Ph.D. students fell twice in the period of 1991-1996. The state universities have gained some autonomy and new private universities have emerged, but the quality of education has deteriorated. A great part of the teaching is

of the people engaged in science was 25,853 -- 11% less than in 1991. The distribution by field of research is shown in the table below.

Financial problems in the science sector hit R&D in engineering most severely. To the extent that engineering is most closely connected with industrial innovation, shrinking activity in this field may have an adverse impact on long-run economic development.

An international comparison may provide a better idea of Bulgaria's relative position in R&D. In terms of scientists and engineers per million of the population and expenditure for R&D as % of GDP, although Bulgaria is better positioned than most other central and east European countries, it is still far behind industrial ones.

There is another important difference between Bulgaria and developed economies. Much of the R&D activity in developed countries is concentrated in the private sector. In the US, for example, about two-thirds of total

R&D spending is financed by non-government organizations. Bulgarian firms still haven't recognized the advantages of investing in research and development. Products of R&D on state-owned enterprises' balance sheets increased only marginally compared to inflation between 1991 and 1994, and decreased in 1995.

Patents, licenses, concessions and trade marks grew faster in the period under consideration. This can be attributed to the opening of the economy and obtaining of licenses from western firms as well as to the registering of new trade marks. Unlike developed economies, in Bulgaria, the financial performance of firms is completely independent of their involvement in R&D. A cross section analysis using data from 1995 of about 10,000 enterprises showed that there is no statistically significant correlation between profitability and share of R&D products. This is illustrated in table 2.6 below. Leading export industries like metallurgy, oil processing and chemical production

have on the average a lower ratio of R&D to assets and patents&licenses to assets.

Where Does Bulgaria Stand?

This brief overview of Bulgaria's factor conditions allows us to formulate some conclusions and recommendations for economic policy.

Firstly, the over-reliance on exports based on intensive use of energy and mineral resources is not consistent with the country's natural endowments. What is perhaps more important, however, is that this is not the appropriate strategy for creating a dynamic competitive economy. At the same time, some basic factors like land, location and general labor force, which are available to the economy and of good quality, are not being deployed efficiently.

More efforts should be devoted to the creation of advanced factors -- a modern communications infrastructure and a highly educated labor force. Research and educational institutions must reassess and redefine their roles and objectives in view of the new circumstances. The limited resources imposed by budget constraints provide a strong need for restructuring these sectors. Government expenditure decisions have a significant impact on human resource development. More budget funds should be targeted to fundamental science, and furthermore, incentives should be created for firms to engage in R&D. Given the fact that teaching and research complement and reinforce each other, integration of research and education at all levels of academic activity is essential. The creation of advanced and highly specialized factors of production demands a large and sustained investment. Only through the creation and upgrading of such factors will Bulgaria's economy be able to achieve a sustainable competitive advantage and prosperity.

**R&D and patents&licenses
for the leading export industries, 1995**

Table 6

	R&D		Patents&licenses	
	th. BGL	% of fixed assets	th. BGL	% of fixed assets
Ferrous metallurgy	1213	0.003	5551	0.02
Oil-processing	1031	0.004	19046	0.08
Tobacco manufacturing	801	0.013	4243	0.07
Machinery production	33362	0.051	85034	0.13
Non-ferrous metallurgy	74	0.001	1532	0.02
Production of fertilizers	3163	0.034	30325	0.33
Production of wines	0	0.000	2187	0.06
Production of electrical equipment	13660	0.059	80955	0.35
Production of organic chemicals	95	0.006	217	0.01
Production of apparel and clothing	783	0.023	5341	0.16

Source: NSI, Own calculations