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21/GS/E

The Economy

# Yugoslavia

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NATIONAL INTELLIGENCE SURVEY

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# YUGOSLAVIA

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# he Economy



Metallurgical complex at Zenica

## A. Basic characteristics and trends

Yugoslavia's economy is characterized by substantial decentralization, striking differences in regional levels of development, and a chronic tendency toward economic instability. All of these elements have become steadily more pronounced in the postwar period and particularly since 1960. A string of reforms has transferred much federal economic power to banks, enterprises, and lower levels of government. Regional disparities have grown despite efforts to spur the expansion of backward areas. And the economy experienced three major bouts with inflation and balance-of-payments problems during 1961-71.

Under Tito, the economic system has moved well away from its brief interlude with the Soviet styled economy during 1945-50. The current system is a

mixture of market forces, noncompulsory planning, the participation of workers in enterprise management, and social ownership of capital. Decisions on incomes, output, investment, and foreign trade are left largely in the hands of banks and enterprises. In its attempts to manipulate the economy, the federal government tries to rely almost exclusively on indirect monetary policy to affect prices, imports, investment, and consumption.

In practice, the government has had to play more than an indirect role in the economy. The decentralized system, operating largely under market forces, tends to favor the more efficient northern republics, leaving the less developed south further behind. To improve chances for development in the south, the federal government has acted as a clearing house to siphon large funds from the have to the have-not regions. Even so, the gap has widened, between 1947 and 1970 per capita national income in the

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south—Bosnia and Hercegovina (Bosna: Hercegovina), Montenegro (Crna Gora), Macedonia (Makedonija), and the province of Kosovo—has fallen from 57% to 43% of that in the most advanced republics—Croatia (Hrvatska) and Slovenia (Slovenija). More striking, per capita income in the richest republic, Slovenia, is now 5.5 times that of the least developed area, Kosovo; in 1947, Slovenia's income was only 3.3 times larger. Serbia (Serbija) and the province of Vojvodina have remained at about the Yugoslav average during the postwar period.

Besides attempting to balance regional levels of development, the government periodically has intervened to combat inflation and severe balance of payments crises. These problems have reflected distortions in output—inefficient industries, mainly in the south, that require large imports and yield few exports. Then too, decentralization in the 1960's has made the economy increasingly hard to control, especially because the government has been unwilling to settle for moderate rates of growth. The boom in 1970-71 generated annual rates of growth of 12% in industrial output, 16% in the cost of living, and 48% in hard currency imports. The trade deficit reached record levels—US\$1.2 billion in 1970 and \$1.4 billion in 1971.

Such crises have made for very uneven economic growth, and Yugoslavia has not caught up with other European countries. Average per capita gross national product (GNP) in terms of U.S. purchasing power was about \$1,020 in 1971 (at 1970 prices), almost as high

as those of Greece and Romania, but well behind the levels achieved by other Western and Eastern European countries. Slovenia's per capita GNP, however, is about \$1,700; higher than Hungary's and roughly on a par with Austria's.

Although it will continue to struggle with various structural and regional problems, Yugoslavia has considerable prospects for further development. For its size, the country has an exceptional variety of basic resources—especially lumber, copper, lead, zinc, bauxite, low-grade coal, and a substantial hydroelectric power potential. Major gaps in industrial supplies are iron ore, hard coal, crude oil, cement, pig iron, and rolled steel. Agricultural output generally meets all requirements, save for vegetable oils, cotton, and often wheat. Exports of fresh and processed food partially offset large imports of industrial materials and machinery from the West. Yugoslavia's strategic supply position is given in Figure 1.

Most trade turnover—about 60% in 1971—has been with the industrial West. Communist countries—accounting for 29% of total turnover in 1971—are the main outlet for Yugoslav exports of industrial products such as steel, chemicals, machinery and transport equipment, and consumer manufactures. Trade with the less developed countries, 11% of the total in 1971, has remained of minor importance, in spite of Yugoslav efforts to extend credits and otherwise expand trade.

FIGURE 1. Strategic supply position, 1970  
(Thousands of metric tons except as noted)

	PRODUCTION	IMPORTS	EXPORTS	APPARENT CONSUMPTION*	PRODUCTION AS PERCENT OF CONSUMPTION
Electric power (million kilowatt-hours).....	26,023	317	70	26,270	99
Hard coal.....	643	1,820	2	2,461	26
Brown coal and lignite.....	27,779	0	165	27,614	101
Metallurgical coke.....	1,309	201	132	1,377	95
Crude oil.....	2,854	4,466	77	7,243	39
Petroleum products.....	6,517	1,077	519	7,075	92
Iron ore.....	3,694	212	179	3,727	99
Rolled and drawn steel products.....	2,278	1,185	314	3,149	72
Refined copper.....	89	29	27	110	98
Refined lead.....	97	5	48	54	180
Refined and powdered zinc.....	65	4	24	45	144
Cement.....	4,399	1,643	29	6,013	73
Wheat.....	3,790	14	4	3,800	100
Corn.....	6,933	1	287	6,647	104
Cotton, ginned (metric tons).....	11,966	69,646	0	81,612	15

\*Production plus imports less exports, no allowance being made for changes in stock.



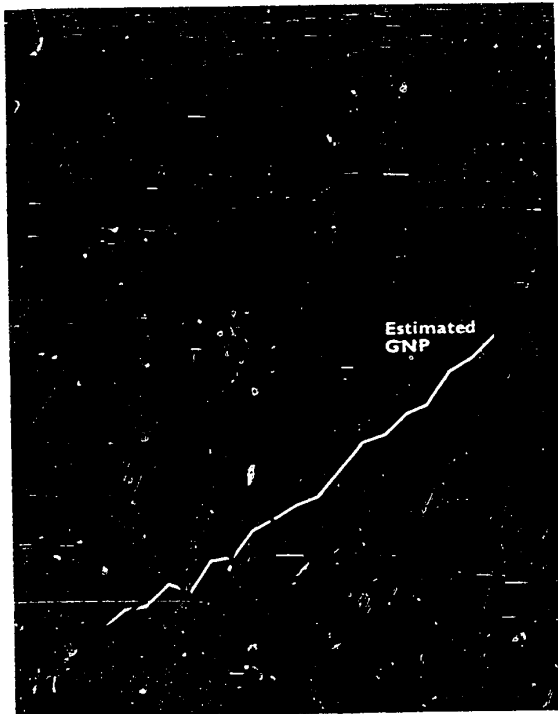


FIGURE 2. Growth of GNP, industrial production, and agricultural production

### 1. Growth and structure

GNP has tripled since the early 1950's. Most of the growth has taken place in the industrial sector, where output expanded by more than six times between 1952 and 1970 (Figure 2). Agricultural output during 1966-70, which was 84% above the average for 1950-55, reflected frequent setbacks caused by weather disturbances. The slow overall growth of agriculture, together with general recessions in 1961 and 1967, has kept Yugoslavia's growth in the 1960's to about that of most Western European countries.

Industrial output accounted for over 40% of Yugoslav GNP in 1970, compared with less than 25% in the early 1950's. The fastest growth has been in heavy industry, especially chemicals, petroleum, electric power, ferrous metals, metalworking, and electrical equipment, which received about 60% of industrial investment in the 1960's. Sizable investments also have been made in light industry, but, except for paper and food processing, output of most consumer goods has grown by far less than the average for all industry during the postwar period. Industrial employment has increased from 560,000 in

1952 to almost 1.5 million in 1970, and output per worker more than doubled during the same period, rising at an average annual rate of 4%.

Despite the rise in productivity and large injections of imported Western technology, the range and efficiency of industrial output remain low by European standards. As in other less developed countries, the expansion of the newer industries—steel, chemicals, machine building—was designed to reduce import requirements. Instead, the growth of these industries has, in many instances, increased the need for imports of higher quality Western materials, as well as capital equipment. Moreover, most of the exports generated by these sectors have gone into the soft currency area, primarily to the U.S.S.R. and Eastern Europe. In addition to contributing to balance of payments pressures, the pattern of industrial growth has given rise to demands for import protection and subsidies, hindering the progress of economic decentralization.

Industrialization has been accompanied by a rapid development of transportation and domestic wholesale and retail trade, all of which have steadily increased their relative shares of GNP. The lowest rates of growth have been in the services sector, which contributes about one-fifth to GNP. Government services have grown particularly slowly during the 1960's. Government employment—99,800 in 1970—has rebounded from a low of 89,500 in 1967 but still is 20% below the high of 124,000 in 1961.

Agricultural production fell from 30% of GNP in the early 1950's to about 20% in 1970. The agricultural labor force—4.7 million people—accounted for 49% of the total labor force in 1970 compared with 70% in 1950. This decline, however, has not been at the expense of output; agriculture, including food processing and the beverage and tobacco industries, has provided a steady boost in the Yugoslav level of living and still accounts for about one-fifth of total exports.

The structure of GNP by end use (Figure 3) has changed only slowly since the mid-1950's. Government spending has declined, reflecting the decentralizing reforms since the mid-1960's and reductions in the share of defense expenditures. Gross fixed investment rose during the boom in the early 1960's, but declined in the last half of the decade. Additions to inventories averaged 7% of GNP in 1965-69, ranging from a high of 12% in 1966 to only 3% in 1968—the beginning of the 1969-71 boom. Total investment, including additions to inventories, amounted to 34% in the last half of the 1960's, down from 37% in the first half of the decade and equal to the share in 1955-59. Net

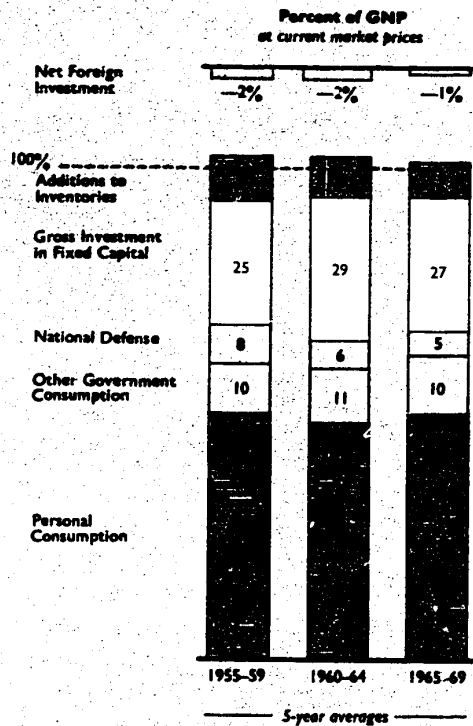


FIGURE 3. Distribution of GNP, by end use

foreign investment—the excess of imports over exports of goods and services—has represented an average of less than 2% of GNP since the mid-1950's. Most foreign assistance has supported investment, mainly by financing imports of machinery and equipment. Assistance to support personal consumption has largely been confined to fairly small credits from the U.S. Commodity Credit Corporation; the large U.S. agricultural deliveries under P.L. 480 were terminated in 1966.

Personal consumption has been the only component of GNP to increase its share since the early 1960's. Food consumption, in calories per capita, rose by about 12% during 1955 to 1969, and the share coming from animal origin—20%—has increased. Most qualitative improvements in the diet have come from increased consumption of sugar, oils, fats, and eggs, rather than meat. The stock of housing has grown by about 50% between 1950 and 1970, but shortages and overcrowding in cities still persist. The largest gains have come from the increasing supply and assortment

of industrial consumer goods—clothing and footwear, beverages, tobacco products, packaged foods, home appliances, radios, television sets, and automobiles; the number of passenger cars registered in 1971 (over 700,000) was double the number in 1968.

## 2. Organization and policy

After Yugoslavia's ouster from the Cominform in 1948, the leadership began gradually to dismantle the Soviet-styled system and to decentralize economic decisionmaking. During 1950-55, workers' management councils were set up in enterprises, agricultural collectivization was abandoned, the economic ministries and the state monopoly over foreign trade were dissolved, obligatory state plans were replaced by far less detailed "indicative planning," and state financing of investments was reduced.

A series of major reforms (in 1961, 1965, 1967, and 1971) has transferred much of the direct federal role in the economy to enterprises, banks, and local and republic governments. Federal authorities still are charged with insuring a unified and stable market, providing for defense, and guaranteeing the transfer of investment funds to the less developed regions. Republic governments have taken over the federal extrabudgetary accounts, including a number of major investment projects. These governments also have acquired a substantial role in formulating and executing national economic policy.

The federal government—in spite of internal criticism—has chosen to control the economy almost exclusively through a combination of monetary-credit policy and emergency price and import measures, rather than by adding countercyclical fiscal policies to its economic arsenal. Now, with greater decentralization, the federal government has little choice but to restrict its policy mix. Moreover, the effectiveness of national policy in the future will depend heavily on securing regional agreement or compromise—which is not often easy to achieve, especially in time to respond quickly to economic problems.

Private handicrafts and personal services—such as shoe repair, beauty parlors, and guest rooms—are not only tolerated but even promoted at times, particularly because of the increased earnings from tourism. Pressure on farmers in the private agricultural sector to join producer cooperatives or otherwise receive planting and harvesting assistance from the socialized sector seems to have decreased. Both the number of farms and acreage involved in cooperation arrangements between private and socialized agriculture have fallen since 1965.

Enterprises in the socialized sector are managed by workers councils elected by the employees. Where they operate effectively, workers councils formulate overall enterprise policy and approve major production, investment, and wage decisions. Day-to-day operations are controlled by a management board (elected by the workers council and the local government). In practice, the roles played by the director, workers council, local government, and local Communist party unit vary from firm to firm.

The most dramatic organizational change in recent years has been the increase in the role of banks. In 1962 banks accounted for only 3% of investment funds, and in 1970, 51%. The expansion began in 1963-64 when banks gained control over the substantial "social investment funds" of republics and the federal government. Furthermore, local political influence on the banks was reduced by allowing enterprises to found banks and by limiting commune government representation on bank management boards. The banks provide a facsimile of a capital market, although the immobility of funds due to regional and local self-interest is still a problem.

A major reform is a market for foreign exchange, scheduled to be in operation in 1973. The market is of particular interest to the Croats, who have long denounced the administrative reallocation of their large export and tourist earnings. Under the old system some 10% of foreign exchange earnings was retained by enterprises; the remainder was surrendered to the national bank which normally redistributed it in favor of less developed regions. Now an average of 20% (and for the tourist industry, 45%) of foreign exchange will be retained, and most of the rest will be sold by banks on the open market at rates subject to ceiling and floor limits. Provisions still will be made to supplement the meager export earnings of less developed areas.

National economic planning amounts largely to a forecast of economic trends and government objectives—to give enterprises an idea of what to expect in the market and to provide a formal outline of major tasks to be carried out by the government and the party. Although both annual and medium-term (5-year) plans are published, neither plan is binding on enterprises and neither is necessarily consistent with plans drawn up by enterprises or even republics.

Yugoslav planning, or forecasting, has often been at variance with actual results. In fact, backtracking on national objectives has often been necessary, because the achievement of planned high rates of growth brought inflation and balance of payments problems. During the inflationary boom of 1970-71, for example, the government resorted to a freeze on all prices,

selective credit controls on imports, investment, and consumer durables, and two devaluations of the dinar. No effective controls, however, were put on wage increases, such controls being strongly opposed by trade unions. In short, the Yugoslav Government still is searching for the right mixture of decentralization and market controls that would provide structural improvements for greater economic stability and growth.

## B. Sectors of the economy

### 1. Agriculture, fisheries, and forestry

Output in agriculture has grown considerably since World War II, but weather conditions continue to cause large year-to-year fluctuations in crop yields. Most agricultural land (Figure 4) is still farmed in highly fragmented parcels by private farmers using little modern machinery. The government has tried to stimulate output by allowing large price increases—agricultural producers' prices in 1970 were more than three times higher than in 1960. Moreover, irrigation, improvements in new seeds, increased use of fertilizers, and greater mechanization, particularly in the large-scale socialized combines, have all helped to make agriculture somewhat less vulnerable to fluctuations in growing conditions. In good years, the sector is largely self-sufficient, permitting significant exports of livestock, meat, corn, wine, and tobacco. In years of poor weather, large imports of such staples as wheat, rice, and oils still are necessary, in addition to coffee, sugar, fruit, wool, and cotton, which normally must be imported.

Year-to-year fluctuations in output were noticeably smaller in the 1960's than in the 1950's (Figure 2). The annual average variation in output in the 1960's was less than 6% compared with 28% in the 1950's. Agricultural output in 1966-70 was 16% higher than in 1961-65 and 35% above 1956-60—among East European countries only Bulgaria did as well.

During the decade of the 1960's, the mix of agricultural inputs has been altered somewhat. The stock of farm machinery has increased rapidly, particularly since 1965. On the other hand, the 1970 agricultural labor force (4.6 million) was 5% smaller than in 1960. During the same period the tractor inventories expanded from 31,700 to more than 67,000, while the number of combines increased from 3,100 units to 11,860. More significant than the pace of mechanization has been the 140% increase in fertilizer use since 1961. Even with this increase, however, Yugoslavia has been outdistanced by other

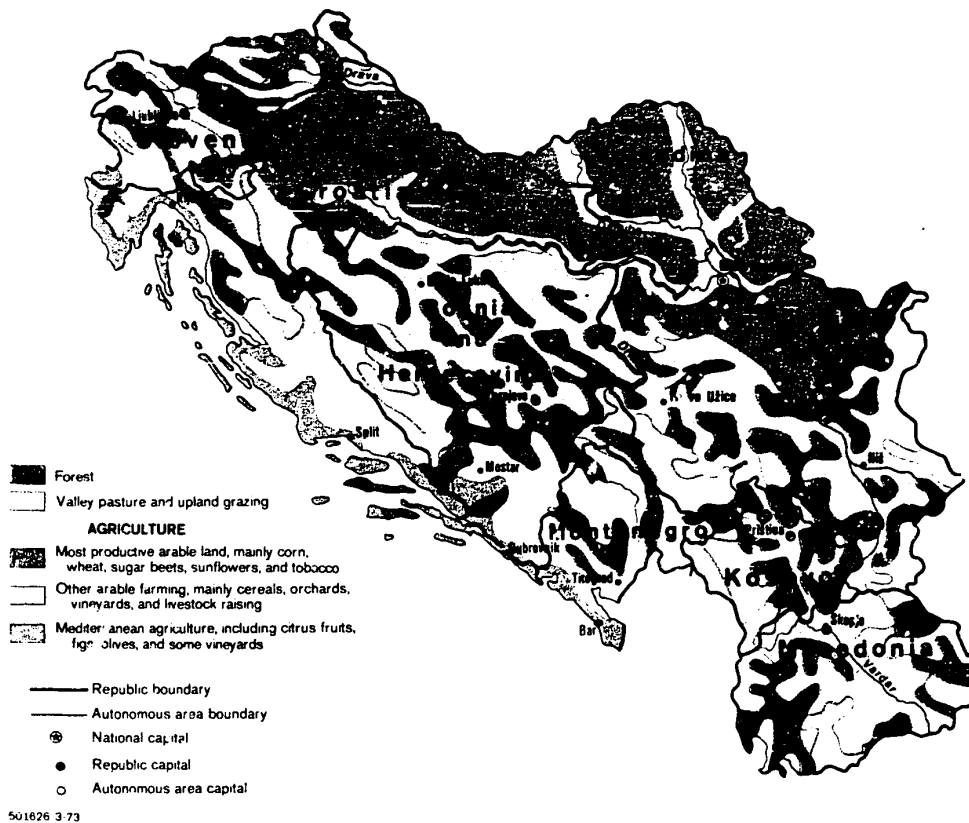


FIGURE 4. Land utilization

East European countries in fertilizer consumption. In 1961, the Yugoslav use of chemical fertilizer (NPK) per hectare (1 hectare = 2.471 acres) was equal to or greater than that of Romania, Bulgaria, and Hungary. By 1970, Yugoslavia, using 77 kilograms per hectare of arable land, was still ahead of Romania (56 kg.) but had fallen well behind Hungary (149 kg.), and Bulgaria (140 kg.).

Most of the postwar gains in agricultural production have come from the socialized sector which more than doubled its output during the 1960's. Private production has barely increased since the late 1950's; in fact, the peak output of 1969 was only 2% above the high for the 1950's. Private holdings have declined from over 90% of all arable land in the 1950's to 85% in 1970. Moreover, output and productivity have suffered from fragmentation of individual holdings, low per-hectare fertilizer application, and backward farming techniques.

With minor exceptions, private farms are limited by law to 10 hectares (about 25 acres); the average size is less than 4 hectares as a result of land reforms and the

repeated division of land among heirs. Rising producers' prices, particularly since the economic reform of 1965, have given peasants more incentive to use fertilizers to increase output, but on a per hectare basis the private sector still applies less than half that of the socialist sector. Similarly, a lower density of machinery is found in the private sector. According to the 1960 census, there were only 5,080 tractors for the 9.2 million hectares in private holdings, compared with 30,700 tractors for the 1 million hectares in the socialized cultivation sector. The census of 1969, however, showed a sharp increase to 39,000 private tractors, reflecting increased availability of small, low powered, garden-type tractors which are suitable for use on small farms. At the same time, the number of tractors on socialized holdings dropped to 27,800 as obsolete machines were retired to make way for larger machines.

The socialist sector comprises three main types of holdings: agricultural combines and state farms, agricultural cooperatives, and miscellaneous organizations, such as research institutes, specialized schools,

and experimental facilities. The number of socialist organizations reached a high of more than 9,000 in 1954—the last year of forced collectivization. Since then, many socialized organizations have been either dissolved or consolidated into larger units so that by 1970 only 1,929 organizations remained. The most important of these are the 270 state farms and combines, which in 1970 held over 60% of the land in socialist holdings.

Organized like most industrial firms on the basis of workers' self-management, the state farms and combines are large economic units; the 71 largest enterprises owned nearly 45% of socialist acreage in 1970. The size of the state farms and combines, coupled with their up-to-date technology, makes them the heart of the food export industry. Many of the firms are engaged in a broad range of economic activity, some far removed from the production of agricultural products. For instance, the Belgrade Agricultural Combine is a giant holding company—now Yugoslavia's 11th largest enterprise—with operations in allied fields such as food processing, hotel and catering services, and even hotel construction.

Agricultural cooperatives account for some 60% of the organizations in the socialist sector and own about one-third of socialist agricultural lands. These organizations are the main vehicle in transmitting modern technology to private farmers. Private farmers can participate in the cooperatives without forfeiting ownership of their lands. Cooperatives provide financial incentives, such as short-term credits for seeds and fertilizer, and they contract to purchase private output of food and industrial crops. Private farmers, in turn, are expected to follow the cooperatives' technical instructions on how to plow the land, when to plant the crop, and how much fertilizer to use. Members of cooperatives receive other material advantages, i.e., social insurance benefits, for which most private landowners are ineligible. Unlike the case in other socialist countries, the Soviet-styled collective farm is not an important part of the agricultural scene. In fact, the Yugoslav equivalent—the peasant work cooperative—has all but disappeared.

Nearly 60% of the total land area can be used for agricultural purposes, and about half of this area is cultivated. The most productive land is in the Vojvodina—the fertile area along the Danube in northern Serbia. Grain, mainly corn (Figure 5) and wheat, covers two-thirds of the total cultivated area; fodder crops such as alfalfa and clover make up about 11% of the area, and the remainder is divided between

vegetables (notably potatoes) and industrial crops (mainly sugar beets, sunflowers, and tobacco). Almost 5% of the agricultural land is in vineyards and orchards. The following tabulation shows a percentage breakdown of land use and crop distribution in 1970:

PROPORTION OF TOTAL AREA (25.6 million hectares)	
Agricultural land .....	57.4
Of which:	
Cultivated land .....	29.3
Orchards and vineyards .....	2.8
Meadows and pastures .....	25.1
Forest land .....	33.8
Other (nonagricultural use) .....	8.8
<b>Total .....</b>	<b>100.0</b>
CROP DISTRIBUTION IN CULTIVATED AREA (7.5 million hectares)	
Grain .....	65.8
Of which:	
Wheat .....	24.7
Corn .....	31.6
Fodder .....	10.9
Vegetables .....	8.5
Industrial crops .....	5.5
Fallow .....	9.3
<b>Total .....</b>	<b>100.0</b>

Yugoslavia produced 11.6 million metric tons of grain in 1970, compared with an average of 12.9 million tons during 1966-70 and 8.1 million tons in 1939. Corn output in 1970 amounted to 6.9 million tons; Yugoslavia's production is normally exceeded only by that of the Soviet Union among European producers, although in some years Romania has been the second ranking corn producer. One of Yugoslavia's long-term agricultural goals has been to develop self-sufficiency in wheat production. During 1961-65, wheat imports averaged 950,000 tons. The excellent 1966 and 1967 harvests—4.6 million and 4.8 million tons, respectively—permitted imports to decline from 1.4 million tons in 1966 to only 79,000 tons in 1968. The record 1969 harvest was so bountiful that imports of wheat were insignificant in 1969-70. The production of wheat is still not "weather proof," however, as the small harvest of 3.8 million tons in 1970 proved. Production of potatoes has nearly doubled since 1939, and larger increases above prewar levels have been recorded for sugar beets, sunflower seeds, and tobacco (Figure 6). Except for sunflowers, tobacco, and legumes, for which the acreage has been expanded considerably in the postwar period, the increase in crop production has resulted primarily from higher yields. Production of fruit, mainly grapes



FIGURE 5. Yugoslavia is one of the leading European producers of corn. Although the extensive use of modern machinery is not typical of Yugoslav agriculture, mechanization has increased, particularly in the large socialist combines, which dominate the production of grain; labor-intensive cash crops like vegetables and tobacco are almost exclusively produced in the private sector.

and plums, has sustained the large output and export of wines and brandies. In good years, significant amounts of fresh fruit are exported as well. Fruit is highly vulnerable to weather disturbances, however, and, consequently, has a very uneven growth pattern.

Meadows and pastures, which cover about one-fourth of the total land area, support a livestock industry that accounts for almost one-tenth of the value of exports and has provided steadily increasing amounts of meat for domestic consumption. In response to growing domestic demand, hog and poultry numbers have increased considerably since the early 1950's. Poultry numbers increased by 28% during 1966-70, while the rise in hog numbers was about 22% during the same period. Cattle numbers have changed little, but the quality of Yugoslav beef has improved enough to permit substantial exports of fresh meat and meat products. Exports of live animals and meats during 1966-70 reached an annual level of about US\$160 million, most of which represented exports to Western countries.

The number of sheep in 1970 was almost 20% below that in 1962, a record 11.1 million. The resulting

increase in wool imports induced the regime in 1970 to institute guaranteed prices for domestic wool for the first time. This action may slow further decline in sheep numbers, but the measure has the disadvantage of subsidizing a relatively costly and low quality livestock operation. The number of horses, still an important source of power, especially on private farms, has declined by only 16% in the period 1939 to 1970. Milk production has leveled off since the early 1960's (Figure 7), but efforts are being made to upgrade dairy herds through artificial insemination. Milk output per cow, estimated at 1,136 liters yearly in 1969, is still one of the lowest in Europe.

The Yugoslav diet compares favorably with those of other European countries in terms of total calories consumed per capita but is deficient in animal protein, fresh fruits, and vegetables. The food mix is similar to that in Bulgaria and Romania and other countries of southern Europe. Starchy foods account for approximately 58% of caloric intake; sugar, 8.4%; fruits and vegetables, 7.1%; meat, fish, and dairy products, 14.4%; and fats and oils, 12.2%. The main

FIGURE 6. Production and yields of principal crops  
(Production in thousands of metric tons; yields in quintals per hectare)

	1939	AVERAGE 1956-60	AVERAGE 1961-65	AVERAGE 1966-70	1970
<b>Production:</b>					
Total grain.....	8,070	8,562	10,339	12,896	11,612
Of which:					
Wheat.....	2,910	2,742	3,590	4,490	3,790
Rye.....	244	251	169	149	127
Corn.....	4,070	4,710	5,616	7,348	6,933
Barley.....	424	477	557	526	402
Oats.....	348	350	343	332	309
Potatoes.....	1,540	2,830	2,708	3,007	2,964
Sugar beets.....	922	1,870	2,344	3,440	2,948
Sunflower seeds.....	27	89	206	299	264
Tobacco.....	16	41	43	49	49
Hemp.....	342	247	279	166	106
Plums.....	1,223	546	788	867	896
<b>Yields:</b>					
Wheat.....	13.1	14.0	17.9	23.5	20.7
Rye.....	9.4	9.9	10.4	11.5	11.3
Corn.....	15.1	18.6	22.7	30.1	29.5
Barley.....	10.2	12.7	15.1	16.0	14.4
Oats.....	9.8	9.8	10.7	11.3	10.9
Potatoes.....	54.0	99.0	86.0	90.0	90.0
Sugar beets.....	200.0	241.0	279.0	368.0	346.0
Sunflower seeds.....	14.3	11.4	16.3	17.2	13.6
Tobacco.....	10.3	8.7	8.6	8.7	9.1
Hemp.....	69.0	46.0	60.8	57.6	59.0

improvements in the diet since the mid-1950's have been a 15% drop in the consumption of cereals, a doubling of sugar consumption, and a 38% rise in the intake of fats and oils. The share of animal products in the caloric value of the diet—about 20% in 1969—has increased slightly since the 1950's.

Fishing is of minor importance in the economy. About 46,000 metric tons of fish were landed in 1970—almost 25% above the average in 1961-65 but still one of the smallest catches in Europe. Fresh water provides 40% of the catch, and the rest comes from Adriatic fishing grounds. Croatia, which has nearly all

FIGURE 7. Livestock numbers and output of animal products

NUMBER OF LIVESTOCK 15 JANUARY	1939	AVERAGE 1950-53	AVERAGE 1960-63	AVERAGE 1966-69	1970
<i>Thousands</i>					
Cattle.....	4,332	4,957	5,560	5,562	5,029
Hogs.....	3,564	4,184	5,550	5,400	5,544
Sheep.....	10,282	10,562	10,868	10,068	8,974
Poultry.....	22,450	19,372	29,366	37,280	44,954
Horses.....	1,274	1,105	1,218	1,125	1,076
OUTPUT OF LIVESTOCK PRODUCTS	1939	AVERAGE 1949-52	AVERAGE 1959-62	AVERAGE 1966-69	1970
<i>Thousands of metric tons*</i>					
Meat (including poultry).....	420	315	547	700	760
Milk (from cows).....	1,620	1,398	2,195	2,517	2,490
Eggs (from chickens).....	1,370	888	1,485	2,196	2,868
Wool (grease basis).....	16	15	14	13	12

\*Milk in millions of liters and eggs in millions.

fishing craft greater than 10 gross tons, accounts for over 75% of all fish caught. Most of the catch is processed for export; the Yugoslav fish consumption is one of the world's lowest—only 2.3 kilograms per capita in 1970.

Forests are one of the most valuable of Yugoslavia's resources. Covering about one-third of the total land area, forests are found nearly everywhere except in the Vojvodina, along some portions of the Adriatic, and in major river valleys. About half of forest resources are deciduous trees—mainly beech and oak—that rank with Europe's best. Forestry itself accounts for only about 1% of Yugoslavia's GNP, but this in turn supports the 3% contribution of the woodprocessing and paper industries.

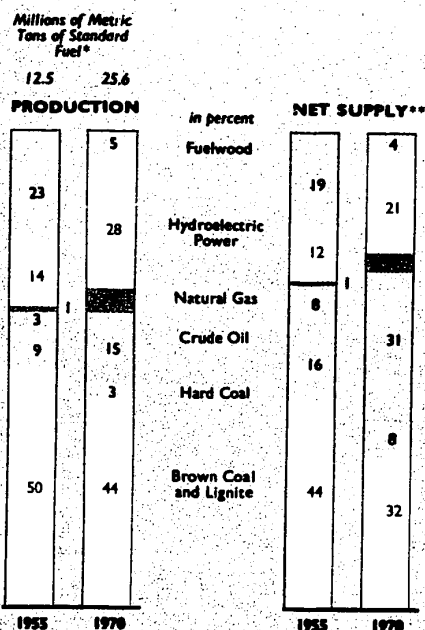
The annual timber cut fell from 31.5 million cubic meters in 1949 to only 13 million in 1957. In 1966-70 the cut was 17 million cubic meters a year, an output which apparently is being offset by natural and artificial reforestation. Most timber production has gone into sawlogs and pulpwood. The output of fuelwood has steadily declined since the mid-1960's, reflecting conservation measures, as well as the increased availability of other sources of fuel.

## 2. Fuels and power

For its size, Yugoslavia is relatively well endowed with fuel and power sources. The country has ample reserves of lignite and a large hydroelectric power potential. Crude oil and natural gas production is growing steadily, but Yugoslavia still imports most of the crude petroleum it uses. The production and net supply of primary energy sources have doubled since the mid-1950's (Figure 8). Coal remains the single most important energy source, but its share in energy consumption is continually being reduced by the use of hydroelectric power, petroleum, and natural gas. The share of coal in the net supply of energy dropped from 60% in 1955 to less than 50% in 1970. Fuelwood also declined in importance. At the same time, the share of crude oil and natural gas rose from 9% to 35%, and the share of hydroelectric power, from 12% to 21%. Data on primary fuel production, as well as on minerals, metals, and construction materials, are shown in Figure 9.

### a. Coal

The most serious deficiency in the fuel base is a shortage of hard coal. Known and probable reserves of 200 million metric tons are reported, but most deposits occur in deep, thin seams or in areas where problems of gas, water, or collapsible overburden prevent



\*Standard fuel has a calorific value of 7,000 kilocalories per kilogram.  
 \*\*Including net imports of energy products derived from primary sources.

FIGURE 8. Production and net supply of energy from primary sources

maximum exploitation. Postwar production of hard coal consistently reached 1 million tons a year until the last half of the 1960's, when several marginal mines were closed. Production has plunged from 1,333,000 tons in 1966 to only 643,000 tons in 1970, and large imports, averaging 1.8 million tons a year during 1965-70, have been necessary to meet domestic requirements.

Low-grade brown coal and lignite deposits are the most economic of Yugoslavia's fuel resources. Concentrated in several large basins, these deposits have known and probable reserves of 21.7 billion metric tons—several hundred times the 1970 output. Lignite reserves—90% of known lower grade coal deposits—are sufficiently concentrated so that highly mechanized strip mining techniques can be used in most of the major fields. Productivity has increased rapidly, particularly in Montenegro. Although the output of brown and lignite coal more than doubled during 1955-66, growth in production has slowed since the 1967 recession.



**FIGURE 9. Production of major energy products, minerals, metals, and construction materials**  
(Thousands of metric tons except as noted)

	1939	1950	1955	1960	1965	1970
Electric power (million kilowatt-hours).....	1,173	2,408	4,340	8,928	15,523	26,023
Hard coal.....	1,410	1,154	1,137	1,283	1,169	643
Brown coal and lignite.....	5,622	11,665	14,071	21,429	28,788	27,779
Metallurgical coke.....	0	0	731	1,083	1,267	1,308
Crude oil.....	1	110	257	944	2,063	2,854
Petroleum products.....	239	460	739	1,256	2,928	6,517
Natural gas (million cubic meters).....	3	14	55	53	330	977
Iron ore.....	667	731	1,398	2,200	2,504	3,694
Crude steel.....	235	428	805	1,442	1,769	2,078
Rolled steel.....	151	278	494	972	1,188	1,774
Copper ore.....	984	1,116	1,477	2,370	6,003	9,420
Lead-zinc ore.....	775	1,187	1,650	1,920	2,358	3,113
Refined copper.....	12	15	25	35	56	89
Refined lead.....	11	57	76	89	102	97
Refined zinc.....	5	12	14	36	46	65
Bauxite.....	719	206	791	1,025	1,574	2,099
Primary aluminum.....	2	2	12	25	39	47
Cement.....	894	1,220	1,572	2,398	3,102	4,399
Bricks (million units).....	830	769	799	1,321	1,717	2,186

The principal users of coal are industry, transportation, and private consumers. Industry traditionally has consumed approximately 60% of domestically produced coal and virtually all imported coal. The largest consumers of low grade coal are public and industrial powerplants (45% of lignite and brown coal production in 1970) and the chemical, iron and steel, and building materials industries, each of which uses 4% to 6% of annual output. The metallurgical industry relies on imported coke as well as domestic coke produced by mixing domestic and imported hard coal supplies. Railway transportation's share in the consumption of coal decreased by almost half in the decade 1961-70 as electrification of railways was completed on a number of routes and some obsolescent coal burning engines were replaced by diesel locomotives. The fuel requirements of households are met principally by lignite.

#### *b. Petroleum and natural gas*

Significant production of crude petroleum did not begin until after World War II. In 1948, crude production amounted to only 36,000 metric tons; in 1970, 2.9 million tons were produced. Intensive exploration efforts brought proven and probable reserves to an estimated 80 million tons in 1969. Croatia accounts for almost three-fourths of Yugoslavia's crude oil production, with the Vojvodina accounting for virtually all of the rest. The major

oilfields are located in central Croatia, but more recent discoveries have been along the littoral of Slovenia and Croatia.

Despite rapid development, oil production has increasingly lagged behind domestic requirements. Net imports (imports minus exports) of crude oil have risen from only about 25% of domestic production in 1965 to more than 150% of output in 1970. In 1970, Iraq supplied 45% of imports, the U.S.S.R., 33%, and Iran, the remainder.

The increase in the use of imported crude reflects the rapid expansion of refinery capacity. The increasing reliance on foreign petroleum sources and the cost in hard currency, however, have alarmed the government. To boost investment in domestic crude oil production, prices of petroleum products were raised substantially in March 1972. While refining capacity for gasoline and diesel fuels is large enough to permit some exports, significant amounts of fuel oil, lubricating oil, and special greases still are imported.

Natural gas has undergone a concomitant development since World War II. Production stagnated somewhat in the late 1950's, but between 1960 and 1970 output soared from 53 million cubic meters to 977 million cubic meters. Production still is smaller than in most European countries, but, with proven and probable reserves estimated at over 30 billion cubic meters, the Yugoslav natural gas industry has room for considerable expansion. In addition, the country has significant oil shale reserves, but these are uneconomic to develop at present.



FIGURE 10. Erecting the first generator of the Iron Gate hydroelectric powerplant. The dam is nominally a joint Romanian-Yugoslav project, although it has received substantial Soviet support in the form of finance, equipment, and technical know-how. Begun in 1964, the project is expected to produce 5 billion kw.-hr. a year for each of the two countries when final stages are completed.

### c. Electric power

Yugoslavia's steadily expanding electric power sector plays a key role in the economy. During 1966-70 the industry accounted for over 25% of total industrial investment, and at the end of 1971, both generating capacity—7.6 million kilowatts (kw.)—and output—29 billion kilowatt-hours (kw.-hr.)—were more than three times the 1960 levels. Despite this expansion, production does not meet the needs of all users; some seasonal rationing is necessary. Output per capita—1,405 kw.-hr. in 1971—still ranks among the smallest in Europe.

Hydroelectric powerplants accounted for 3.97 million kw., or 52% of the total generating capacity in 1971. The most important hydroelectric plants are located in the mountainous Adriatic coastal region, along the Drava River in the northwest, and on the Danube River in the northeast. Annual hydroelectric power potential was estimated at 66.5 billion kw.-hr. in 1971, but output was only 15.2 billion kw.-hr.—just over one-fifth of the potential. Production has increased significantly now that the long-awaited Iron Gate (or Djerdap) dam has gone into operation (Figure 10).

Thermal powerplants produced 13.8 billion kw.-hr. of electricity in 1971. Almost all of this output came from three republics—Serbia, Bosnia and Herzegovina, and Slovenia—the main sources of lignite and brown coal, the primary fuel used in thermal powerplants.

The electrical transmission network extends to all economically significant areas and connects with the grids of neighboring countries. Domestic transmission facilities are concentrated in the east, centering on Belgrade, and in the northwest, where they center on Zagreb. International connections—maintained with Italy, Austria, Hungary, Bulgaria, Romania, and Greece—are used mainly for seasonal exchanges of electricity; the largest exchanges are made with Romania, followed by Austria and Greece.

Industry consumes two-thirds of all electric power produced; of particular importance are nonferrous metallurgy (14.4% of industrial consumption in 1971), chemicals and rubber (18.9%), iron and steel (19.2%), and paper and wood industries (10.4%). Agriculture, commerce, public utilities, and transportation are supplied adequately with power for their needs, but only three-fourths of all households have been

equipped with electricity. Development plans for 1971-75 call for increasing the installed electric power capacity to 10.5 million kw. and expanding annual production to 51 billion kw.-hr. The increase in generating capacity will be achieved by expanding both thermal and hydroelectric installations; extreme reliance on hydroelectric power is undesirable because of periodic droughts.

### 3. Metals and minerals

The supply of metals and minerals is one of the economy's best assets. The main shortage is of high-grade iron ore, a deficiency which has led to substantial imports of both ore and pig iron. Nonferrous resources are ample, and, although there are some imbalances between raw materials and rolling mill capacity, output covers most domestic needs and provides sizable exports. Yugoslavia also has adequate supplies of most nonmetallic minerals and building materials.

#### a. Ferrous metals

In response to large investments, output of the ferrous metals industry has tripled since the mid-1950's. The industry, however, rests on a minimum raw materials base. Proven reserves of iron ore amount to 365 million metric tons but have an average iron content of only 37%, compared with about 45% in the U.S.S.R. Output in 1970—3.7 million tons—was supplemented by imports of 212,000 tons of high-grade ore (over 42% iron), mainly from India. Imports of pig iron also are required—172,000 tons were brought in during 1970, compared with an output of 1.3 million tons. In that year Yugoslavia also imported hard coal (1.8 million tons), metallurgical coke (201,000 tons), iron and steel scrap (147,000 tons), and some alloying materials, all to support an output of about 2 million tons of crude steel and 1.8 million tons of rolled products.

The bulk of investment since 1965 has gone into new steel mills in Skopje, Macedonia, and Smederevo, Serbia (near Belgrade), and for renovation of plants at Zenica in Bosnia and Hercegovina and at Jesenice in Slovenia (Figure 11). Progress, however, has been slowed since the mid-1960's because of difficulties in obtaining financing and rising building costs. Moreover, Tito himself has criticized the pattern of development of the steel industry and the role of regional self-interest in the allocation of investment funds. Each republic has lobbied successfully for a steel mill. Most of the plants built—except for Zenica and Skopje—have been small and inefficient by West

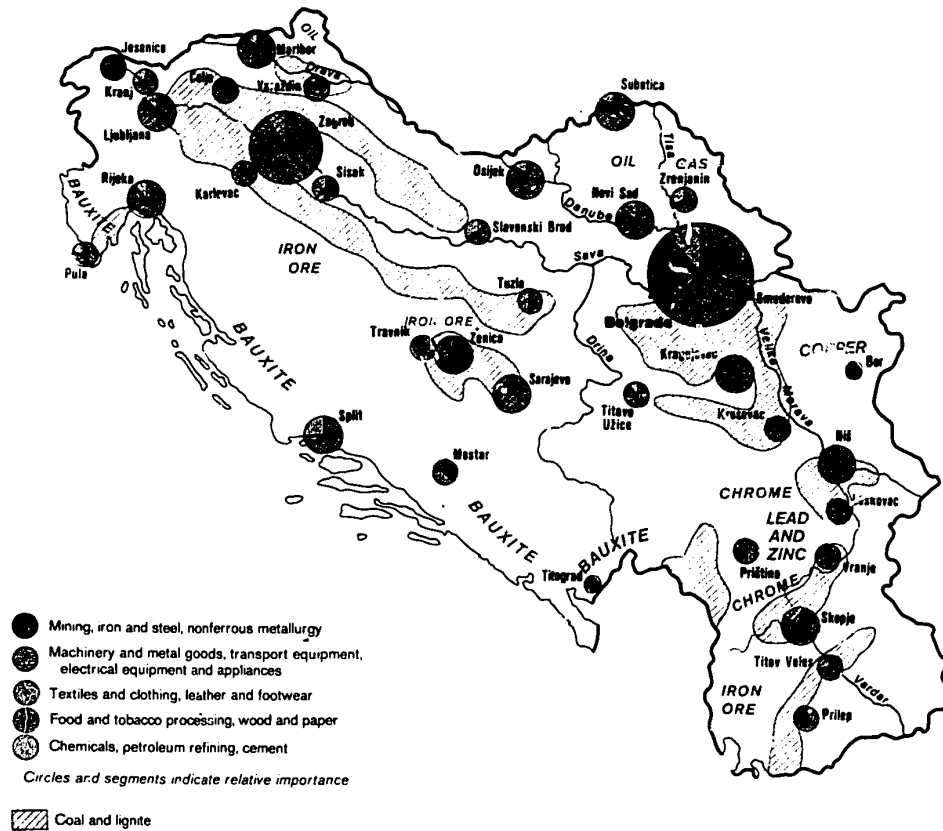
European standards. More recently, however, regional aspirations have signaled a new danger. Some republics are talking about building new facilities which might well stretch capacity for many standard products beyond Yugoslav needs. Such expansion would require more imports of materials, and undoubtedly would not yield much in the way of hard currency exports. A classic example is the new steel complex under construction near Split on the Adriatic, a project which Tito in 1969 had branded as too costly and unnecessary.

#### b. Nonferrous metals

In both resources and production of nonferrous metals, Yugoslavia is one of the leading countries of Europe. Excluding the U.S.S.R., Yugoslavia leads Europe in the production of copper, lead, and antimony ore and is second in the production of bauxite and mercury. Yugoslavia accounts for about 1% of the world's copper production, 3% to 5% of antimony, bauxite, and lead, and about 6% of the mercury output. Significant amounts of zinc, gold, and silver are also mined. Production in 1971 of 89,000 metric tons of electrolytic copper, 97,000 tons of refined lead, and 65,000 tons of refined zinc satisfy domestic needs and provide a substantial surplus for export, either directly or after further processing. Electrolytic copper production has expanded by over 250% during the 1960's, and much of the increased output has found its way into export markets. In 1970, nearly 39% of Yugoslavia's copper was exported, most of it to the United Kingdom, followed by France and the United States. Exports of rolled copper and copper products are important, but lead, zinc, and other nonferrous metals are still exported primarily in unwrought forms. The Bor and Majdanpek mines (Figure 12), both located in Eastern Serbia, are the center of Yugoslavia's copper industry. Expansion is taking place at the Bor metals complex—already Europe's largest—to increase annual capacity to 150,000 tons. The most important lead and zinc facilities are located near the Mezica<sup>1</sup> mine in northern Slovenia and at the Trepca mine in Serbia (Figure 12). A new foundry at Titov Veles near Skopje in Macedonia was to be completed in 1972, and is expected to raise the industry's smelting capacity to 210,000 tons of lead and 160,000 tons of zinc.

Because Yugoslavia has large bauxite reserves (about 6% of world reserves) and a large hydroelectric potential, the aluminum industry is a prime target for

<sup>1</sup>For diacritics on place names see the list of names at the end of the chapter.



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FIGURE 11. Industry

expansion. Over 90% of the annual bauxite production is exported, and imported aluminum ingots are necessary to keep rolling mills operating at capacity. Early plans to develop the industry were upset in 1958, when the U.S.S.R. and East Germany suspended a credit of US\$175 million for the construction of an aluminum plant. In 1971, talks between Energoinvest of Sarajevo and Kaiser Aluminum on a proposed aluminum combine fell through. Nevertheless, the industry finally is being expanded. In February 1972, a credit agreement for \$130 million was signed by the Soviets and Energoinvest for the construction of a new facility at Zvornik in Bosnia and Hercegovina. Two plants, an integrated aluminum combine at Titograd in Montenegro and an alumina factory at Mostar in Bosnia and Hercegovina, began production during

1972 under licensing agreements with the French firm Pechinet. In 1971 the Kidricevo plant in Slovenia produced over 90% of the 130,000 metric tons of alumina produced in Yugoslavia. In 1972 annual alumina capacity should exceed half a million tons, and aluminum ingot capacity should reach 150,000 tons, compared with the 1971 ingot production of 48,000 tons.

*c. Nonmetallic minerals and construction materials*

Yugoslavia has ample deposits of a variety of nonmetallic minerals, including magnesite, limestone, pyrite, gypsum, and asbestos. Because of deficiencies of phosphate rock and potash, however, the production of chemical fertilizers is dependent upon imported raw materials.



Loading copper ore at the Majdanpek mine

The Trepca complex, a leading producer of lead and zinc



FIGURE 12. Yugoslavia's ample nonferrous resources include copper, lead, and zinc

Production of basic construction materials, such as bricks, stone, glass, and lime, has been generally adequate to satisfy domestic requirements. Cement production, although it has risen from 1.6 million metric tons in 1955 to 4.4 million tons in 1970, still must be supplemented by substantial net imports, amounting to 1.5 million tons in 1970.

#### 4. Manufacturing and construction

The volume and variety of manufactured goods have expanded rapidly under the Tito regime (Figure 13). Much of the expansion, particularly during the 1950's, has taken place under a policy of easy credit and heavy import protection enabling many unprofitable and uneconomic firms to survive. The autarkic tendencies of the republics have in many cases led to the construction of plants of suboptimum size, hindered cooperative efforts between enterprises in marketing and research, and slowed the rate of technological innovation. Moreover, the rapid growth of manufacturing has greatly increased the demand for imports. Large imports of capital equipment (mainly from Western countries) have been required

to develop processing industries that, in some cases, have outstripped domestic production of basic raw materials and semimanufactures. Manufacturing industries draw heavily upon Western technology, not only by importing advanced machinery and equipment, but also through licensing arrangements and an increasing number of joint ventures.

The government has been trying to streamline the manufacturing sector. The price reform of 1965 raised raw material prices relative to prices of manufactured goods in an effort to eliminate excessive profits and weed out clearly unprofitable firms. Beginning in 1967, the relaxation of import restrictions subjected some manufacturing branches, such as chemicals, metalworking, textiles, and the leather industry, to more intense foreign competition. These measures, in conjunction with the economic recession of 1967 and a tight credit policy, forced a few uneconomic enterprises out of business. Many more firms have continued to operate with losses by piling up debts with other enterprises. This situation has in a number of cases disrupted investment plans of profitable enterprises.

FIGURE 13. Production of selected manufactured goods

	UNITS	1939	1950	1955	1960	1965	1970
Tractors.....	Units.....	0	53	1,100	7,309	7,430	12,047
Freight cars.....	do.....	0	1,243	477	3,422	4,848	2,609
Passenger automobiles and trucks.....	do.....	0	826	3,210	15,025	45,452	123,610
Maritime cargo ships and tankers.....	Thousand gross register tons (launched).	na	0	31	161	299	402
Electric wire and cable.....	Thousand metric tons.....	1	3	5	57	80	104
Sulfuric acid (100%).....	do.....	23	38	73	130	435	747
Soda ash (100%).....	do.....	22	32	39	89	93	113
Calcium carbide.....	do.....	55	41	44	73	105	113
Mineral fertilizers (nutrient content).....	do.....	9	14	34	50	226	480
Tires for motor vehicles and aircraft.....	Thousands.....	8	54	87	391	955	2,763
Paper.....	Thousand metric tons.....	35	49	62	142	365	483
Plywood.....	Thousand cubic meters.....	13	14	25	71	111	103
Cotton fabrics.....	Million square meters.....	111	146	174	257	394	390
Wool fabrics.....	do.....	12	25	26	4	55	57
Leather footwear.....	Thousand pairs.....	1,208	8,154	6,859	14,970	29,987	31,074

na Data not available.

**a. Metalworking industries**

Development of the metalworking industries—producers of machinery, transport equipment, household appliances, and other consumer goods—has been one of the focal points of Yugoslavia's drive for industrialization. Net product in the metalworking industries increased fivefold during 1955-70, while the industries' share in net industrial product rose from 21% to 28%.

Among the most rapidly expanding industries in this group is the production of electrical equipment and appliances. Major product lines include turbines, generators, transformers, electric motors, electric wire and cable, as well as TV sets, radios, and refrigerators. The Rade Koncar enterprise of Zagreb is one of the more important domestic producers in this field (Figure 14). The firm has supplied most of the

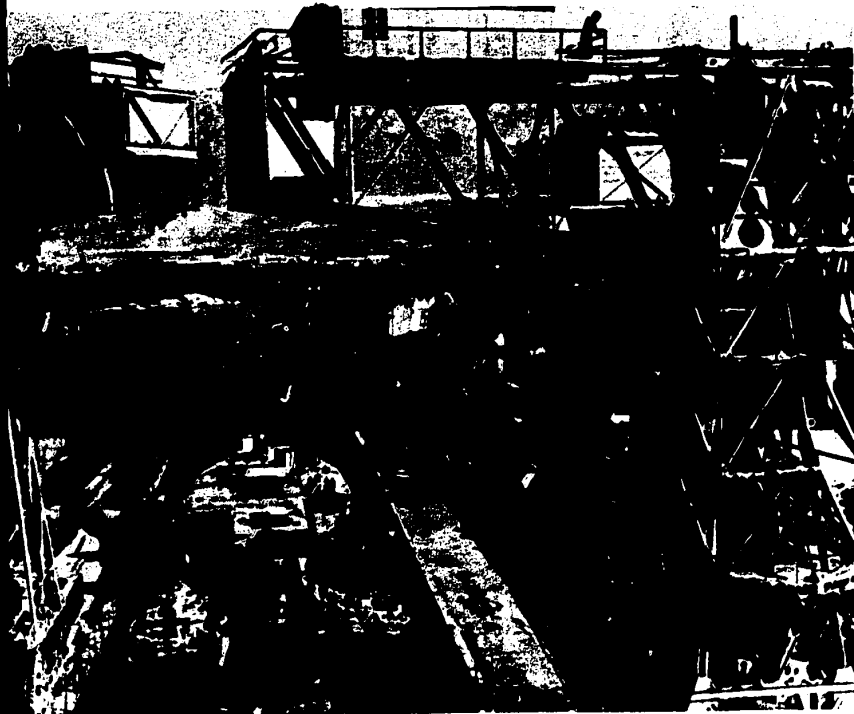
electrical equipment used in Yugoslav hydroelectric and thermoelectric projects both at home and abroad. The industry also includes one of Europe's largest cable producers, the Mosa Pijade cable enterprise of Svetozarevo, Serbia. Electric wire and cable are the leading exports of the electrical equipment industry and alone accounted for 3% of total industrial exports in 1970.

The production of transport equipment—ships, locomotives, railroad cars, automobiles, trucks, buses, motorcycles, and bicycles—also has expanded rapidly. Most shipbuilding takes place at the three large maritime shipyards on the Adriatic coast in Pula, Rijeka, and Split (Figure 15), and in two yards on the Danube in Serbia. Although the yards sometimes have difficulty securing orders, production has continued to grow, and plans for the construction of vessels of up to



FIGURE 14. The production of rotors for electric generators at the Rade Koncar enterprise, Zagreb

FIGURE 15. The production of transport equipment is one of the most important Yugoslav metalworking industries.



Shipyard in Split. The Yugoslav merchant fleet, a valuable earner of foreign exchange, consists largely of domestically built ships.



Most passenger automobiles are produced at the Crvena Zastava plant in Serbia, under licensing of Fiat of Italy

265,000 gross register tons are underway. Ships are built for export to both Communist and non-Communist countries; while the U.S.S.R. has been the largest purchaser in the past, ships have been exported to Norway, Sweden, India, and the People's Republic of China.

Output of passenger automobiles (Figure 15) has jumped from only 760 units in 1955 (the first year of production) to 113,218 units in 1971. Expansion of the Crvena Zastava plant at Kragujevac, Serbia, has been underway for several years and is to continue until 1973-75, by which time the production goal is to be 450,000 to 500,000 annually. Series production of the Zavasta-101—the first all-Yugoslav-made car—began sometime late in 1972. Smaller numbers of cars and buses are assembled in Slovenia and in Bosnia and Hercegovina from imported parts. Imports of assembled passenger automobiles totaled about 43,000 units in 1971.

Yugoslavia also produces a wide variety of machinery and equipment, including machine tools, agricultural machinery, construction equipment, pumps, boilers, compressors, heating and ventilating equipment, and household appliances. Much machinery, especially of larger or more sophisticated design, must be imported. Imports of machinery and equipment normally are over twice as large as exports; in 1970 machinery and equipment accounted for 33% of total Yugoslav imports, compared with 23% of total exports.

Producers of machinery and other metal products were among the hardest hit by the price-cost squeeze in 1965 and the relaxation of import restrictions in 1967. In 1968, output of all finished metal products was still slightly below the 1965 level. Since 1968, production in metalworking has been affected by the general boom in investment and industrial output. There is still room, however, for substantial improvement in the structure and quality of output in this sector.

#### *b. Chemicals*

Since 1955 large sums have been invested in the chemical industry. While these investments led to rapid growth (chemical output rose more than 10 times during 1955-70), the industry remains heavily dependent upon imports for many of its synthetic materials, especially polyvinyl and polymers. Growth in the production of sulfuric acid and mineral fertilizers has been particularly rapid (Figure 13). Increasing the production of artificial fertilizers has been important to agricultural self-sufficiency. Yugoslavia was a heavy importer of fertilizers until the

late 1960's; now some fertilizers are exported. Exports of chemicals, chiefly pharmaceutical products, plastics, basic compounds, and cellulose have continued to increase slowly, but the industry still requires large imports of basic chemical elements and compounds, dyes, and plastics. In most years, chemical imports have been over twice as large as exports.

The fragmentation of the Yugoslav chemical industry hinders its development—in 1969 there were 148 chemical firms, three-fourths of which employed fewer than 500 persons. Past investments have been concentrated in inorganic chemicals and cellulose with special emphasis on fertilizer production. Future expansion is expected to take place in petrochemicals under foreign licensing. One of the major producers, OHIS of Skopje, is constructing a plastics factory with technical assistance from Pechinet of France.

#### *c. Light industry*

Comprising the textile, wood processing, paper, leather, rubber, and printing industries, light industry accounts for about one-fourth of total exports. The textile industry ranks second only to metalworking in value of net product (14% in 1970) and employment (237,000). In 1969 the industry consisted of 338 firms, of which 62 employed more than 1,000 persons each. Production of all textile products more than doubled during the 1960's. Particularly rapid growth has taken place in the manufacture of clothing and artificial fabrics. The value of textile exports more than tripled during the 1960's, but the value of textile imports consistently exceeded exports. The industry must import most of the cotton (mainly from the U.S.S.R., Egypt, and the United States) and much of the wool and synthetic fiber necessary for textile production.

Another key industry is wood processing, which in 1970 ranked seventh in size of net product. Exports of furniture, particularly to the United States and Western Europe, earn substantial amounts of hard currency. Sawn hardwood and softwood, as well as veneers, are shipped to both Western and Communist countries. In addition to wood processing, forest exploitation supports the growing paper industry, whose output tripled in value during the 1960's.

The leather and rubber industries have expanded about as fast as the other light industries. Output of leather is large enough to permit sizable exports of shoes and various leather products. Production of rubber products, on the other hand, depends heavily on imported raw and synthetic rubber, and, even though output of rubber tires and articles has been growing, a large portion of domestic requirements is met by imports.



*d. Agricultural processing*

Agricultural processing ranks fourth among Yugoslav industries in value of net product and in employment. The industry supplies most of the food, beverages, and tobacco that pass through domestic commercial channels and is one of the leading export sectors. Although the share of food and tobacco products in total exports has declined to about 20%, fresh and processed meats, canned fish, fruits and vegetables, alcoholic beverages, and tobacco are still important earners of hard currency.

In 1971 there were 192 enterprises in the agricultural processing industry. About three-fourths of them employed fewer than 500 workers. The typical processing plant has outmoded equipment, reflecting the neglect of this industry during the industrialization drive. Some progress has been made over the last several years, however, by increasing the average size of plants and employing more advanced processing, canning, and bottling machinery imported from Western Europe and the United States.

Production of processed foods expanded roughly at the same rate as total industrial production since the mid-1950's; tobacco production grew at a far slower pace. The output of various processed agricultural products between 1960 and 1970 increased as follows, in tons except as noted:

	1960	1970
Flour ( <i>thousand tons</i> )	1,597	2,172
Sugar ( <i>thousand tons</i> )	264	354
Canned meat	33,000	56,741
Bacon and sausage	21,800	72,512
Canned fish	16,500	22,149
Canned vegetables	20,200	78,575
Fruit preparations	36,800	47,005
Alcoholic beverages ( <i>thousand hectoliters</i> )	22,500	42,113
Tobacco products	20,343	32,179

*e. Construction*

The construction industry has undergone considerable expansion in the postwar period to meet the demands of industrialization and the growing need for household construction that has accompanied rapid urbanization (Figure 16). Construction activity slowed during 1965-67, rebounded in 1968, and remained at a high level during the boom years of 1969-70. The construction sector employs about 332,000 persons, generates about one-tenth of GNP, but receives only about 2.6% of gross investment in fixed capital. The use of outdated construction methods by most enterprises has resulted in a slow rate of growth in labor productivity. Of the 730 enterprises engaged in construction activity (including design, assembly, and



FIGURE 16. Housing construction in Belgrade. Despite considerable expansion in the construction industry, most enterprises lack modern equipment and use outdated methods.

related firms), only about 85 are fairly large, with more than 1,000 employees. These larger firms execute most major projects at home and abroad—powerplants, factories, ports and roads, hydrologic work, and geological exploration. In 1970, Yugoslav construction enterprises were engaged in projects in 36 countries, mostly developing nations. The total value of construction completed abroad in 1969-70 was US\$180 million, carried out mainly in Libya, Zambia, Pakistan, Czechoslovakia, and East and West Germany. The leading international construction enterprises are Energoprojekt of Belgrade, and Energoinvest of Sarajevo.

In 1965-70 construction of residential housing accounted for about 37% of the value of completed construction, representing only a small increase from the share in the early 1960's. The construction of hospitals, government offices, and schools usually makes up about 6% to 8% of the total, while

construction of transportation facilities consumes about 12.5% of total outlays. Efforts in recent years to reduce the backlog of urban housing needs have met with moderate success. Since 1967 about 500,000 units have been completed. Average dwelling space per inhabitant increased from 8.7 to 11.9 square meters during this period, but Yugoslavia still ranks below most of Western Europe and some Eastern European countries in this respect. Moreover, the standards of quality of most structures, including newer ones, are well below those in Western Europe.

### 5. Retail trade

The quality, variety, and regularity of supply in the retail trade network have been consistently superior to those of other Communist countries. The consumer has profited from a steady rise in the volume of goods handled by the network—parallel to the general increase in urbanization and in the level of living. Queues for food, clothing, and other essentials are now infrequent, and supplies of luxuries are growing rapidly, although still beyond the reach of much of the working class. Substantial improvement needs to be made in bringing the trade network closer to consumers in rural and backward areas and in increasing the use of marketing techniques in order to gear production more closely to consumer demand.

Domestic trade enterprises, like other firms outside agriculture and handicrafts, are socialized and operate under workers' management. In addition to trade organizations, the government permits wholesale or retail sales of goods by private producers in agriculture and handicrafts. In 1970, 1,254 retail and 985 wholesale firms specialized in domestic trade. The number of trade firms has been reduced, mainly through mergers, by almost 1,800 during the 1960's. On the other hand, employment has risen from 199,000 in 1960 to 311,000 in 1970, and the number of shops operated by trade organizations rose from 41,000 to 62,000 during the same period.

The volume of retail sales more than doubled between 1960 and 1970. The largest gains have been in sales of gasoline, which increased by more than six times during the period, and of electric appliances, which rose by five times. Sales of metal, wood products, and construction materials roughly tripled during the decade. The smallest increases have been for coal and fuelwood, artificial fertilizers, soaps, and fabrics; sales of these products either have barely increased or have fallen since 1960. Essentials such as food and clothing still account for about 60% of retail sales. In 1970, food and tobacco made up 37% of retail

turnover; textiles, leather and footwear, 21%; and household fuel, 1%. Consumer durables, however, have made a significant impact on the market in recent years—at least in the largest urban areas. During 1960-70, sales of passenger automobiles have leaped from less than 8,000 units to 80,000; television sets, from 14,000 to 272,000; and refrigerators, from 35,000 to 258,000.

In addition to the domestic trade network, Yugoslavia has a large and fast-growing catering industry. In 1970, the industry employed 136,000 people and operated over 900 hotels and motels, as many boarding houses and other living quarters, 1,400 restaurants, over 10,000 inns and taverns, and over 7,000 coffeeshouses and snackbars. Spurred by the tourist boom since the mid-1960's, catering and tourism together received over 7% of all Yugoslav investment in 1970, more than total investment in agriculture and nearly equal to spending on electric powerplants—the largest single area of industrial investment. Even so, the catering network has been hard pressed to keep pace with the growth of tourism, especially along the popular Dalmatian coast.

## C. Planning, policy, and finance

### 1. Planning and policy

Formal government objectives are embodied in annual and medium-term plans, which contain noncompulsory forecasts for output, employment, incomes, investment, consumption, and foreign trade. The plans also designate priorities among economic sectors and geographic areas. In theory, plan objectives are to be pursued by indirect instruments of economic policy such as general credit and tax policies. In practice, the government has had to impose selective controls on prices, investments, and imports because of chronic inflationary pressures, distortions in the structure of prices and output, and destabilizing features of the economic system itself.

Medium-term (generally 5-year) plans have been poor indicators of economic trends in Yugoslavia, even when the government has gone all out to achieve them. Indeed, two of Yugoslavia's four 5-year plans (1947-51 and 1961-65) were scrapped when it was clear that they would not be achieved, and only the second 5-year plan (1957-61) was fulfilled. The plan for 1966-70 called for average annual increases of 7.5% to 8.5% for national income, 9% to 10% for industry, 5% for agriculture, and 13% to 15% for exports as against 10% to 12% for imports. By 1967, with the economy deep in recession, it was clear that these goals were no longer feasible. Actual results

during 1966-70 were average annual increases of 6% for both national income and industry, 3% for agriculture, only 5% for exports, and 14% for imports.

Throughout the postwar period, plans and policy pronouncements have reflected three main objectives—rapid growth, decentralization to spur efficiency and exports, and the elimination of regional economic disparities. These objectives have become increasingly incompatible. On one hand, narrowing the regional income gap requires a strong federal role in resource allocation, while greater efficiency through market forces requires just the opposite. Moreover, rapid growth, which tends to favor the less developed areas, has been accompanied by inflation and balance of payments problems, forcing the government to tighten controls on market forces.

A change in priority has taken place since the reforms of 1965-67, which sought improvements in the structure of prices and output and increases in exports through greater decentralization. As a result of the recession of 1967, the outbreak of inflation in 1969-70, and the revival of regional political and economic tensions throughout the late 1960's, the leadership has shifted its sights. The key goal of economic policy in 1971-75 is achieving stability, which will involve extensive price and credit controls and even some sort of wage policy. At the same time, the plan projects a growth rate for less developed areas of 25% above that for the country as a whole, or about 9.4% per year compared with about 7% for the more developed areas. Unlike the 1966-70 plan, virtually nothing is said about increasing efficiency.

Policy makers have always had trouble controlling Yugoslavia's decentralized economy. The constitutional reform in 1971, moreover, may add indecision to the current problem of getting the desired impact from economic controls. The new Constitution is laced with the provision that the federal government secure, or attempt to secure, republic agreement on major policy questions. Moreover, the republics have acquired considerable power and latitude in the implementation of national policy.

Some insight into the kinds of problems that might be faced by the leadership in the 1970's may have been provided by the dismal record of policymaking during the inflation of 1970-71. A price freeze enacted in the fall of 1970 was never enforced, attempts to control wages were watered down under trade union pressure to a meaningless 12% limit on the growth of those wages that were above the Yugoslav average. Republics—charged with carrying out control—even

allowed exceptions to that liberal wage limit. The government also prompted considerable speculation by exposing in October 1970 an internal debate over whether or not to devalue the dinar. Imports soared, and, although the government then had little choice but to devalue, it was not done until January 1971. Some of the indecision was caused by the impending constitutional reform and government reorganization. But the fact that the economy ran out of control for nearly 2 years while the government tried to enact an effective stabilization program spells trouble for decentralized economic decisionmaking—especially after Tito's departure.

## 2. Government finance

The constitutional reform of 1971 marked a major reduction in the financial role of the federal government. All federal spending now is to come out of the federal budget. Extrabudgetary accounts—such as federally sponsored investment projects—have been transferred to republics. The federal government's financial responsibility has been restricted to providing for the national defense, covering its own administrative expenses, providing various economic subsidies, and assisting war veterans. Belgrade will continue to act as a clearing house for the Fund for Underdeveloped Areas, which is financed by obligatory contributions from the more advanced regions—Slovenia, Croatia, and Serbia. Direct federal investment, however, has been completely eliminated.

The structure of government revenues and expenditures has changed considerably from that shown for 1965 and 1970 in Figure 17. Gone are federal revenues from taxes on personal income and retail turnover, which now are collected by the republics and provinces. Revenues for the 1972 federal budget are from two sources—almost 50% of budgetary expenditure will be supplied by the federal government from its remaining sources of revenue, primarily customs duties, and the rest will come from levies upon republics and provinces. For the most part, regional contributions correspond to per capita levels of development; Croatia, Slovenia, and Serbia proper accounted for about 70% of such contributions in 1972.

Defense remains the largest category of federal expenditure. At least for 1972, large amounts also were to be spent on export rebates and other so-called interventions in the economy and on supplementary grants to the less developed areas (in addition to the regular Fund for Underdeveloped Areas).

**FIGURE 17. Sources and distribution of budget revenues by government level**  
(Millions of dinars at current prices)

	FEDERAL		REPUBLIC AND PROVINCE		DISTRICT AND COMMUNE	
	1965	1970	1965	1970	1965	1970
Revenues.....	8,101	14,169	4,144	5,805	6,480	7,502
Turnover taxes.....	3,873	6,501	623	2,051	1,324	2,170
Personal income taxes.....	1,097	1,654	2,478	1,450	3,203	2,246
Import tariffs.....	1,968	3,498	0	0	0	0
Taxes on crafts and other activities.....	0	0	2	26	293	439
Stamp duties.....	44	690	30	247	319	561
Transfers from other government units.....	0	0	682	1,819	490	649
Other revenues*.....	1,119	1,823	329	212	851	1,437
Distribution of receipts.....	8,386	12,926	4,098	5,572	6,268	7,162
National defense.....	4,293	7,600	1	7	0	69
Administration.....	457	845	864	1,673	1,378	2,771
Education, health, culture, social services**.....	469	544	711	1,695	3,191	2,209
Investment.....	63	80	212	549	772	1,168
Subsidies, other interventions in the economy.....	1,458	697	232	342	118	213
Transfer to other levels of government.....	742	2,629	1,120	1,114	3	0
Reserve funds.....	124	157	105	74	204	156
Other expenditures.....	780	374	853	118	602	576

\*Primarily receipts of administrative organs, transfers from previous years, and, for the federal government in 1970, taxes for remuneration for services.

\*\*Beginning in 1967, education ceased to be budget-financed and was switched to autonomous financing by educational associations at the commune level.

Planned federal revenues and expenditures in 1972 were as follows (in millions of dinars):

Revenues:	24,252
Tariffs and consular fees	11,258
Revenues of federal agencies	742
Republic and Province contributions	12,252
Expenditures	24,252
Administration	3,293
Defense	11,731
Interventions in the economy	4,223
Regional grants	4,846
Other	159

Undoubtedly, spending at the republic and province level should increase noticeably starting in 1972. The full impact of the transfer of federal funds, however, will not be felt for a few years. The extrabudgetary accounts inherited by the republics were badly in arrears, and the money that the federal government owed on several investment projects will have to be made up by the republics. In order not to strap less developed republics, the federal government has agreed to fulfill its obligation to Montenegro and Macedonia, which includes extrabudgetary projects such as the Belgrade-Bar railroad.

The largest extrabudgetary activity is the social security system, still supervised by the federal

government although it is under the day-to-day control of self-managed social insurance associations operating at the various levels of government. The system offers a wide range of benefits to most of the nonagricultural population, plus health insurance for farmers. During the 1960's social security expenditures increased 600%, as coverage of the population was extended and benefits were enlarged; these expenditures totaled 19.5 billion dinars in 1970. Approximately 37% of the expenditure in 1970 was for health care, and 28% was for old-age and survivors' benefits.

### 3. Investment and banking

The main shifts during the 1960's in the sectoral pattern of investment were a decline in the share of agriculture and large increases in the shares of trade, housing, and municipal services (Figure 18). Industrial investment and spending for government and other social services declined after 1965.

Regional shares of investment have changed little during the 1960's, even after 1965 when the Fund for Underdeveloped Areas was instituted to formalize assistance to the backward regions. The most developed areas—Slovenia and Croatia—have slightly

**FIGURE 18. Sources and distribution of investment.\***  
(Percent, total investment = 100)

	1960	1965	1970
<b>Source of Financing:</b>			
Government.....	62	26	16
Banks.....	1	37	51
Enterprises.....	31	29	27
Other organizations.....	6	8	6
<b>Distribution by Sector:</b>			
Industry.....	35	36	32
Agriculture and forestry.....	13	9	7
Construction.....	2	2	3
Transport and communications.....	18	12	14
Trade and handicrafts.....	6	6	16
Housing and municipal services.....	15	24	20
Social, cultural, and governmental activities.....	11	11	8
<b>Distribution by Republic:</b>			
Slovenia.....	13	14	15
Croatia.....	23	23	25
Serbia.....	41	37	36
Bosnia and Hercegovina.....	12	13	12
Macedonia.....	6	10	8
Montenegro.....	4	3	3

\*Components may not add to 100% because of rounding.

increased their share of investment, and Serbia has lost ground. The less developed areas have held their own; Macedonia experienced a sharp upsurge in investment in the mid-1960's, reflecting countrywide and foreign assistance in rebuilding Skopje, which was leveled by an earthquake in 1963. Investment in Kosovo—Serbia's, and Yugoslavia's, most backward area—ranged from 3% to 5% of total investment throughout the 1960's.

The federal and republic governments have not financed directly a large share of Yugoslav investment since 1963 when their large social investment funds were transferred to the banking system. As shown in Figure 18, investment by all government levels has dropped from 62% of total investment in 1960 to 16% in 1970; meanwhile, bank investments have climbed from 1% to 51%. The share provided directly by enterprises has slipped from 31% to 27%.

The expansion of banking resources was followed by a wholesale reform in 1965 which established the role and structure of the banking system. The Law on the National Bank of Yugoslavia designated that bank as the "bank of issue" and gave it the authority to control both the stock of money and foreign payments. The Law on Banks and Credit Operations set out the function of three categories of banks: 1) investment banks, primarily responsible for financing investments in fixed assets, but also permitted to extend short-term credits; 2) commercial banks, which concentrate on

the extension of short-term credits, and which may invest in housing and communal services, as well; and 3) mixed banks, which extend both short- and long-term credits. The reform also placed banks on a profit-loss basis and forced them to meet minimum capitalization requirements before they could go into business. Finally, the reform was intended to break the domination of banks by regional and local political interests. Government bodies could still participate in establishing new banks but were limited to 10% of the total votes in a bank's board of directors.

Since 1965 the banking system has been condensed, but with a greater number of bank branches. An increasing number of bank mergers should improve the mobility of investment funds within and between regions. Tito, in particular, has pushed for these mergers in the hope that a broader spectrum of profit opportunities might help to weaken parochial motives for investment. However, local governments, working through the banking system, still play a major role in the allocation of investment—out of proportion to their voting strength in bank directorates. Local political and business interests normally have gone hand in hand; enterprises and communal bodies, which usually are the founders of the banks, naturally want to be the main beneficiaries of bank resources.

The federal government still has exercised considerable control over investment through the general credit policies and reserve requirements of the National Bank. For example, a tight money policy during 1965-67, reflected in a mere 7% increase in the money supply, led to a 13% drop in the real volume of investment between 1964 and 1967. Moreover, the government has imposed selective credit policies, usually to discourage investment by unprofitable enterprises and to promote investment in promising export-earning sectors such as tourism. National Bank policy is apt to be weakened by the 1971 reform. "National" banks are to be set up in all republics, to help formulate and carry out national monetary policy. The directors of these banks are to make up the board of directors of the National Bank.

#### D. International economic relations

The Yugoslav strategy for economic development depends heavily on foreign trade, particularly with the West, to acquire material inputs and advanced technology. To increase trade, the government actively participates in many international organizations. In addition, Belgrade puts a high priority on tourism and encourages workers abroad to remit earnings to boost foreign exchange inflows. These

earnings have been large, but total receipts together with commodity exports have not satisfied Yugoslavia's appetite for imports. During 1969-71, for example, the balance of payments deficit mounted rapidly and, as in 1964-65, Yugoslavia had to fall back on emergency Western assistance. In a long-range move to relieve some of the balance of payments constraints on development, the government in 1967 authorized direct foreign investment in partnership with Yugoslav enterprises. So far, foreign response has been less than the Yugoslavs had hoped.

### 1. Foreign economic policy

As a "nonaligned" country willing to accept aid and trade concessions from almost any quarter, Yugoslavia belongs to nearly all international economic organizations and has sought special relationships with customs unions in order to protect and promote its trade. Yugoslavia is a charter member of the International Monetary Fund (IMF) and the International Bank for Reconstruction and Development (IBRD). Active roles also are played in other agencies of the United Nations such as the Economic Commission for Europe (ECE) and the Food and Agricultural Organization (FAO). Since 1955 the country has been a limited participant in the Organization for Economic Cooperation and Development (OECD) and its predecessor, the Organization for European Cooperation. Although full membership in the General Agreement on Tariffs and Trade (GATT) was not obtained until 1966, selected participation began in 1959. Yugoslav trade representatives have negotiated with both the European Economic Community (EEC) and the European Free Trade Association (EFTA) to obtain a special status for their exports. In 1970 these negotiations produced a 3-year nonpreferential, nondiscriminatory trade agreement with the Common Market, the first commercial treaty between the EEC and a Communist country.

Since 1964, Yugoslavia has been an associate member of the Council for Economic Mutual Assistance (CEMA). This arrangement satisfies Belgrade's desire to seek opportunities for expanded trade and economic cooperation with other Communist countries without compromising its neutrality and independence. Yugoslavia participates in the work of CEMA commissions dealing with foreign trade, currency, and finance, iron and steel, nonferrous metals, metalworking, chemicals, and scientific and technical cooperation. Attendance at other meetings, including the high-level executive

meetings, has been on a selective basis. Yugoslavia has only an advisory role in CEMA and, like the full members, is not bound by the council's decisions unless they are ratified by its own government.

As its widespread involvements suggest, Yugoslavia's foreign trade policy is geared not only to growth but also toward achieving a suitable balance between the clearing trade with the Communist countries and the hard currency trade with the West. Particularly since the reform of 1965, Yugoslavia's trade policy has been focused on increasing the competitiveness of manufactures in Western markets, while maintaining the fairly slow-growing sales of food and raw materials. Trade decisions have been decentralized, most export subsidies removed, cooperation deals have been pushed, and the dinar has been devalued several times, all a part of the effort to promote exports. Yugoslavia, however, still faces a marginal Western market for its manufactures; the government consequently has had to rely more on import controls than on export successes to keep the deficit with the West within tolerable limits.

The opposite problem—a tendency toward export surpluses—has been a major factor in Yugoslavia's trade with the Communist countries. Yugoslav producers of manufactured goods have found it easy to sell to the CEMA countries, but have resisted buying many of the goods—machinery and other finished products—that these countries have wanted to peddle in Yugoslavia. Moreover, rigid clearing agreements and goods lists have made it hard for the Yugoslavs to turn to these countries on short notice for imports of raw materials and semifinished goods in periods when inflationary growth has led to payments problems with the West.

To make this trade more compatible with Yugoslavia's decentralized economy—and more useful in times of instability—Belgrade has lobbied to convert the trade to a hard currency basis and to increase the role of enterprise-to-enterprise trade. Thus far, the Yugoslavs have secured only agreements to settle some outstanding clearing balances in hard currency and the establishment of joint banks (with Hungary, Bulgaria, Romania, and Czechoslovakia) to facilitate cooperative deals and handle debt settlements.

Yugoslavia has eliminated its clearing agreements with nearly all the less developed countries. Belgrade had long hoped that the Third World, along with the East, would provide markets for machinery and the other goods that could not be sold in the West. The country, however, has found itself in sharp

competition with the West; like Yugoslavia, developing countries prefer to buy better quality Western goods, and Yugoslav banks and exporters have been hard pressed to meet or beat the volume and terms of Western credit facilities. In line with the general policy to expand trade, Belgrade wants full dinar convertibility in international markets. Efforts have been frustrated, however, by unexpectedly large trade deficits and the lack of gold and foreign exchange reserves to insure that Yugoslav banks could pay hard currency for dinars on demand. Moreover, inflation and frequent devaluations have eroded world confidence in the potential stability of the dinar.

## 2. Foreign trade system

The present foreign trade system was set up by the reform of 1965-67. Although liberalization of trade was a key element of the reform, the system still relies heavily on quotas, licenses, and regulation of foreign exchange earnings to limit imports. These controls are designed to balance trade flows to clearing and hard currency areas. Additional restrictions, such as import deposit requirements and import surcharges have been imposed during balance of payments crises.

Foreign trade regulations cover three categories of exports: free exports, licensed exports, and exports to clearing areas. Most exports are free; only those in short supply (which are more expensive to import than produce) require a license. Although budgeted export subsidies have been removed, exporters are now supported by tax rebates on imports needed for production. More directly, exports are stimulated by access to two credit agencies—the Agricultural Fund for short-term credits and the Export Credit and Insurance Fund for medium and long-term credits.

Exports to clearing areas usually are covered under bilateral agreements. In addition to the overall trade protocols, agreements are signed between Yugoslav republics and the clearing partner and between enterprises in both countries. Since clearing trade requires detailed coordination, agreements must be negotiated or approved by the Federal Secretariat for Foreign Trade. The secretariat also must consider the impact of the agreement on clearing balances. Yugoslav enterprises are free to determine their own import requirements and resist buying many of the products contained in the agreements. For this reason surpluses accumulated during most of the 1960's, reaching US\$120 million in 1968. Since then, clearing surpluses have been eliminated through planned

deficits; imports from CEMA countries in particular were encouraged when it was necessary to limit imports from the West in 1970-71.

Imports fall into four categories:

- 1) Free imports, which can be purchased by freely converting dinars into hard currency at the banks.
- 2) The global foreign exchange quota—assigned by the government—which allocates among enterprises the right to purchase a fixed amount of foreign exchange to import nonrestrictive goods from the convertible currency areas.
- 3) Foreign exchange and commodity quotas, which establish quantity and value ceilings for specific products from both convertible and clearing countries.
- 4) Import permits, which control the import (through the global foreign exchange quota) of such items as narcotics, explosives, arms, automobiles, and tractors.

An additional category—conditionally free imports—was discontinued on 1 January 1971. It contained a list of goods which could be freely acquired from the West after specific quantities had been imported from clearing areas.

Although extensively revised in 1971-72, foreign exchange regulations still serve the dual function of promoting exports and limiting imports. Exporters are allowed to retain a percentage of their foreign exchange earnings—a "retention quota"—which can be spent on imports, sold to designated banks, or even transferred to other enterprises to support joint production. Most exporters retain 20% of their foreign exchange earnings, but tourist organizations are allowed 45%, and enterprises that engage in capital construction projects abroad keep 100%.

Enterprises have the right to purchase some foreign exchange from banks. Currency for importing capital equipment may be purchased for dinars in the amount of 10% of the amortization fund for plant and equipment. Additional currency may be purchased from the assigned foreign exchange quota.

The foreign exchange system is to be significantly liberalized in 1973, when a foreign exchange market is scheduled to go into operation. In the market, enterprises and individuals, including foreign firms doing business with Yugoslav parties, may buy and sell dinars against convertible currencies. The market will be run through the banking system and supervised by the National Bank, which will intervene to keep the dinar within range of parity.

Complementing foreign exchange regulations are laws governing the use of credit. Enterprises may freely contract debts up to an amount which can be repaid from the retention quota or amortization funds. Alternatively, enterprises may borrow through the banking system, using foreign exchange allocations to

secure the funds; the banks in turn, borrow from abroad. In addition, the government imposes a limit on the total annual volume of credit transactions.

Besides shifting commodities to different listings and changing quota allotments, the government can regulate trade through the application of customs, tariffs, or through extraordinary measures. In line with the policy to liberalize trade, customs tariffs have been reduced, but they still are a major source of federal revenue. Belgrade also has imposed import surcharges to reduce cash purchases and has required import deposits to limit credit transactions abroad. Finally, the government has had to resort to devaluation to try to offset the impact of chronic inflation on export prices and to reduce the demand for imports.

The strictest control is exercised over consumer goods, which ranged from 15% to 21% of total imports in 1967-70; the commodities least controlled are machinery and equipment used for reproduction, 22% to 25% of total imports. Liberalization has been primarily directed at a third group, raw materials and semimanufactured goods, which accounts for the bulk of imports—57% to 63% in 1967-70. The following tabulation shows the percentages of the total annual value of imports of raw materials and semimanufactures, rounded by category:

	1967	1968	1969	1970
Free .....	26	27	30	36
Conditionally free .....	36	25	22	17
Global foreign exchange quota ..	38	30	33	32
Commodity and foreign exchange quota .....	1	15	12	12
Permit .....	<i>Insig</i>	3	3	2

### 3. Balance of payments

The trade deficits which have accumulated during 1967-71 indicate that the foreign trade system has functioned poorly (Figure 19). The smallest trade deficit during the 1960's was recorded in 1965, when trade still was heavily regulated. Since then, economic decentralization and trade liberalization have reduced governmental control, resulting in autarkic behavior by both republics and enterprises. The system is particularly vulnerable during periods of rapid growth when import demand is high and enterprises, particularly in less developed republics, tend to buy from the West but sell to the easier markets in the East. Trade liberalization has made Yugoslavia more sensitive to world business conditions but also more dependent on imports; the balance of payments and the willingness of trade partners to extend long-term assistance have become the main constraints to economic development.

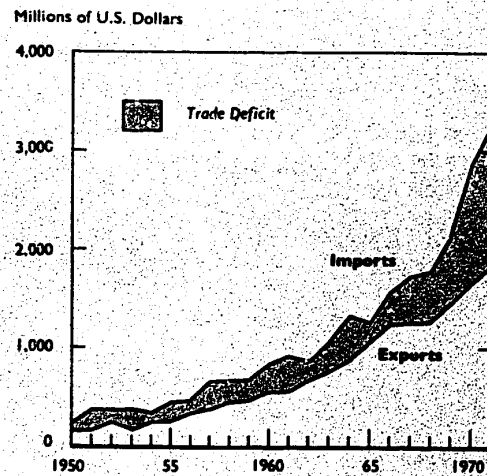


FIGURE 19. Foreign trade

#### a. Commodity trade

Foreign trade has grown rapidly, averaging a 10.2% rate of growth during 1966-71 (in 1965 constant prices), compared with an average annual rate of 7.5% during 1961-65. On the other hand, exports as a share of imports have fallen since the reform of 1965—from 85% in that year to only 56% in 1971. The worsening trade balance resulted in 1971 in a record deficit of US\$1.4 billion, of which \$1.3 billion was in hard currency trade. The rate of growth of exports had slowed down considerably since the mid-1960's; the annual average increase of exports was 12.9% during 1956-65 and only 5.4% during 1966-71 (in 1965 constant prices), falling below the growth of GNP for the first time in the postwar period. Imports, which have always grown rapidly, averaged a 9.4% annual rate of growth during 1956-65 and jumped to 13.5% during 1966-71.

A major reason for the slowdown in exports has been the lag in sales of agricultural products, beverages and tobacco, and industrial raw materials, which together make up over one-fourth of total exports (Figure 20). Common Market barriers, a dip in Western growth rates in 1971, and bad weather in Yugoslavia in 1967-68 and 1970-71 were all factors in the slow growth of these exports. But even aside from trade restrictions, the Western markets for agricultural goods, and for many types of raw materials as well, are slow-growing and highly competitive; future expansion of Yugoslav



FIGURE 20. Composition of exports and imports  
(Percent; listed according to Standard International Trade Classifications)

	1950	1955	1960	1965	1970	1971
<b>Exports:</b>						
Food and live animals.....	21.8 <sup>aa</sup>	23.5	28.9	21.2	15.2	14.2
Beverages and tobacco.....	7.7	7.7	4.7	4.5	3.5	3.4
Inedible crude materials, except fuels....	44.1	29.3	15.7	10.1	9.4	8.2
Mineral fuels, lubricants, and related materials.....	1.2	1.0	0.9	1.0	1.2	1.1
Animal and vegetable oils and fats.....	<i>Insig</i>	<i>Insig</i>	0.2	<i>Insig</i>	0.1	0.2
Chemicals.....	2.7	5.5	4.0	5.5	5.8	7.1
Semimanufactured goods.....	22.2	27.5	23.7	22.7	29.3	27.2
Machinery and transport equipment.....	<i>Insig</i>	1.8	15.0	23.5	22.7	24.5
Consumer and other finished goods.....	0.3	2.8	6.8	11.5	12.7	14.0
Miscellaneous commodities and transactions.....	<i>Insig</i>	0.9	0.1	<i>Insig</i>	0.1	0.1
<b>Imports:</b>						
Food and live animals.....	4.9	27.4	9.2	14.7	7.0	8.9
Beverages and tobacco.....	0.1	0.3	<i>Insig</i>	<i>Insig</i>	0.2	0.2
Inedible crude materials, except fuels....	28.9	17.6	14.3	16.8	10.9	9.6
Mineral fuels, lubricants, and related materials.....	9.3	8.3	5.4	5.6	4.8	5.9
Animal and vegetable oils and fats.....	0.9	1.2	1.4	1.0	0.7	1.5
Chemicals.....	5.0	6.7	8.6	9.2	9.3	9.1
Semimanufactured goods.....	22.7	11.5	20.8	21.7	28.8	28.2
Machinery and transport equipment.....	26.6	25.3	36.9	27.6	33.3	31.3
Consumer and other finished goods.....	1.6	1.6	3.3	3.4	5.0	5.2
Miscellaneous commodities and transactions.....	<i>Insig</i>	0.1	0.1	<i>Insig</i>	<i>Insig</i>	0.1

sales will depend mostly on sluggish factors like population growth rather than on opening new markets.

Sales of semimanufactures, chemicals, machinery, and finished consumer goods all increased as a share of exports during the 1960's. The largest increases were in machinery exports—from 15% of total exports in 1960 to 24% in 1971—and of sales of industrial consumer goods—from only 7% of exports in 1960 to 14% in 1971.

While the structure of exports has changed fairly steadily as the economy matured, the pattern of imports has been much more erratic, reflecting on and off selective controls, periodic shortages of agricultural products, and sharp fluctuations in the rate of investment and industrial growth. During the 1960's, for example, imports of foodstuffs ranged from 7% to 19% of total imports and machinery from 27% to 37%. The most consistent trends have been a rise in imports of chemicals and semimanufactures from 27% to 30% of the total in the early 1960's to 37% to 38% in 1970-71, and a decline in the share of raw materials and fuels from 20% in the mid-1960's to 15% in 1970-71. Purchases of consumer manufactures—still small—grew from 3% of imports in 1960 to 5% in 1970-71.

The share of raw materials and semimanufactures from the convertible currency area rose from 38% of total imports in 1967 to 47% in 1970, while the share in bilateral accounts dropped from 19% to 16%. Imports of machinery and equipment followed a similar pattern, rising from 14% to 18% in the convertible area and falling from 8% to 3% in the clearing areas. Imports of consumer goods from all areas declined as a share, falling from 13% to 10% in convertible trade and from 8% to 6% in bilateral trade.

After shifting away from the Communist countries during the last half of the 1960's, Yugoslavia's trade with these countries increased sharply in 1971, reflecting efforts to ease the large hard currency deficit. This trade, which had slid from 35% of total turnover in 1965 to 25% in 1970, was back up to 29% in 1971 (Figure 21). The Communist countries, particularly the U.S.S.R., have provided Yugoslavia's best markets for machinery, transport equipment, consumer goods, and other finished manufactures, most of which find few outlets in the West. A more than proportionate share of these exports come from Yugoslavia's less developed republics. In return, the Communist countries have been Yugoslavia's most

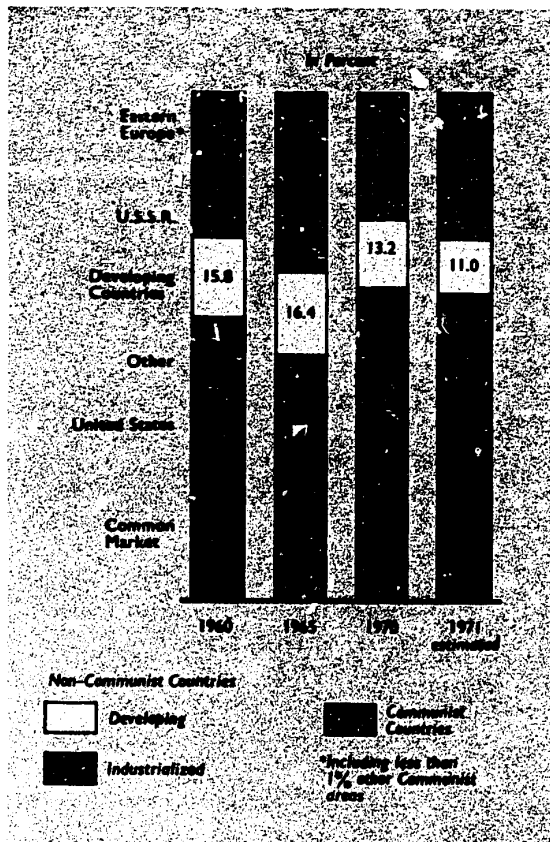


FIGURE 21. Direction of foreign trade

important source for fuels and other industrial inputs—especially iron and steel and raw cotton—and certain types of machinery including metalworking and agricultural equipment, and military hardware.

In February 1972, the U.S.S.R. provided a major impetus to Yugoslavia's trade with the Communist countries—a US\$130 million credit for the development of an aluminum combine in Bosnia and Hercegovina. The protocol calls for the Yugoslavs to ship all alumina produced by the combine and 500,000 tons of bauxite for 10 years—part of which will be in repayment of the loan. At the same time, the projected turnover in the Soviet-Yugoslav trade agreement for 1971-75 was increased by \$540 million to \$3.6 billion—50% more than deliveries in 1966-70. In November 1972 the Soviets extended a substantial credit line—at least \$500 million—for developing mineral resources in Yugoslavia's backward regions. Another deal—\$100 million barter arrangement between car manufacturers in the two countries—was signed early in 1972.

Yugoslavia's trade with the West—in the 1950's basically an exchange of Yugoslav food, live animals, and nonferrous metals in return for machinery and emergency food supplies—was broadened considerably in the 1960's. A flourishing two-way trade in semimanufactures—chemicals, and iron and steel, in addition to nonferrous metals—has been developed. In addition, Yugoslavia is now sending some finished products—furniture, clothing, and footwear.

Yugoslavia's main Western partners are West Germany, Italy, and the United States, countries which have also supplied the bulk of the US\$5.7 billion in assistance received by Yugoslavia since World War II. Trade with the United States, running at about \$300 million a year, involves Yugoslav sales of canned meat, tobacco, furniture, copper and brass products, and cable and wire, in return for U.S. vegetable oils, textile materials, coal and coke, a variety of chemicals, and often wheat. The low share of Yugoslav deliveries of unprocessed food and raw materials sets the trade apart from that with closer partners in Western Europe.

Little progress has been made in increasing trade with developing countries. Although total trade increased 54% during 1966-70, the share of trade dropped from 16.4% to 13.2%, and in most years there was a trade deficit. The largest category of Yugoslav exports is machinery and equipment, with the greatest gains recorded in sales of the agricultural, mining, and construction equipment. Yugoslavia imports raw materials, including oil, tin, rubber, and textile materials, and food—coffee, cocoa, and fruit.

*b. Invisibles*

Yugoslav earnings from tourism, transportation, workers' remittances, and other services and transfer payments have helped to offset the large trade deficits, or at times have encouraged larger imports. The largest invisible item in recent years has been remittances from the nearly 1 million Yugoslavs working abroad, mainly in West Germany. These earnings leaped from US\$89 million in 1967 to about \$630 million in 1971 (Figure 22).

Formerly the most dynamic growth was in earnings from tourism (Figure 23); net earnings boomed from only US\$4 million to \$6 million annually in 1955-60 to about \$175 million in 1971. Since 1969, however, net tourist receipts have fallen below expectations, actually declining in 1970. Gross earnings were limited by peak-season capacity constraints, and were offset to some extent by increases in the number of Yugoslavs going abroad—Yugoslav tourists spent about \$113 million in 1970. Earnings in 1972 were hurt by a

FIGURE 22. Balance of payments\*  
(Millions of U.S. dollars)

	1967	1968	1969	1970	1971
					<i>Preliminary</i>
Goods, services, and transfers:					
Trade balance.....	- 455	- 532	- 660	- 1,194	- 1,439
Exports (f.o.b.).....	1,253	1,265	1,475	1,680	1,814
Imports (c.i.f.).....	- 1,708	- 1,797	- 2,135	- 2,874	- 3,253
Net services and transfer payments.....	373	426	552	854	1,115
Freight and transportation.....	140	144	163	201	244
Foreign travel.....	98	136	168	146	175
Investment income.....	- 67	- 77	- 88	- 110	- 115
Workers' remittances.....	89	122	206	440	630
Transfer payments.....	32	38	45	61	111
Other services.....	81	63	58	116	70
Balance on the current account.....	- 82	- 106	- 108	- 340	- 324
Nonmonetary capital:					
Long-term capital.....	151	165	253	269	295
Loans received.....	334	390	517	636	640
Loans paid.....	- 200	- 219	- 239	- 335	- 420
Agricultural commodity credit.....	17	- 6	- 25	- 32	75
Short-term capital.....	- 4	- 102	- 67	- 28	- 127
Export credit.....	- 39	- 46	- 92	- 50	- 72
Other, including errors and omissions.....	35	- 50	25	22	- 55
Allocation of SDR's monetary capital.....	...	...	...	25	22
SDR's.....	...	...	...	- 6	4
Gold and convertible foreign exchange.....	...	- 52	- 158	109	14
IMF account.....	33	- 18	- 38	- 60	71
Bilateral balances.....	- 94	48	58	71	45
Bank credit.....	- 4	65	60	- 40	...

... Not pertinent.

\*Based on latest available IMF data. Figures may not add to totals because of rounding.

smallpox epidemic during March-April, even though there were only a few cases reported in the major tourist area of Croatia. Tourism has considerable potential for expansion in the 1970's, providing that construction of new facilities along the seacoast can be accelerated to meet demand and prices are held to their current relatively low level. Yugoslavia is benefiting from the U.N. Adriatic project involving the building of beach and ski resorts in Montenegro, which will make tourism the leading industry in that less developed republic.

Net earnings from transportation, mainly from the merchant fleet and from transit traffic, have grown along with the general expansion of trade and travel from US\$140 million in 1967 to \$244 million in 1971. In effect, these earnings are lower because part of Yugoslav expenditures on transport appear in import data rather than in the services account. Other net services and transfer payments accounted for another \$180 million in earnings in 1971, while the interest payments on Yugoslavia's growing foreign debt have become a large negative item in the services account—\$115 million in 1971.

Only in 1965, under a strong regime of import controls, did invisible earnings cover the trade deficit; in fact, a surplus of US\$62 million on current account was achieved that year. With the exception of that interruption, Yugoslavia's balance of payments deficit has continued to mount, reaching a cumulative total of nearly \$5.8 billion for the period 1949-71.

Nearly all of Yugoslavia's balance of payments deficit has been in hard currency—in fact, in 1970, the hard currency deficit on current account was US\$374 million, compared with a total deficit of \$341 million. In 1971, when Yugoslavia ran a large imbalance with the CEMA countries, \$242 million, or 75% of the overall deficit, was in hard currency.

### c. Foreign assistance

Balance of payments deficits forced Yugoslavia to obtain over US\$5.7 billion in foreign assistance in 1949-71. About \$3 billion of the total has come from the United States and about \$950 million from Western European countries. The IBRD has supplied about \$585 million in long-term loans and the IMF



FIGURE 23. Dubrovnik, a leading tourist center on the Adriatic coast. Tourism, already a significant source of foreign exchange, has considerable potential for expansion.

has provided over \$400 million. Finally, about \$800 million has been supplied by the U.S.S.R. and other Communist countries.

U.S. credits since 1966 have been largely for development, including some US\$53.2 million from or guaranteed by the Export-Import bank (excluding 1971). Yugoslavia previously had been a major recipient of surplus agricultural commodities, particularly wheat, under medium- and long-term credits authorized by Title IV of P.L. 480. Yugoslav participation in this program was terminated in 1966 by the provisions of the Findley Amendment. Yugoslavia has continued to buy some wheat, cotton, and other commodities under less favorable credit terms of the Commodity Credit Corporation. Other main Western creditors are West Germany, Italy, the United Kingdom, and France, and small credits have also been granted by Canada and Japan.

Twice since the reform of 1965, the Yugoslavs have come to the West for debt rescheduling and new emergency assistance. Some US\$58.5 million was rescheduled by the United States, and through April 1972 about \$375 million had been received from other Western countries and institutions to tide Yugoslavia through the balance of payments crisis of 1970-71.

The Communist countries have provided only moderate credits in comparison with Western assistance. In 1956, the U.S.S.R., East Germany, Czechoslovakia, and Poland cultivated rapprochement with Yugoslavia by extending credits totaling US\$464 million; however, only \$109 million of these

credits were drawn before relations again cooled and the credit line was suspended. Since relations were rekindled in 1962, Soviet credits—about \$360 million—have gone mainly into reconstruction of Skopje, following the earthquake of 1963, and into the Iron Gate project. Czechoslovakia has provided \$110 million and East Germany \$66 million, both for the development of metallurgy. Smaller credits, \$30 million apiece, were provided by Poland and Romania.

Yugoslavia itself has pursued a policy of offering less developed countries some credits—reportedly over US\$600 million since 1950 to 27 countries in Africa, Asia, and Latin America. Many of the recipients, however, have been slow in drawing on these loans.

#### 4. Foreign investment

In 1967 Yugoslavia became the first Communist country to permit foreign investment on a joint basis with domestic enterprises. The Yugoslavs were motivated by the prospect of achieving a faster rate of development and eventually easing the strain on their balance of payments. In addition to capital inflow, gains would evolve from the introduction of new technology, from access to better managerial skills, and from the creation and expansion of export markets. Prospective foreign investors were offered cheap labor and raw materials.

Initially, the foreign partners were limited by law to a maximum share of 49% in the venture, were required

to reinvest 20% of profits, and were taxed at a rate of 35% of their income (or progressively less if more than the required minimum profits were reinvested). Other obligations of the foreign partner were set out in individual contracts, some of which included training of personnel, marketing, and supplying production inputs. Although management rights also differed between contracts, ultimate control rested with the domestic partners.

The Yugoslavs, expecting a vast inflow of capital, were shocked by the limited response to their investment law. During the first 3 years, 1968-70, 32 agreements were concluded but only for a total of US\$71 million in foreign investment. Several factors were responsible: The law was complicated and full of special provisions; Yugoslav officials were fearful of the impact of joint investments on their system of workers' self-management; and foreign businessmen only vaguely understood that system and its provisions for workers councils and "right of use," rather than ownership, of capital. Equally important, potential foreign investors were deterred by the highly unstable Yugoslav economy and the constant changes that had been made in government economic controls since 1965.

Beginning in late 1970, Belgrade took a number of steps to make foreign investment more attractive. Aided by the International Finance Corporation, a banking consortium was created—the International Corporation for Investment in Yugoslavia (ICIY). The ICIY was organized to provide investment information, to smooth legal pathways, and to attract investment by providing "seed money." Then, in February 1971, foreign investment regulations were liberalized. The 20% reinvestment requirement was removed, the ability to repatriate capital was guaranteed, and the foreign investor was insulated against possible adverse legislative changes that might be made after his investment. Finally, under special circumstances the foreign investor could obtain shares in the enterprise equal to or even larger than those held by the domestic partner.

These efforts, however, could not overcome the impact of the economic crisis in 1971; 13 new contracts were signed during the year but they involved only US\$12.4 million in foreign investment. In 1972, with the economy stabilizing, the outlook was brighter. Moreover, provisions of OPIC (Overseas Private Investment Corporation) guarantees and other services to U.S. investors may lead to a major increase in U.S. investment in Yugoslavia.

## Places and features referred to in this Chapter

	COORDINATES	
	° 'N.	° 'E.
Bar.....	42 05	19 06
Belgrade.....	44 50	20 30
Bor.....	44 06	22 06
Buzet.....	45 24	13 59
Celje.....	46 14	15 16
Dalmatia ( <i>region</i> ).....	43 00	17 00
Danube River ( <i>strm</i> ).....	45 20	29 40
Drava River ( <i>strm</i> ).....	45 33	18 55
Dubrovnik.....	42 39	18 07
Iron Gate ( <i>gorge</i> ).....	44 41	22 31
Jesenice.....	46 27	14 04
Kidričevo.....	46 24	15 47
Mežica.....	46 31	14 52
Majdanpek.....	44 25	21 56
Mostar.....	43 21	17 49
Pančevo.....	44 52	20 39
Pula.....	44 52	13 50
Raša.....	45 05	14 06
Rijeka.....	45 21	14 24
Sarajevo.....	43 50	18 25
Sisak.....	45 29	16 22
Skopje.....	42 00	21 29
Smederevo.....	41 39	20 56
Split.....	43 31	16 26
Svetozarevo.....	43 59	21 15
Titograd.....	42 26	19 16
Titov veles.....	41 42	21 48
Treпча.....	42 49	19 49
Zagreb.....	45 48	16 00
Zastava.....	45 35	15 14
Zenica.....	44 13	17 55
Zvornik.....	44 23	19 07