Directorate of
Intelligence

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The Soviet Economy in a Global Perspective

A Research Paper

March 1989

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The Soviet Economy in a Global Perspective

Summary

Information available as of 31 December 1988 was used in this report.

When Mikhail Gorbachev became General Secretary of the Communist Party of the Soviet Union in 1985, he assumed command of an economy that was impressive in terms of size and historical performance:

- The estimated value of the USSR's gross domestic product (GDP) was second only to that of the United States.
- The Soviet Union ranked first in the world in the annual production of oil, iron ore, and steel and was the second largest producer of machinery.
- Between 1950 and 1975 Soviet economic growth had outstripped that of the United States, and the Soviet economy had increased from about one-third to almost 60 percent of the size of the US economy.

Since the mid-1970s, however, the economy had been faltering. Soviet growth had decreased sharply, and by the late 1970s the ratio of Soviet to US GDP had slipped. The USSR now lags the West even further in many important respects:

- Soviet labor productivity as measured by GDP per worker is less than half that of the United States, below that of most developed countries, and even below that of some East European countries.
- The West's technological lead over the USSR is large and increasing in fields such as computer-operated machine tools and computer software, in which the West is as much as 12 years ahead.
- Valuable energy resources are being used far less efficiently than in most other developed countries

Indeed, although clearly a military superpower, the Soviet Union has an economy that in many ways is like that of a developing country. The level of per capita consumption in the USSR, for instance, is far below that of the developed Western countries and Japan. It is about one-third that of the United States and is more comparable to that of countries such as Mexico and Brazil. Moreover, the Soviet pattern of consumption and output more closely resembles that of less developed nations than that of the West:

- The per capita consumption of consumer durables is below that of many Latin American countries, and stocks of high-quality consumer durables such as passenger cars and modern appliances are extremely low.
- Per capita expenditures on consumer services are markedly lower than in the developed West and only slightly higher than in such countries as Uruguay and Portugal.

- Compared to other nations at a similar level of development, the Soviet Union has a much larger agricultural sector. Indeed, the share of agricultural output in GDP in the USSR is similar to the share in Turkey and the Philippines.

In addition, the USSR—a large net importer of manufactured goods and an exporter primarily of raw materials and fuels—has a trade pattern more like that of Egypt and Mexico than that of the major industrial states.

The Soviets have set economic targets that, if realized, would narrow the gap between themselves and the West. We believe, however, that these targets are out of reach. We expect that the Soviet Union will have difficulty maintaining its position relative to the West, much less closing the gaps in technological development, productivity, or living standards.

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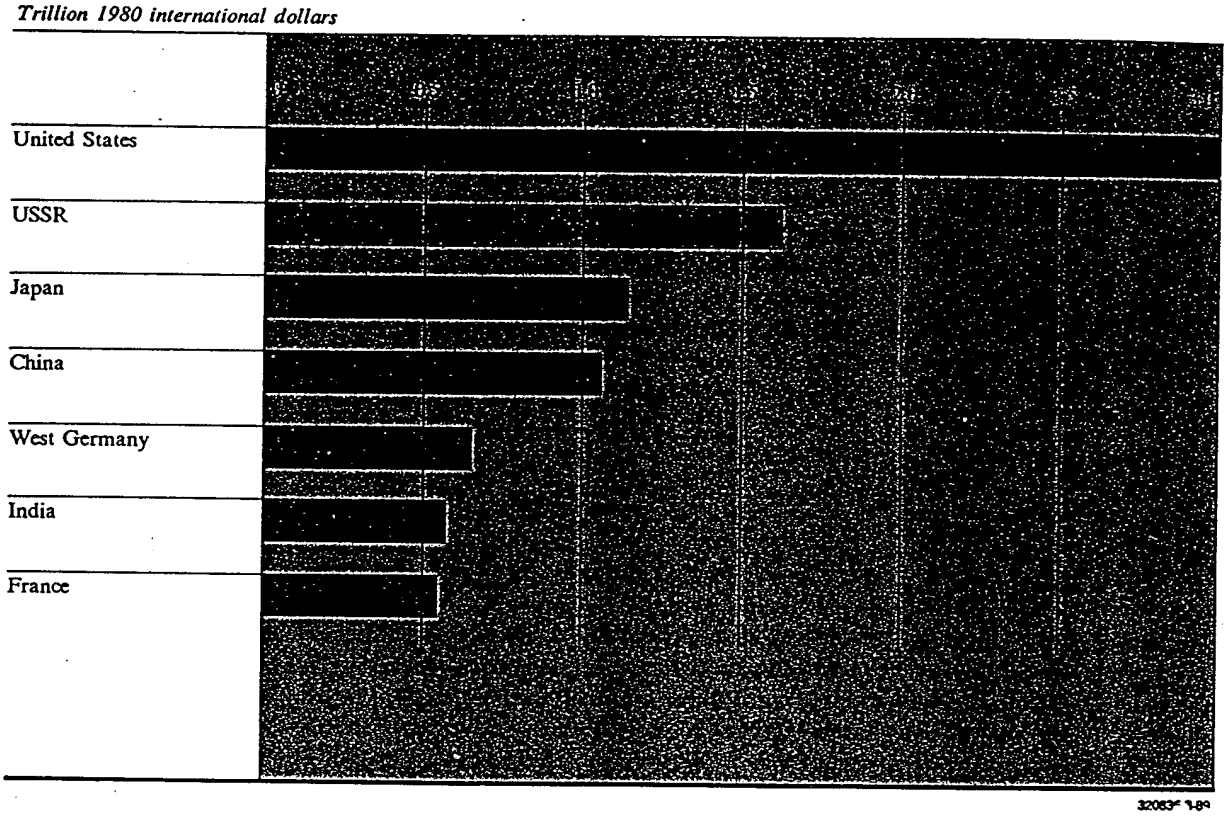
Scope Note

General Secretary Gorbachev's commitment to revitalizing the Soviet economy stems, in large part, from a realization that the USSR is falling further behind the industrialized West in its pace of technological advance and its citizens' quality of life. This paper seeks to put Gorbachev's concerns in context by comparing the USSR's economic performance with that of other countries—ranging from the least developed nations in Africa to the highly developed, modern ones of the West. The paper does not attempt to provide a definitive analysis of Moscow's economic difficulties or to estimate the future course of economic development in the USSR.

To compare the economic performance of various countries, estimates of the value of their output of goods and services have been converted from indigenous currencies into dollars using purchasing power parities, as described in an appendix. Most comparisons are made for 1985—the last year for which data are available and the year Gorbachev became General Secretary—but we believe they reflect reasonably well the economic conditions in the USSR today. Such estimates should not be regarded as precise measures. They provide, at best, an approximation of the relative levels of economic development and performance among countries of the world with very diverse systems

Readers should also be aware that, in contrast to this paper, some CIA publications use market exchange rates to convert estimates of economic output in other currencies into dollars. As a result, some of the estimates presented here differ from those of other CIA publications

Figure 1
Gross Domestic Product of the Seven Largest Economies, 1985



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Methods and Sources

To compare the Soviet Union's economic performance with that of other countries—and, indeed, to make any valid international comparison—it is necessary to express the activities of the countries being compared in common terms. The terms used in this report include physical quantities, such as numbers of automobiles and televisions, and monetary measures. For the most part, the monetary measures are taken from the United Nations' International Comparison Project (ICP), which uses "purchasing power parities" (PPPs)—currency conversion factors for specific types of goods and services—to convert the reported value of various nations' goods and services from indigenous currencies into a common set of prices.

The use of PPPs is a more appropriate method for making international comparisons of the volume of production and consumption of final goods and services than is the use of market exchange rates. Because PPPs are synthetic indicators based on a comparison of prices for a specific sample of goods, they do not display the volatility of exchange rates, which can vary sharply from day to day. In addition, because PPPs vary from one category of goods and services to another, they "correct" for the distortions in a given country's price structure resulting from price subsidies and highly differentiated excise taxes. In contrast, the use of market exchange rates, which must be applied indiscriminately to all the goods and services produced in a given country, would completely mirror that country's price structure, distortions and all. The PPPs used in the ICP, moreover, are designed to mitigate the different types of distortions that inevitably result when one country's output and, thereby, its resource allocation choices are expressed in another currency. It does so by the use of so-called international dollar measures, which reflect world average prices rather than those of any one nation.

The Soviet Union, unfortunately, has never participated in the ICP. As a result, we lack the type of detailed dollar measures of Soviet economic performance that we have for the participating countries. We have, however, been able to link the CIA's dollar estimates of Soviet production and resource allocation—generated with PPPs developed for US-Soviet comparisons—to the ICP estimates. A description of the procedures used to accomplish this linking and additional information on purchasing power parities and "international dollars" are presented in appendix A.

Gorbachev's Inheritance: A Large but Faltering Economy

The Soviet economy is the second largest in the world (see figure 1) and, until recently, it had grown at an impressive rate. Whereas in 1950 the Soviet economy was about one-third the size of the US economy, by 1985 it was more than one-half the US economy's size and approximately 50 percent greater than the size of the Japanese or Chinese economies.[1] The gross domestic products (GDPs) of West Germany, India, and France are about one-third the size of the Soviet GDP.[2] (The inset provides a broader comparison of the economies of Western and Eastern Bloc nations.)

[1] Estimates of the size of the Chinese economy vary widely. To avoid using official Chinese data—which probably understate the value of services and may not be calculated according to Western practices—converted to US dollars using administratively set exchange rates, we have elected, for the purposes of this paper, to estimate Chinese gross domestic product in dollars using the physical indicator method (see appendix B). (U)

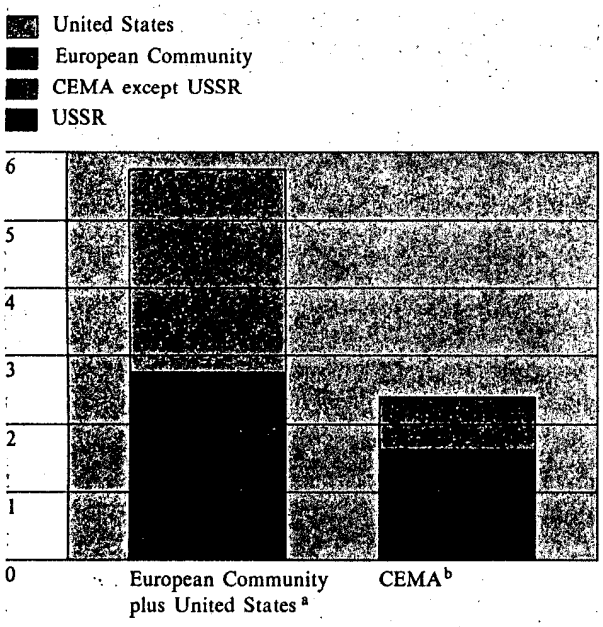
[2] Throughout this paper, GDP will be used for comparisons of total economic output rather than the more familiar gross national product (GNP). The difference between the concepts is slight. GDP equals GNP less payments for labor and capital services exchanged with other countries.

A Comparison of Economic Strength, East Versus West

A comparison that juxtaposes the economies of the CEMA nations as a group with those of the United States and nations of the European Community provides an interesting perspective on how well the Communist Bloc has fared relative to the capitalist West. The European Community alone has a combined GDP roughly one and a half times larger than that of the Soviet Union and about 10 percent larger than that of all of CEMA. When the United States is added, Western GDP is more than twice as large as that of the Soviet Bloc. (U)

Gross Domestic Product, East Versus West, 1985

Trillion 1980 international dollars



[a] European Community member nations are Belgium, Denmark, France, West Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, and the United Kingdom.

[b] CEMA member nations are Bulgaria, Cuba, Czechoslovakia, East Germany, Hungary, Mongolia, Poland, Romania, the USSR, and Vietnam.

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Table 1
Soviet Rank in Production of Selected Industrial Goods

	1913		1987	
	World	Europe	World	Europe
Electric power	8	6	2	1
Petroleum	2	1	1	1
Coal	6	5	3	1
Steel	5	4	1	1
Cotton fiber	5	1	3	1
Iron ore	5	4	1	1
Coke	4	3	1	1
Cement	5	4	2	1
Granulated sugar	4	2	1	1

Source: *Narodnoye khozyaystvo SSSR v 1987*, p. 625.

This table is Unclassified.

The Soviet Union outproduces most or all Western nations in many major industrial commodities. In fact, the USSR ranks first in the world in the production of such important commodities as oil, crude steel, and iron ore (see table 1). (U)

Relative Level of Economic Development

Although the Soviet Union's rank in terms of overall GDP or the production of specific types of goods is impressive at first glance, a comparison of per capita GDP among a large sample of countries gives a different picture (see figure 2). The Soviet Union ranked well below Western developed nations but above the newly industrialized and less developed Western countries in 1985. Soviet per capita GDP that year was less than half that of the United States, for instance, but 30 to 50 percent larger than that of Mexico or Greece. (U)

Figure 2
Per Capita GDP, 1985

Thousand 1980 international dollars

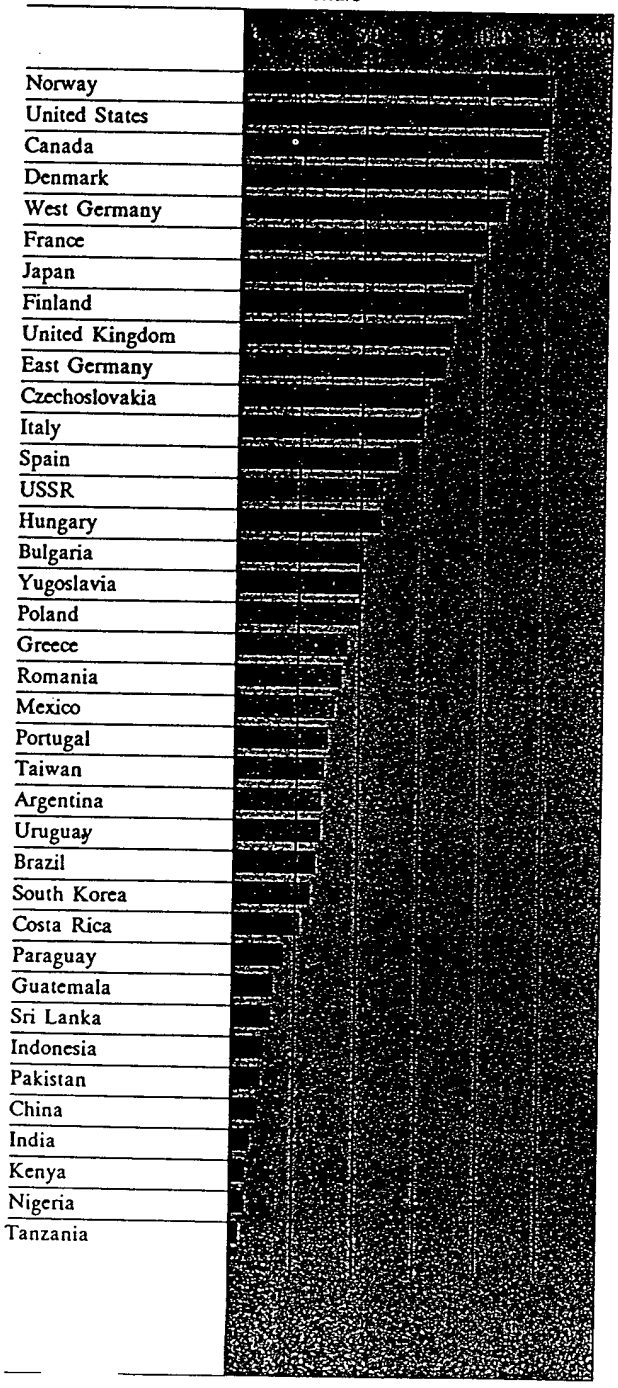
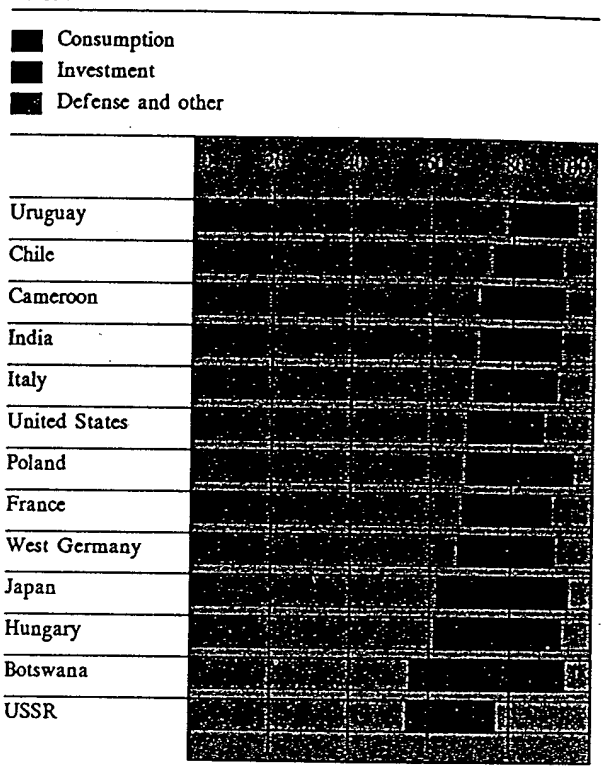


Figure 3
Composition of GDP, 1980

Percent



Note: Most shares are calculated using expenditure data in each nation's indigenous currency from Phase IV of the UN International Comparisons Project. Soviet shares are at 1982 factor cost.

Dividing the Pie

Comparisons of per capita GDP do not necessarily provide an accurate indication of relative standards of living, in part because the share of GDP allocated to consumers varies considerably among countries. Indeed, the share of consumption in Soviet GDP is small. (Figure 3 illustrates the share in 1980, the latest year for which data are available.)[1] In the United States, about 69 percent of GDP went to consumption in 1980, compared with only 55 percent

[1] The Soviet share is calculated from ruble estimates of consumption and total GDP at adjusted factor cost—that is, in prices "corrected" for the distortions resulting from the inclusion of large and highly differentiated excise taxes, subsidies, and profit rates in the state-administered, "established" prices of Soviet goods and services.

in the USSR. In addition, the quality of goods produced in the USSR—which is notoriously poor in general—is particularly poor with respect to consumer items. Quantitative comparisons of this type do not fully account for such differences in quality and therefore probably overstate the Soviet position (see inset on page 5).

As a result of the low priority accorded to consumer needs, Soviet per capita consumption, valued in international dollars, is far below that of the major developed nations—about one-third that of the United States and about 55 percent that of Japan and most of the major West European nations (see figure 4). The Soviet Union, in fact, was more comparable to countries such as Mexico, Argentina, and Brazil in terms of the level of per capita consumption in 1985. Moreover, the Soviet position relative to the rest of the world has not improved over the past two decades. Although the Soviet Union was able to narrow somewhat the difference in per capita consumption between itself and the United States before 1970, since then the gap has remained steady. Moreover, the gap between the Soviet Union and most developed nations has steadily widened, and, in recent years, several newly industrializing nations such as Brazil and Korea have made significant gains relative to the Soviet Union (see figure 5).

* Although the Soviet population is becoming increasingly aware of the way in which people of other nations live, the average citizen is probably more apt to compare his quality of life with that of his parents or grandparents than with Westerners. Therefore, these conclusions about relative living standards may not reflect the perceptions of Soviet consumers

Figure 4
Per Capita Consmption, 1985

Thousand 1980 international dollars

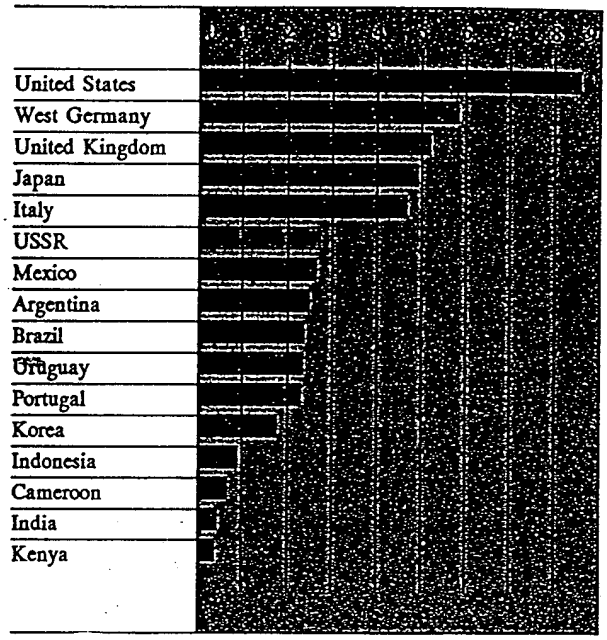
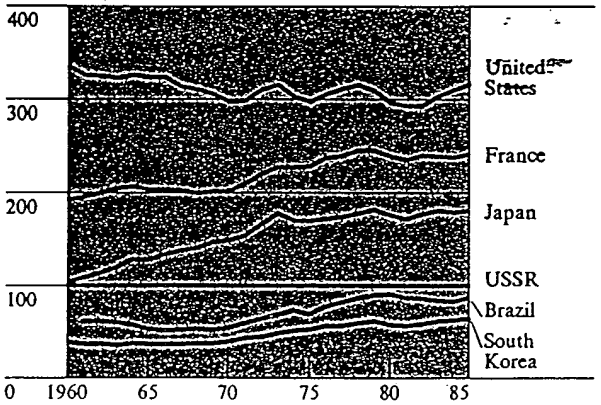


Figure 5
Per Capita Consumption, 1960-85

Index: USSR = 100



Examining Quality Differences

The state of affairs in the entire national economy will depend on how things will proceed with raising the quality of output.

Mikhail Gorbachev
5 November 1986

Although measures expressed in value terms—for example, in dollars—have the potential of being able to reflect differences in quality as well as quantity, the comparisons of the economies of the USSR and developed Western nations made in this paper do not fully take into account the generally poor quality and narrow assortment of goods and services available in the USSR. Soviet machinery, for example, tends to be technically inferior—that is, it does not have the capabilities of Western counterparts—and of lower quality—for instance, it is usually less durable. A recent article in the Soviet press reported that factory-fresh Soviet tractors had to be completely overhauled by the Western distributor before they could be sold to Western buyers. According to the author, such critiques, which would make any Soviet person who cares for the honor of his country blush, are unfortunately not isolated. Because value-based indicators used in this paper to compare the USSR with the developed countries do not fully account for some aspects of quality, such as durability and convenience, they probably overstate the Soviet position.

This bias is particularly strong in comparisons of living standards. Deficiencies in style, design, and attractiveness of Soviet consumer items are not taken into account in our calculations, nor is the limited choice available to Soviet consumers. Numerous products that are common in Western households—for example, dishwashers and air conditioners—are either not produced at all or produced in minuscule quantities in the USSR. Nor do the comparisons take into account the inordinate amount of time Soviet consumers spend in line or trudging from store to store in search of desired items, and the notoriously poor quality of consumer services.

The current regime is clearly concerned about the low quality of Soviet products. Gorbachev, in fact, has made improving product quality one of the principal goals of his program to revitalize the Soviet economy. Speaking before a special session of the Council of Ministers in June 1988, Premier Nikolay Ryzhkov bitterly complained about the "quality of our entire life." In a newspaper interview, Abel Aganbegyan identified the "diktat of the producer" as the source of the problem. The Soviet economist summarizes the problem as follows: "Since the producer is not interested in the taste and demands of the consumer, he actually forces the consumer to accept goods which are of no use to anyone. . . . As absurd as it may sound, [this] is in conformity with the logic of the shortage economy, which involves the total separation of production from the needs of society."

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Patterns of Consumption Expenditures in Indigenous Currencies

In comparisons of similar nations' economies, patterns of consumption are often examined in terms of indigenous currency expenditures. This method has the advantage of reflecting the way in which consumers allocate their budgets, based on the prices they actually face in the marketplace. If nations' price structures are very different, however, identical expenditure distributions in two or more countries could result in quite different patterns of actual consumption. That is, if food is cheap relative to consumer durables in one country while in another country the reverse is true, it would require quite different expenditure patterns by the nations' respective consumers to arrive at the same ratio of food to durables in both nations.

The table below shows the pattern of consumption expenditures for the 12 nations in table 2, calculated in indigenous currencies. Comparing the two tables, the significant differences in price structures in the various economies are evident. For example, in international dollar terms, more than one-fifth of Soviet consumption consists of household services, but because of the very low prices of these services in the Soviet Union, they make up only 11 percent of expenditures.

Consumption Expenditure Patterns in Selected Countries, 1985

Percent of total consumption expenditures

	Food	Soft Goods	Consumer Durables	Health	Education	Household Services
Sweden	21.0	10.5	10.2	11.3	3.8	38.5
United States	14.6	17.7	12.6	13.8	8.2	8.1	25.6
Japan	26.4	10.1	7.1	2.6	7.5	37.9
West Germany	18.5	19.6	13.7	9.0	3.6	31.0
United Kingdom	26.0	10.2	13.0	7.4	6.2	26.2
France	23.9	14.6	11.3	10.2	7.6	32.3
Italy	28.6	16.6	11.3	7.5	7.0	28.5
USSR	45.2	21.7	11.5	3.8	6.2	11.6
Portugal	43.2	16.9	9.6	4.2	4.3	21.8
Ireland	38.9	10.7	8.4	9.5	6.5	26.0
Greece	41.3	15.4	6.5	4.7	4.6	27.5
Turkey	43.6	24.4	9.8	2.1	1.3	18.8

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Table 2
Consumption Patterns, 1985

1980 international dollars per capita

	Food	Soft Goods	Consumer Durables	Health	Education	Household Services	Total
Sweden	788 (16.7)*	471 (10.0)	612 (13.0)	678 (14.4)	368 (7.8)	1,785 (38.0)	4,703 (100)
United States	1,612 (18.9)	983 (11.5)	1,440 (16.9)	630 (7.4)	572 (6.7)	3,304 (38.7)	8,542 (100)
Japan	968 (19.7)	549 (11.2)	477 (9.7)	632 (12.9)	288 (5.9)	1,994 (40.6)	4,909 (100)
West Germany	1,233 (21.2)	1,080 (18.6)	1,026 (17.6)	497 (8.5)	313 (5.4)	1,670 (28.7)	5,819 (100)
United Kingdom	1,342 (25.9)	661 (12.8)	679 (13.1)	435 (8.4)	295 (5.7)	1,762 (34.1)	5,174 (100)
France	1,705 (26.2)	1,140 (17.5)	816 (12.5)	624 (9.6)	374 (5.7)	1,849 (28.4)	6,509 (100)
Italy	1,317 (28.3)	756 (16.3)	617 (13.3)	268 (5.8)	366 (7.9)	1,327 (28.5)	4,651 (100)
USSR	844 (31.1)	386 (14.2)	194 (7.2)	200 (7.4)	501 (18.5)	585 (21.6)	2,711 (100)
Portugal	719 (31.6)	318 (14.0)	123 (5.4)	114 (5.0)	248 (10.9)	751 (33.0)	2,274 (100)
Ireland	955 (34.1)	330 (11.8)	238 (8.5)	240 (8.6)	229 (8.2)	810 (28.9)	2,801 (100)
Greece	1,262 (39.8)	449 (14.2)	145 (4.6)	136 (4.3)	157 (5.0)	1,017 (32.1)	3,167 (100)
Turkey	722 (45.1)	341 (21.3)	130 (8.1)	31 (1.9)	76 (4.8)	299 (18.7)	1,599 (100)

* Percent of total consumption in parentheses.

Living Standards

Consumption Patterns. This section compares the flow of consumer goods and services in the USSR with that in a cross section of other countries. Here, as throughout most of this paper, "international dollars" are used to compare patterns of actual consumption to remove the effects of differences in relative prices among countries (see table 2). These data do not show how Soviet consumers—or consumers in any other country—actually disperse their money income; rather, they illustrate the mix of goods and services actually acquired by consumers. (The inset discusses patterns of consumption expenditures calculated in indigenous currencies.

According to these data, consumption patterns in the USSR differ markedly from those in the developed Western countries. Food, for example, accounts for about one-third of total consumption in the USSR, valued in international dollars, while the corresponding share in most developed Western countries is closer to one-fifth or one-fourth. The share of consumer services in total consumption in the USSR is small compared with that of Western nations—about 22 percent in the Soviet Union versus 39 percent in the United States and 41 percent in Japan. Consumer durables also make up a relatively small share of

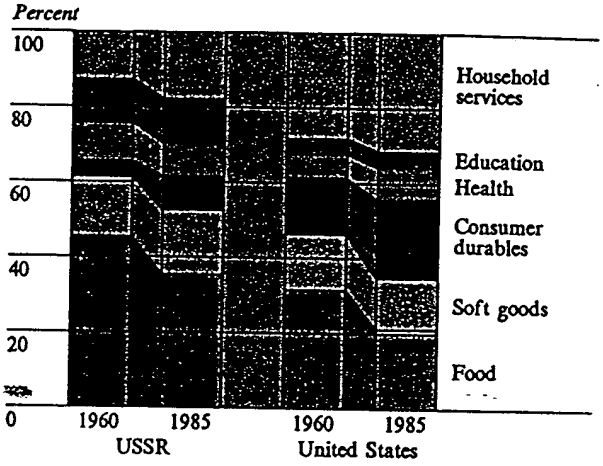
Soviet consumption. On the other hand, the very large share of consumption that is directed to education reflects the fact that the Soviet Union provides universal elementary and secondary education to its citizens and offers a university education to a higher percentage of its people than any Western nation except the United States and Canada

Consumption patterns in the USSR have changed substantially during the past several decades, but the Soviet pattern in 1985 is far more similar to that of the United States in 1960 than in 1985 (see figure 6). The share of food in overall consumption, for instance, dropped in the United States and the Soviet Union, although the Soviet share in 1985 was still larger than the US share in 1960. The percentage of consumer durables in Soviet consumption was almost twice as high in 1985 as in 1960, yet this 1985 share was about 60 percent of that found in the United States in 1960. Similarly, despite substantial growth in Soviet household services, the share in 1985 was still only about 55 percent of the US share.

Food. The level of per capita food consumption in the Soviet Union in 1980—valued in international dollars—was well below the level in the United States and the developed West European nations and was even below that of many Latin American and East European countries (see figure 7). However, according to data collected by the Food and Agriculture Organization of the United Nations, the nutrient content of the Soviet food supply closely resembles that of Western nations.[5] The number of calories available per capita in the USSR nearly matches that in the United States and exceeds that of several developed OECD nations. Similarly, the Soviet protein level falls well within the range of that typical of developed Western nations, although the source of the nutrients differs sharply (see figure 8). Nearly half of the calories in the Soviet food supply, for instance, are provided by grain products and potatoes—compared with one-fourth in the United States. The relative

[5] See also Ann M. Lane, Ruth M. Marston, and Susan O. Welsh, "The Nutrient Content of the Soviet Food Supply and Comparisons with the US Food Supply," *Gorbachev's Economic Plans* (Washington, DC: Joint Economic Committee, US Congress, 1987), Vol. 2, pp. 79-95.

Figure 6
Consumption Patterns in the USSR and the United States, 1960 and 1985



Note: Because values in international dollars are not available for 1960, all data are based on the geometric mean of shares calculated for each country in both rubles and dollars.

Figure 7
Per Capita Food Consumption, 1980

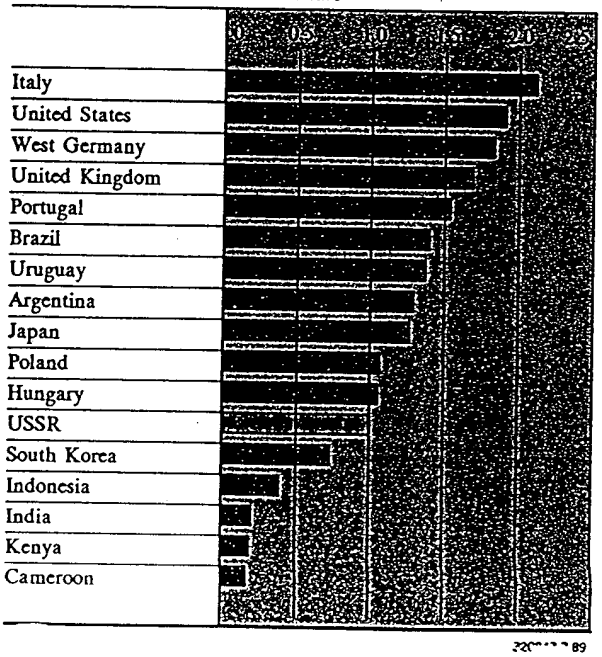
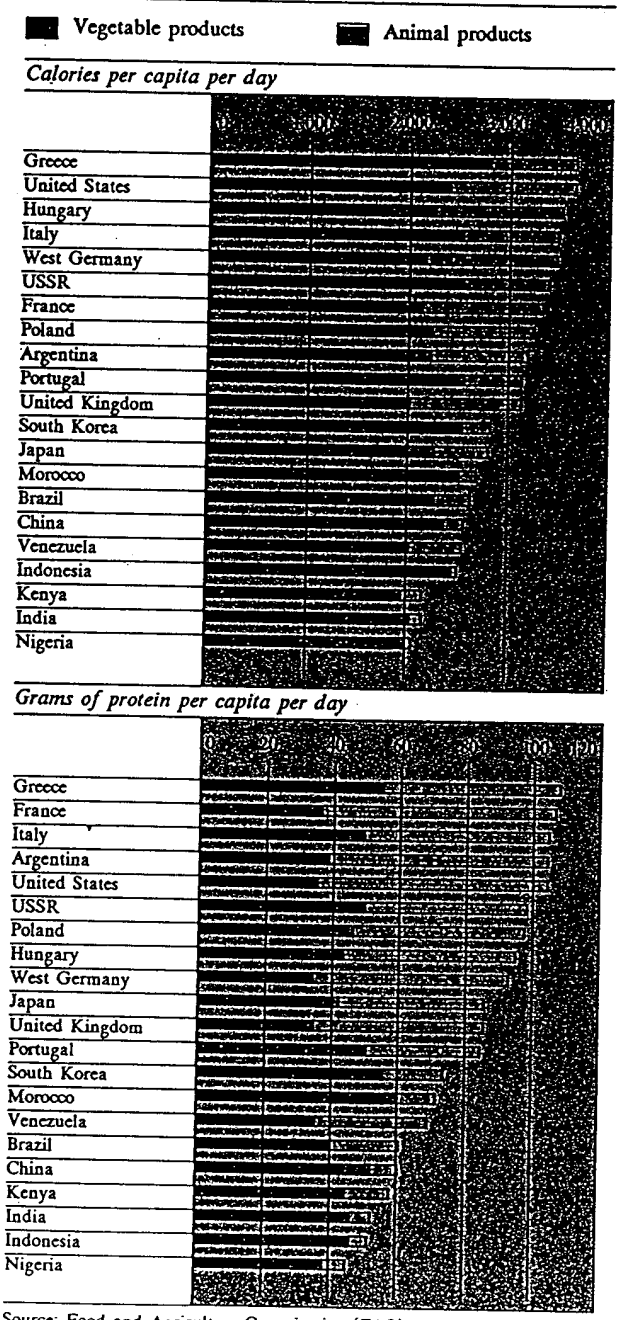


Figure 8
Nutrient Content of Food Supplies, 1983-85

Note scale change



Source: Food and Agriculture Organization (FAO) of the United States, *FAO Production Yearbook*, Vol. 40 (Rome: FAO, 1987), pp. 245-248.

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preponderance of foods with a low dollar value in the Soviet diet partially explains the apparent discrepancy between the comparison of food consumption measured in dollars and the nutrition comparisons.[6]

Over the last two decades, steady growth in worker income, low retail prices, and rising consumer expectations have markedly increased the demand for high-quality foods in the USSR. Although the composition of the food supply has changed somewhat, Moscow has not been able to match food supplies with consumer preferences. Chronic shortages of even basic foods are widely reported, queuing is pervasive throughout the country, and black marketing in food items has become an integral part of the Soviet economy

Consumer Durables. Valued in international dollars, per capita consumption of consumer durables in the USSR is less than one-fifth the US level and is below that of many Latin American nations (see figure 9). Moreover, Moscow's efforts to improve the availability and selection of durable items such as washing machines, refrigerators, and television sets during the past decade have had only mixed results. Ownership of many durables has increased dramatically, but the assortment continues to be unresponsive to consumer demand. For example, according to Soviet figures, about 75 percent of the consumers who wish to purchase refrigerators want models with a capacity of 7 to 8 cubic feet (most US models have capacities of 17 cubic feet or more). Yet only 12 percent of the units produced are of this size. Of the 4 million washing machines produced every year, only 5 percent are fully automatic. Indeed, most Soviet washing machines require the operator to wring clothes by hand at least once during the wash cycle. Stocks of higher quality items, such as passenger automobiles and modern consumer appliances, also remain extremely low (see figure 10).

[6] Another reason is that the Food and Agriculture Organization (FAO) of the United Nations bases its analysis of a nation's food supply on production levels and does not account for waste before or after the food reaches the consumer. The dollar-based consumption data, on the other hand, measure only the food that is actually purchased by consumers and thus omits predelivery waste, which in the Soviet case is substantial

Figure 9
Per Capita Consumption of Consumer Durables, 1980

Thousand 1980 international dollars

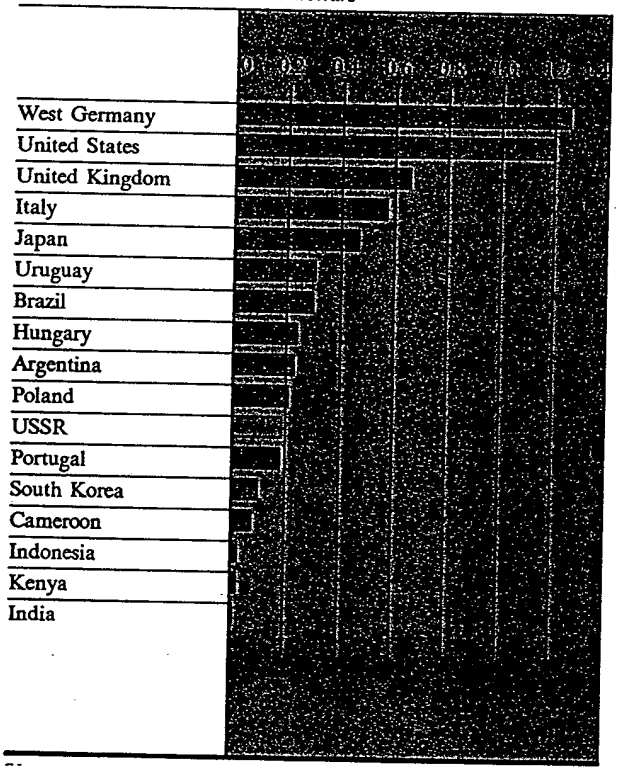

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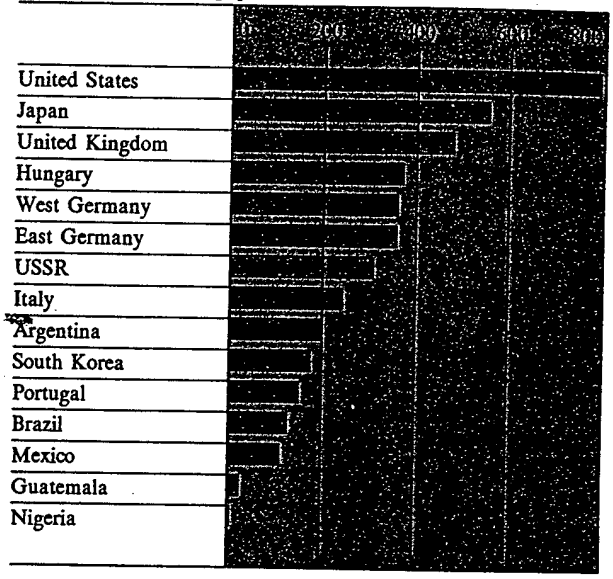
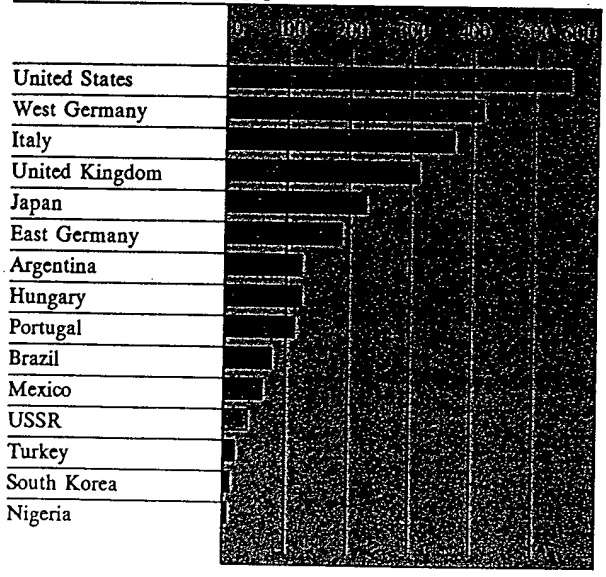
Figure 10
Stocks of Consumer Durables

Note scale change

Televisions per 1,000 population, 1983



Motor vehicles per 1,000 population, 1984



Source: US Department of Commerce, *Statistical Abstract of the United States, 1987* (Washington, DC: US Government Printing Office, 1986), p.827.

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Consumer Services. International comparisons also indicate that the USSR has a long way to go to become a service-oriented economy. The provision of services remains extremely low in the Soviet Union in comparison with the developed West as a result of decades of neglect by state planners.[7] Per capita consumption of consumer services in the USSR (in international dollars) is significantly lower than in the developed West and only slightly larger than in such countries as Uruguay and Portugal. (Figure 11 shows a comparison for 1980, the last year for which data are available.) The unfulfilled consumer demand for many household and repair services has led to the development of a widespread and rapidly growing black market for services. Soviet insurance policies have even begun to offer coverage for automobile parts stolen by black marketeers who supply them to unofficial repair operations

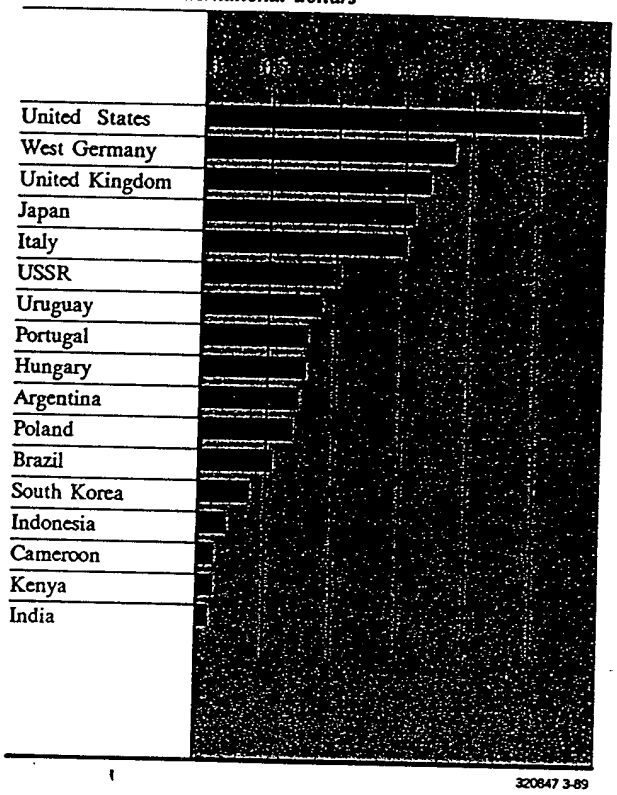
Providing more and better services is one of the goals of Gorbachev's program to improve the lot of the consumer. The regime apparently realizes that workers are more likely to respond to higher wages with greater work effort if there are sufficient supplies of higher quality goods and services to buy

Health Care. During the mid-1970s, infant mortality rates and life expectancy worsened in the USSR, an unprecedented event for an industrial nation in peacetime. According to official Soviet statistics, life expectancy has only recently started to climb, and it is still short of the levels reported in the mid-1960s. The Soviet Union ranks well below the developed West in both of these health care–related categories (see figure 12). Infant mortality rates are poor in large part because of the extremely high rate of infant deaths in the Central Asian republics. Officially published Soviet statistics indicate, for instance, that in 1986 infant mortality rates were 5.8 percent in Turkmenistan and more than 4.6 percent in Tajikistan and Uzbekistan.

[7] For an extensive discussion of this issue, see Gertrude E. Schroeder, "USSR: Toward the Service Economy at a Snail's Pace," *Gorbachev's Economic Plans*, Vol. 2, pp. 240-260

Figure 11
Consumer Services Per Capita, 1980

Thousand 1980 international dollars



The rates published for the European republics, however, are similar to those found in Western Europe.[8]

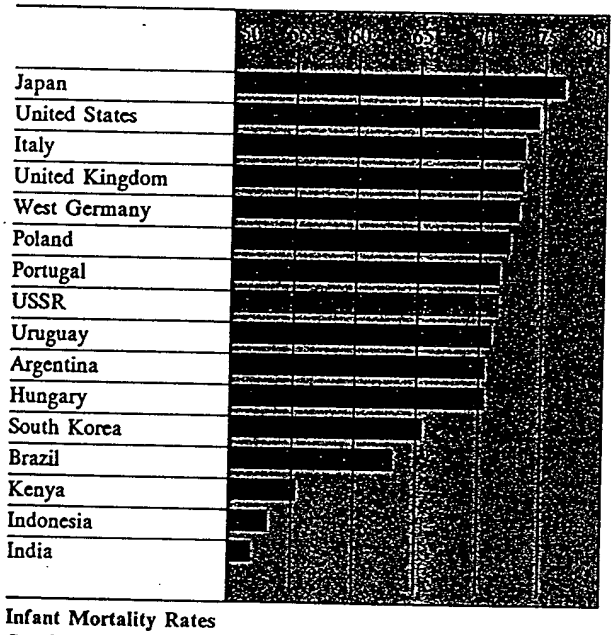
The Soviet health system is greatly overburdened. This situation has arisen, in part, because of an ill-advised strategy to concentrate resources on curing illnesses rather than preventing them. The low priority given to manufacturing health care equipment contributes to the problem and helps to explain why the USSR ranks so low (and has for several decades) relative to other countries in the provision of basic health care services to its citizens (see figure 13)

[8] These figures are misleading, however, because of systematic underreporting of infant deaths and a Soviet definition of infant deaths that is far more lax than that used in other countries. Deaths of infants weighing less than 1,000 grams—World Health Organization guidelines are 500 grams—are labeled "miscarriages" instead of being entered into infant mortality statistic

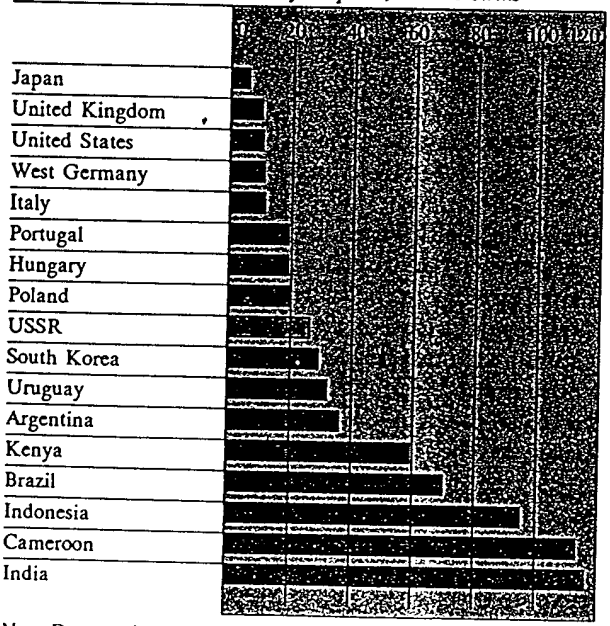
Figure 12
Health Care Indicators, 1985

Note scale change

Life Expectancy at Birth
Years



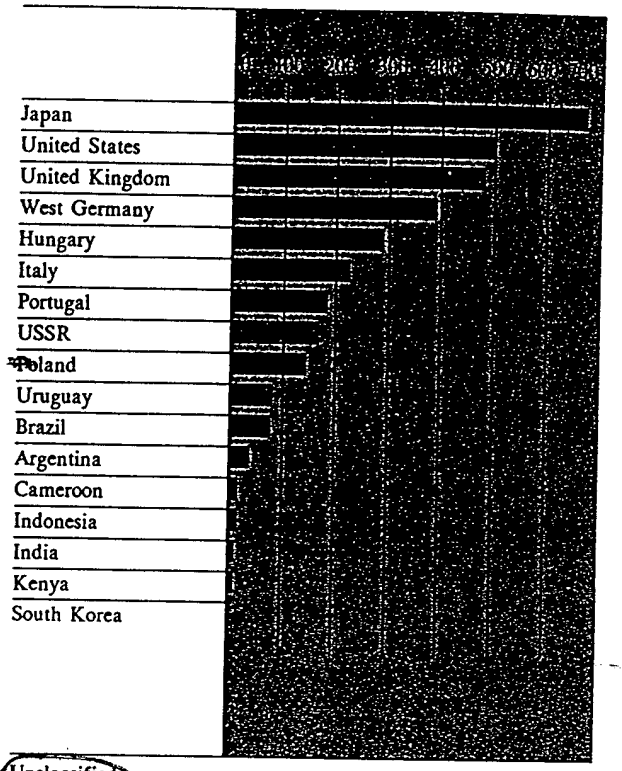
Infant Mortality Rates
Deaths of children under one year per 1,000 live births



Note: Data are for 1985 or closest year for which data are available.

Figure 13
Health Expenditures Per Capita, 1980

1980 international dollars



Unclassified

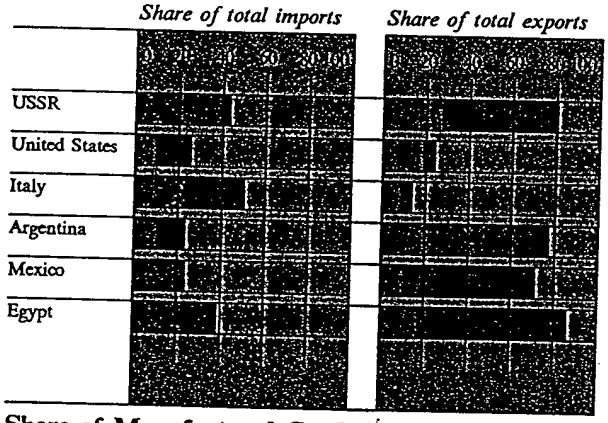
Participation in the World Economy

On the whole, the USSR's pattern of world trade resembles that of a less developed country such as Egypt or Mexico (see figure 14). Moscow is a large importer of manufactured goods and a large exporter of raw materials—notably oil, gas, and semiprocessed materials. After 60 years of industrialization, the USSR is still largely unable to sell its manufactured products abroad. Soviet exports—including intra-CEMA barter trade—relative to other nations are shown in figure 14. When only hard currency sales are considered, manufactured goods make up approximately 10 percent of Soviet exports, about the same share as in a country such as Ivory Coast. That statistic is particularly notable because the manufacturing sector has always had a high priority in the allocation of investment resources in the USSR

Figure 14
Trade Performance, 1985

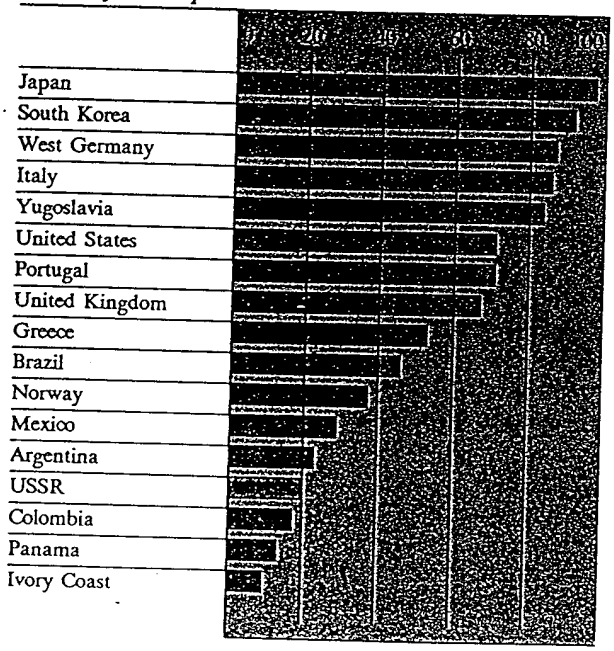
Note scale change

Nonfuel primary products
Fuels
Manufactured goods [a]



Share of Manufactured Goods in Exports, 1985 [a]

Percent of total exports



Note: Non-Soviet data are taken from International Monetary Fund trade statistics.
[a] Excluding arms.

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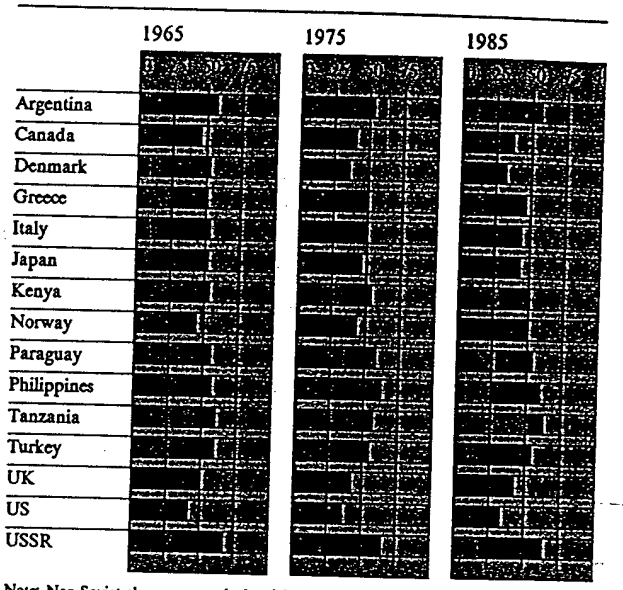
Figure 15
Sectoral Shares of GDP

Index: GDP = 1

Agriculture
Industry
Services



Note: Non-Soviet shares were calculated in indigenous currencies at current prices. Soviet data were calculated in rubles in 1982 factor cost prices.

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Economic Structure

The structure of the Soviet economy is markedly different ffrom that of most developed nations and has changed little since 1975. In particular, compared with other nations at a similar level of development, the Soviet Union has a much larger agricultural sector. According to CIA figures, agriculture has accounted for about 20 percent of the USSR's total output—calculated at factor cost [9]—in the 1980s compared with less than 5 percent for most developed Western nations. The share of agricultural output in GDP in the Soviet Union is similar to that in Turkey and the Philippines (see figure 15). Such a large dependence on agriculture causes sometimes erratic annual fluctuation in overall national output—a problem typical of developing nations of the Third World.

[9] See footnote 3.

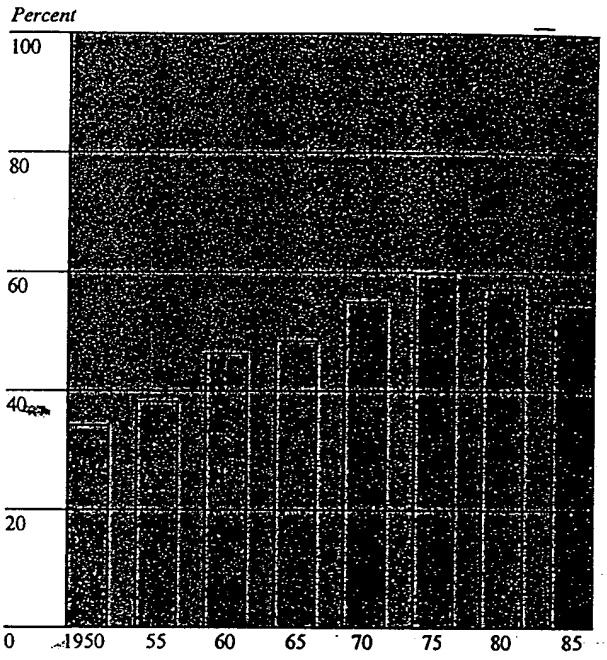
Table 3
Average Annual Growth of GDP, 1966-85

Percent

	1966-70	1971-75	1976-80	1981-85
USSR	5.1	3.1	2.2	1.8
United States	2.8	2.3	3.3	3.0
France	5.4	4.0	3.3	1.5
West Germany	4.2	2.1	3.4	1.3
Japan	11.0	4.3	5.0	3.9
Italy	6.2	2.4	3.8	1.6
Greece	7.2	5.1	4.4	1.3
Portugal	6.3	4.4	5.4	1.0
East Germany	3.1	3.5	2.0	1.9
Hungary	3.0	3.3	2.0	0.6
Poland	4.0	6.5	0.7	0.6

Sources: CIA Reference Aid CPAS 88-10001 (Unclassified), September 1988, *Handbook of Economic Statistics*. Greece and Portugal data are from Organization for Economic Cooperation and Development, *National Accounts, Vol. 1, Mail Aggregates, 1960-86* (Paris: OECD, 1988).

Figure 16
Soviet GDP as Share of US GDP, 1950-85



Note: Shares are based on a geometric mean comparison of Soviet and US GDP in rubles and dollars.

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The Soviet Economic Malaise: Barriers to Intensive Growth

In the seventies and eighties we lost our previous dynamism to a certain extent. The economy did not succeed in switching over from extensive to intensive growth in time.

1986 Report of CPSU Central Committee

As recently as the late 1960s and early 1970s, rates of economic growth in the USSR were higher than those of the United States and some Western industrialized nations (see table 3). Since the latter half of the 1970s, however, gains have occurred less rapidly. During the past two five-year planning periods, the average annual rate of growth of Soviet GDP fell to around 2 percent or less—the same as or lower than rates of growth attained in most Western countries. As a result, by 1985 Soviet GDP—which had increased from less than one-third of US GDP in 1950 to almost 60 percent by 1975—had declined to about 55 percent of US GDP (see figure 16 and inset, "World Perceptions of the Soviet Economic Model").

World Perceptions of the Soviet Economic Model

The Soviet Union's primary influence on world events will be through its economic policy and its socioeconomic achievements.

—V. I. Lenin

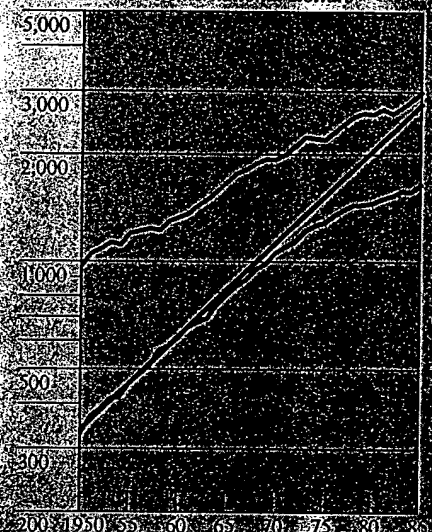
In the early 1960s the Soviet economy was growing rapidly and with the launch of Sputnik, the USSR demonstrated its scientific prowess to the world. In this context, Khrushchev's boast of the superiority of the Soviet system did not seem entirely absurd. Indeed, had the Soviet Union sustained this period's high rate of growth, its GDP would have nearly equaled that of the United States by the mid-1980s (see graph).

An article in Problems of Communism *during the period captures the mood of the time:*

> The world image of the United States as the land of consumer plenty and the birthplace of the affluent society is well-established. That the Soviet Union may overtake the US in consumer goods within a relatively short time cannot fail therefore to make a deep impression on the underdeveloped countries, as well as on some of the more mature Western nations whose consumption standards remain far below those of the US.[1]

More than 20 years later, the image of the Soviet model of socialist development is becoming tarnished. General Secretary Gorbachev, addressing a meeting during the celebration of the 70th anniversary of the Great October Socialist Revolution, noted that the economic problems of the Soviet Union had repercussions abroad. "We ourselves felt it strongly how, in the period of stagnation, the international impetus of socialism had lessened so that restructuring in the USSR became vitally from this point of view as well."[2]

The Failed Vision of the 1950s: Soviet Versus US GDP, 1950-85



According to reports from a number of Third World nations, Gorbachev has identified only part of the problem. The Soviet economic model has become less attractive to Third World nations. The reason for this decline, however, has more to do with the experience of neighboring nations with Soviet-style economic policies than with events in the Soviet Union. In Central America, for example, the failure of Cuba's and Nicaragua's economies to provide a decent living standard for their people is largely responsible for the lack of public backing for Soviet-style economic policies in that region. Similarly, economic failures in Vietnam, Cambodia, Laos, Ethiopia, and Mozambique have had a profound influence on neighboring countries.

[1] Imogene Erro, "Catching Up and Outstripping: An Appraisal," Problems of Communism *(July-August 1961), pp. 24-30.*

[2] *"Gorbachev Addresses 4 Nov Meeting," as translated in* Foreign Broadcast Information Service *SOV-87-213 (Unclassified), 4 November 1987, p. 2.*

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Rating Moscow's Growth Performance

Since the early years of the Soviet state, the leadership has achieved high levels of economic growth by mobilizing tremendous reserves of manpower and resources. While there have been gains in productivity, the USSR's economic growth for the first half century of its existence was primarily achieved through extensive means—by increasing levels of inputs to create more output. This strategy worked quite well at first, and given the low level of development of the Soviet Union in the 1950s and before, it was a feasible approach to rapid industrialization.

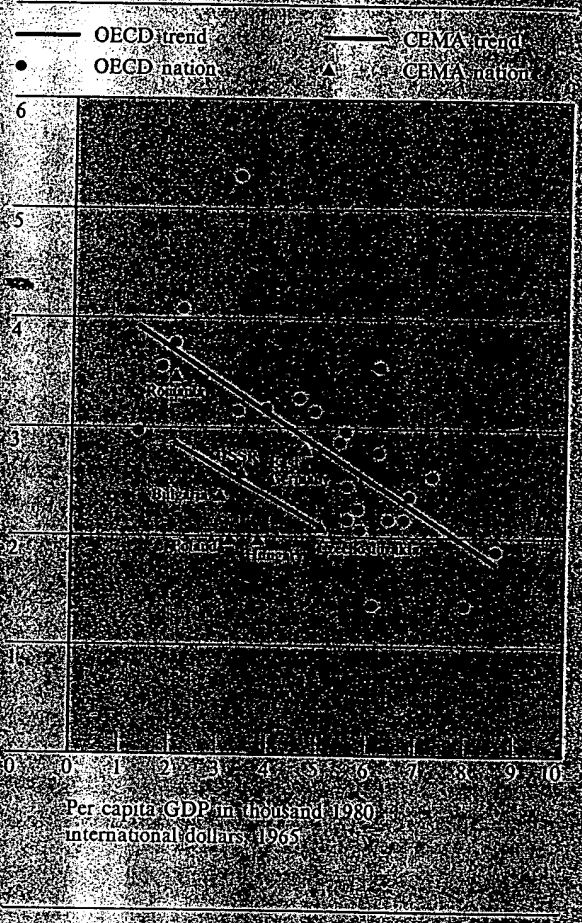
In recent years, however, as the untapped reserves of manpower and physical resources have dwindled, the Soviet economy has been slow to move to a more intensive mode of growth—that is, one that relies on improvements in productivity and efficiency to realize gains in output. Empirical data show that this shift to intensive growth is usually accompanied by slower rates of growth, particularly as a nation approaches the development level of the most advanced countries. According to theory, then, all else being equal, economic growth should be more rapid in more backward economies than in more developed nations.

In the case of OECD nations, this relationship has held reasonably well over the past 20 years. That is, the poorer nations have systematically grown more quickly than their wealthier counterparts. However, this "advantage of backwardness" apparently has not worked to the advantage of the Soviet Union and Eastern Europe to the same degree. Although the least developed centrally planned economies have, in general, grown more rapidly than the wealthier ones, the trend line for the CEMA countries is well below that of the OECD nations.

Alexander Gerschenkron was among the first to look at the growth characteristics of backward economies. For an in-depth discussion of this phenomenon see Gerschenkron, Economic Backwardness in Historical Perspective (New York: Frederick A. Praeger, 1962), chapters 1 and 2. A more recent summary of this theory may be found in Gur Ofer, "Soviet Economic Growth 1928-1985," Journal of Economic Literature (December 1987), Vol. 25, pp. 1769-1833.

The Economic Performance of OECD and CEMA Countries, 1965-85

Average annual growth of per capita GDP in percent, 1965-85



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Simply put, the growth formula that propelled the Soviet Union to world power status—a massive infusion of labor and capital—no longer works. With labor reserves scarcer and the return on investment falling rapidly, continued growth will have to come from increased productivity of capital and labor. Efforts to increase the quality and quantity of output and make better use of available resources have been frustrated, however, by a relatively backward technological base, inflexible production processes, and, perhaps most important, a cumbersome and inefficient system of planning and management and a distorted structure of incentives (see inset, "Rating Moscow's Growth Performance").

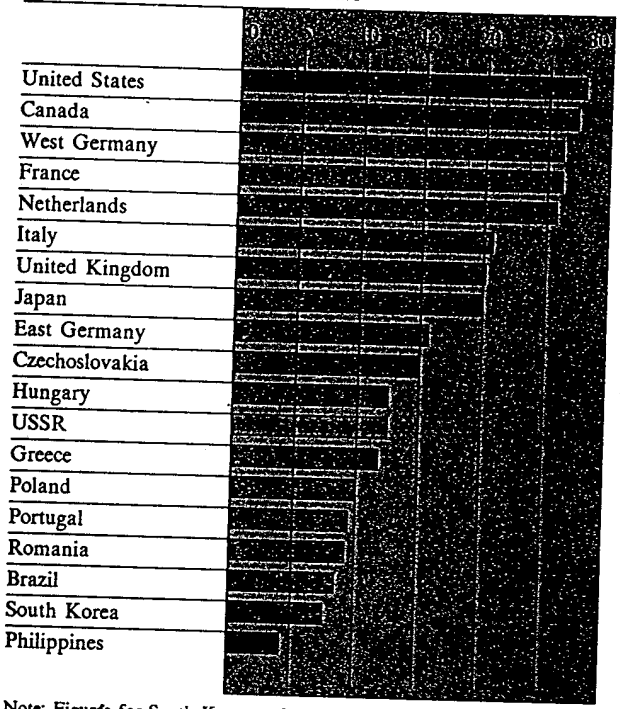
William Baumol concluded in a recent study that these latter characteristics, shared to various degrees by the centrally planned economies in the world, are responsible for the unimpressive productivity record in the USSR that has contributed heavily to the poor performance of its economy. Taking a century-long view of labor productivity, Baumol argues that the lower the initial level of labor productivity is in an industrialized economy, the higher its long-run productivity growth is likely to be. As a result, international differences in productivity growth should converge toward the productivity levels of the leaders. Baumol attributes this convergence largely to spillovers of innovation—and, to a lesser extent, of investment—from the leading to the lagging countries. He found, however, that since 1950 labor productivity in centrally planned economies has converged more slowly, and to a generally lower level, than in market economies.[10]

[10] See William J. Baumol, "Productivity Growth, Convergence, and Welfare: What the Long-Run Data Show," *American Economic Review* (December 1986): pp. 1,072-1,085.

The Soviet leadership has responded to the slide in economic performance by calling for higher rates of productivity growth, setting higher targets for conservation of materials, and placing more emphasis on stepping up the rate of technological change. Indeed, Gorbachev's original program for changing the Soviet economy called for the rapid renewal of the stock of plant and equipment by a combination of high rates of investment and increased rates of retirement of old plant and equipment, a more efficient and better coordinated research and development effort, better incentives for people to work harder and more effectively, and "radical" economic reform designed to streamline the economy and make it more efficient. Progress has been painfully slow, however, and in many areas nonexistent—productivity gains continue at a low level, the leadership has made little progress in getting enterprises to use resources more efficiently, and the Soviet Union continues to lag Western nations in technological development.

Figure 17
GDP Per Worker, 1985

Thousand 1980 international dollars



Note: Figures for South Korea and the Philippines are for 1983. Figure for Brazil is for 1982.

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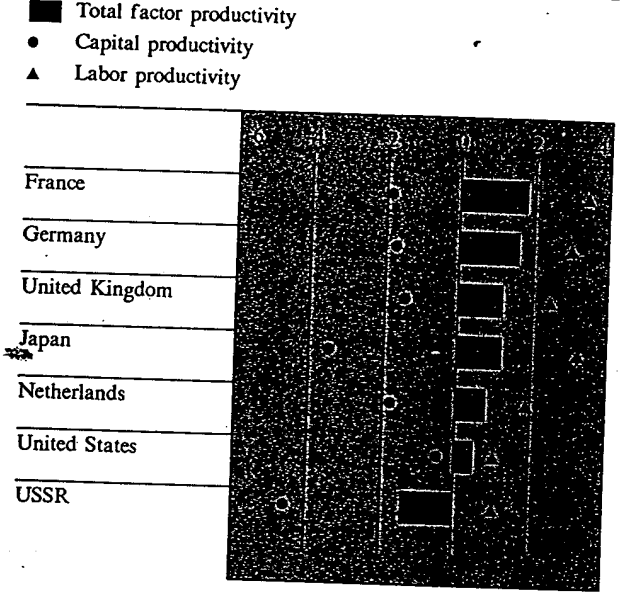
Figure 18
Productivity Change, 1973-84

Average annual growth in percent



Source of non-Soviet data: Agnus Maddison, "Growth and Slowdown in Advanced Capitalist Economies," *Journal of Economic Literature*, (June 1987), pp. 649-698.

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Labor Productivity

Labor productivity is the main thing, the most important thing for the victory of socialism.

V. I. Lenin

In a recently completed comparison of labor productivity, Abram Bergson concluded that socialist economies are systematically less efficient than their Western counterparts.[11] Comparisons of the level of GDP per worker support Bergson's conclusions. Output per worker in the Soviet Union ranks well below that in most developed nations and is even lower than in many East European nations. Indeed, in 1985 GDP per worker in the USSR was less than half that in the United States (see figure 17).

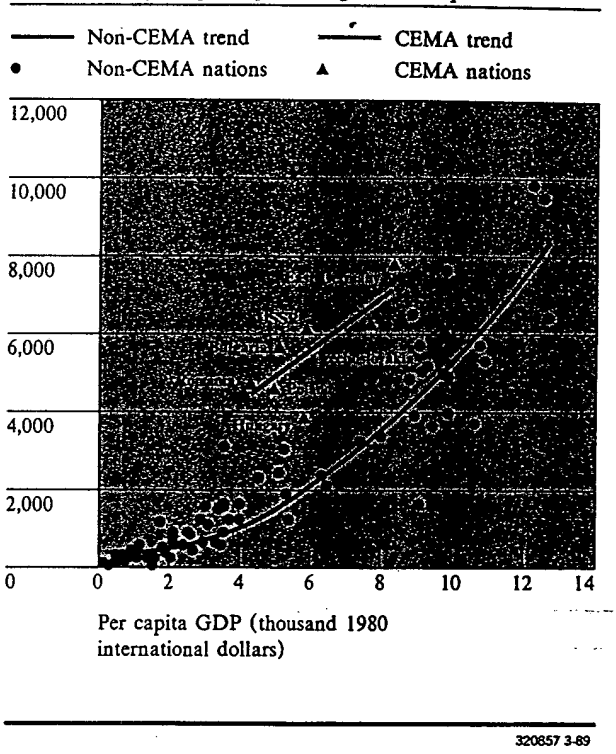
Nor has there been much improvement in productivity trends in the USSR. Since the mid-1970s, Soviet labor productivity has improved slightly, but this gain has been more than offset by a large drop in capital productivity (see figure 18). Total factor productivity (that of labor and capital combined) declined by about 1.5 percent per year during 1973-84. Although the growth in Soviet labor productivity was about the same as in the United States during the period, the decline in Soviet capital productivity was the sharpest of any nation analyzed

[11] Bergson found the productivity margin between East and West to be between 25 and 34 percent in the 1970s, based on calculations of material output per worker after normalizing for size of capital stock and quality of labor. See Abram Bergson, "Comparative Productivity: The USSR, Eastern Europe, and the West," *American Economic Review* (June 1987): pp. 342-357

Energy Efficiency

To assess the energy intensity of the Soviet Union relative to other nations, energy consumption per capita was compared graphically with per capita GDP for a large number of countries (see figure 19). The results show a direct correlation between a nation's level of development and its energy consumption. In the case of the centrally planned economies, however, although this direct relationship still holds, the trend line is much higher, indicating that energy resources are used less efficiently than in the other countries examined. Moreover, Hungary—the CEMA nation having the most decentralized system [12]—is closest to the world trend line, while the other CEMA nations showed far higher levels of energy consumption than their level of development would seem to indicate. The effect of central planning on energy efficiency is not surprising, given internal (and intra-CEMA) prices that do not reflect actual costs of production and the economic environment in which plant managers operate.

Figure 19
Energy Consumption and Economic Development: CEMA Versus Non-CEMA Countries, 1985



Technological Development

The party views acceleration of scientific and technical progress as the main direction of its economic strategy, as the main lever for the intensification of the national economy.

Mikhail Gorbachev
1985

As Gorbachev and other Soviet leaders acknowledge, many of the Soviet Union's economic problems stem from its inability to compete in high-technology fields and to efficiently integrate technological advances into the production process. Over the years, the Soviets have made extensive use of technology transfer—both legal and illegal—in an attempt to cope with this problem. At the same time, the regime is concerned about becoming technologically dependent on the West, as many Soviet officials argue that such dependence would make the USSR susceptible to Western political pressures and retard the development of product and process innovation at home. As a result, the Soviets have devoted substantial resources to encouraging homegrown technological innovation.

Despite Moscow's efforts to overcome its technological backwardness in the civil sector, the Soviet Union lags the West significantly in most fields:

- Although the USSR pioneered the process of continuous casting of steel, by 1983 only 12 percent of Soviet steel was continuously cast, compared with 31 percent in the United States, 65 percent in France, and 86 percent in Japan.
- The USSR has made impressive gains in developing a capability to produce computers, yet new Soviet models tend to be copies of obsolete US models. Moreover, computer inventories in the USSR are only a fraction of what they are in the United States: in 1987 there were only about 100,000

[12] Yugoslavia, a member of the Organization for Economic Cooperation and Development (OECD), is considered a market socialist nation. In terms of energy efficiency, it falls near the world trend line.

personal computers in use in the Soviet Union, compared with 40 million in the United States. US sales in 1988 were expected to reach 10 million.

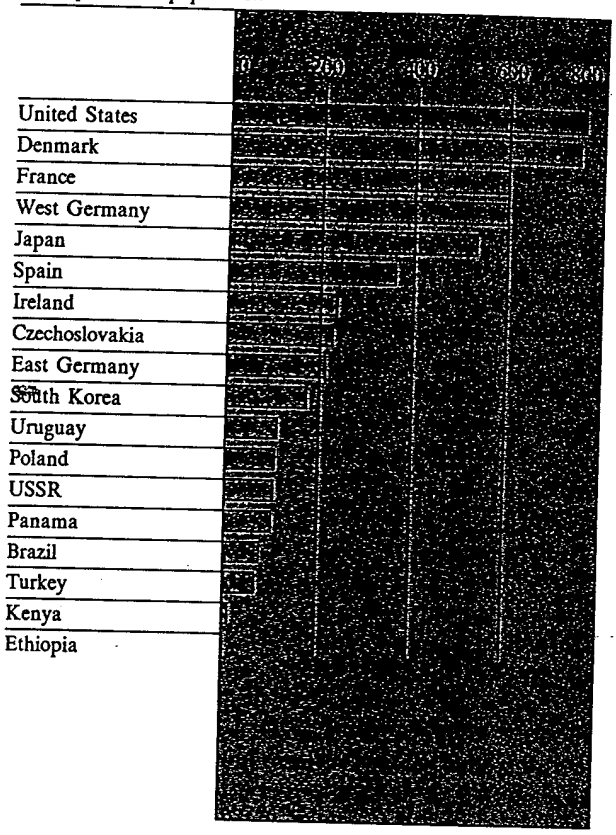
- The Soviet Union is by far the world's largest producer of machine tools, but their mix tends to be greatly skewed toward simpler, less modern tools. Even Soviet tools that employ the same technology as their Western counterparts lack durability, precision, and flexibility.

Nowhere is the technological lag more evident than at the grassroots of Soviet society. One of the most striking features of the high-tech revolution in the West has been the degree to which it has permeated society. Hand-held calculators, personal computers, and portable cassette players are largely taken for granted in the West but are available in the Soviet Union only in small numbers. For instance, in Soviet elementary and secondary schools there was only one personal computer per 575 students in 1987 versus one for every 25 students in the United States.

Even the telephone, often found in several rooms in American homes, has not yet become commonplace in many areas in the Soviet Union. According to *Pravda*, only 23 percent of urban families and 7 percent of families in rural areas had private telephones in 1985. The Soviet Union is similar to less developed countries in Latin America in the number of telephones in use (see figure 20).

Figure 20
Telephone Ownership, 1984

Units per 1,000 population



Note: US figure is for 1982.

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Outlook: The Soviet Economy Into the 21st Century

Whereas Soviet leaders once spoke confidently of overtaking the West, in recent years General Secretary Gorbachev and other officials have openly discussed the prospect of the USSR being relegated to the status of a third-rate economic power. In response, the regime has pushed through a set of "radical" economic and political reform measures aimed at reversing the Soviet Union's slide relative to the rest of the world. Specifically, Soviet plans call for growth rates to climb steadily from the approximately 2 percent per year achieved in the period 1981-85 to an annual rate of 5 percent by the year 2000.

A Soviet View

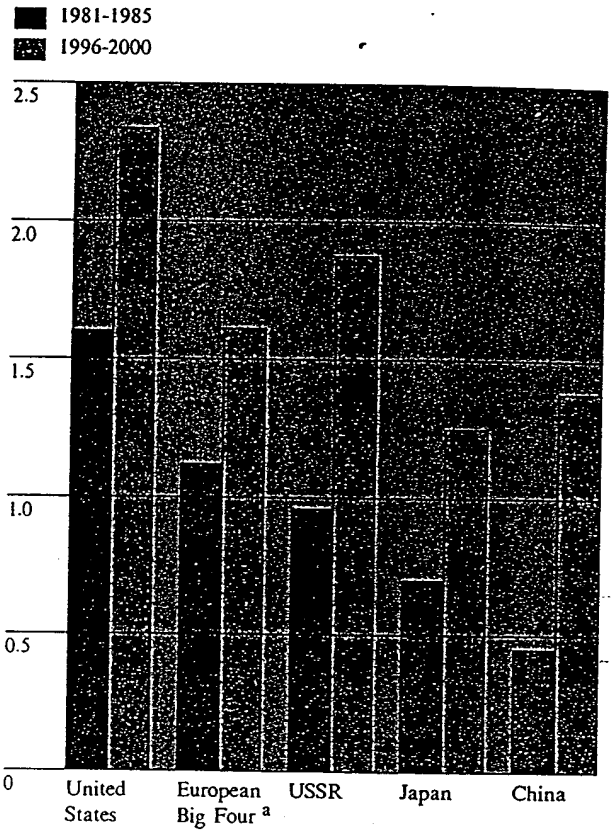
A Soviet view of what the realization of such plans would mean for Moscow's international standing was provided last year in an article in the journal, *Sorevnovaniye Dvukh Sistem (Competition Between the Two Systems).*[13] In this study, the Soviet growth rates planned for 1986-2000 are juxtaposed with Soviet projections for growth of various other world economies to illustrate the effect of *perestroyka* and acceleration on the international economic balance of power (see figure 21).[14] According to this study, by the turn of the century, not only will the Soviet Union's economy remain the second largest in the world, but it will also exceed in size the combined economies of France, Italy, West Germany, and the United Kingdom. China and Japan would continue to trail the Soviet Union, although their relative positions would reverse over the period.

[13] B. M. Bolotin, "Problems of Economic Competition Between Two Systems (A Comparative Analysis)," *Competition Between the Two Systems* (Moscow: The Institute of World Economics and International Relations of the USSR Academy of Sciences, 1988), pp. 112-142.

[14] Despite the fact that the Soviet comparisons are based on the Marxist concept of national income produced rather than GDP, the Soviet forecasts of Western growth are remarkably similar to those published by commercial forecasting services in the West. Soviet estimates of US and European annual growth rates are 2.6 and 2.4 percent, respectively. Soviet estimates of Japanese and Chinese growth are somewhat more optimistic than some Western figures: 3.9 and 7.8 percent, respectively. The implied growth rate for the Soviet Union is 4.6 percent.

Figure 21
A Soviet View of the Future: National Income Produced

Trillion international dollars



Note: According to the Soviet study, these figures are average levels for the five-year period indicated, recalculated in dollars according to purchasing power parity.

[a] The European Big Four are France, West Germany, Italy, and the United Kingdom.

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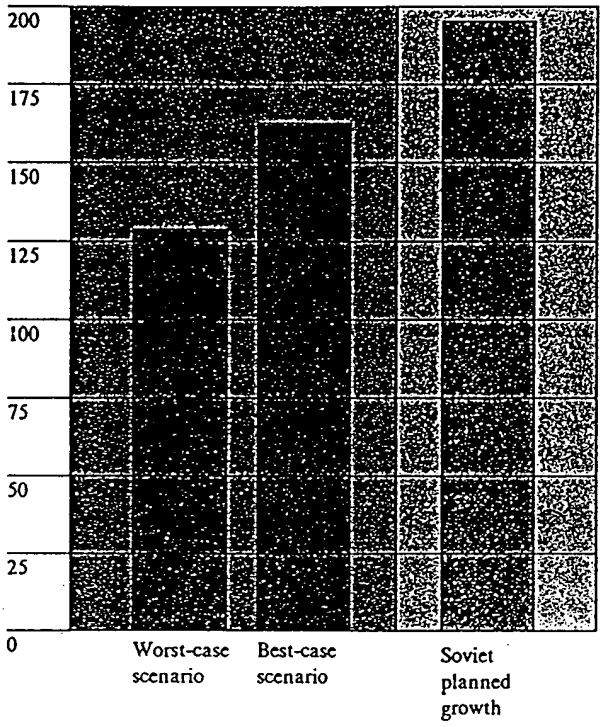
Figure 22
CIA Versus Soviet Projections of Economic Growth in the USSR Between 1985 and 2000 [a]



[a] CIA measures the USSR's economic growth in terms of the Western concept of GNP. (The figures shown are calculated from data in 1982 factor cost prices.) The Soviets use the Marxist concept of national income produced, which excludes depreciation and the nonmaterial component of services. (The figures shown are calculated from data in so-called comparable prices—the Soviet version of constant prices.) If the Soviet data were adjusted to make them comparable to GNP, the difference between the Soviet and CIA projections would probably be even greater.

[b] Based on simulations that account for possible increases in worker effort (human factor effects), capital modernization, and reform initiatives implemented so far. The model also assumes a period of disruption occurs in implementing Gorbachev's programs. In the worst-case scenario, it is assumed that there is no recovery from the slump that occurs and consequently no payoff in the form of higher productivity in the 1990s. In the best-case scenario, it is assumed that the economy recovers from the disruptions and that a payoff occurs in the form of higher returns on labor and capital in the 1990s.

CIA Assessment

We believe that the economic growth laid out by the Soviets—which requires a marked reversal of negative economic trends—is implausible.[15] For comparison purposes we have laid out likely "bounding" scenarios for Soviet economic growth between now and the start of the 21st century (see figure 22). A juxtaposition of those scenarios with that which the Soviets project suggests that the USSR will have difficulty maintaining its current relative standing with respect to GDP. With regard to measures such as per capita consumption, the production of high-technology goods, or the provision of high-quality services to the populace, narrowing the gap between the Soviet Union and the West is likely to be an even more difficult task. Yet, as the Soviets themselves have come to acknowledge, it is on the basis of such specific measures of consumer welfare and technological dynamism, rather than on the basis of gross economic size, that the vitality of the USSR's economy—or the extent of its economic dilemma—should ultimately be assessed.

[15] Our analysis is examined in several publications, including a joint CIA-DIA paper DDB-1900-140-87, August 1987, *Gorbachev's Modernization Program: A Status Report*, pp. 15-16, and DI Technical Intelligence Report October 1987, *Modeling Soviet Modernization: Prospects for Economic Growth*

Appendix A

Methodology of International Comparisons

In many respects, the problems encountered in making international economic comparisons are analogous to those faced when making comparisons within one nation across time: price differences as well as variations in preferences and tastes must be accommodated. In a given country, prices for virtually all goods change between time periods, though at varying rates, and consumer tastes and preferences may shift significantly, as reflected in the mix of goods and services purchased. Similarly, in international comparisons, prices expressed in local currencies differ among nations, and the mixes of goods and services consumed are typically quite diverse. In either case, **the goal is to value each good or service in each economy at a common price in a common unit of currency.** This is accomplished by converting national account data in nominal terms to a common base either by using intertemporal price indexes—commonly called price deflators—or international price indexes—commonly called purchasing power parities (PPPs).

The calculation and use of PPPs were pioneered by the United Nations in its International Comparison Project (ICP), and most of the data used in this paper are derived from various UN benchmark studies.[16] Since the Soviet Union has not participated in the ICP, the CIA's bilateral comparisons of the US and Soviet economies were linked to the ICP data base.[17]

The ICP methodology assigns an average world price or "international price" to each good or service produced by any of the countries being compared. The size of a country's output is measured by calculating the value of its products using these "international prices." Comparisons among countries are made by comparing these values.[18]

The major advantage of "international price" comparisons is that they use "country neutral" prices. Index number theory and empirical studies show that, when a single nation's expenditure pattern is used to provide weights in a comparison, the results are almost invariably less favorable to that country than if some other country's weights are used.[19] The use of an international average set of weights, therefore, places no single country at a comparative disadvantage

Because this paper drew on various sources for comparative data, a reconciliation of the data was necessary. A comparison of the Soviet and US economies in the mid-1970s was carried out several years ago by the CIA [20] and has been updated to the present using data on US gross national product (GNP) from the Bureau of Economic Analysis of the Department of Commerce and data on Soviet GNP from the set of GNP accounts compiled by the CIA.

[16] The UN International Comparison Project began in 1968 with a pilot study comparing the purchasing powers of currency and real product for a handful of West European countries. In subsequent years, benchmark studies for 1970, 1973, 1975, and 1980 and partial results for a fifth benchmark (for the year 1985) have been completed, and the set of participating countries has grown to 60. Most major countries have actively participated in the ICP, with the exception of the USSR, China, and several East European countries

[17] China, Bulgaria, Czechoslovakia, and East Germany have also never participated in the ICP; our estimates of GDP for these nations were also linked to the ICP data base. The method by which these four nations' GDP was estimated is discussed in detail in appendix B

[18] For a detailed description of the procedure, see Michael Ward, *Purchasing Power Parities and Real Expenditures in the OECD* (Paris: Organization for Economic Cooperation and Development, 1985) and *Multilateral Measurements of Purchasing Power and Real GDP* (Luxembourg: Statistical Office of the European Communities, 1982)

[19] In the case of a Soviet-US comparison, when US weights are used in the calculation, the Soviet economy is 69 percent as large as that of the United States, but when Soviet weights are used, it is only 41 percent as large

[20] See Imogene Edwards, Margaret Hughes, and James Noren, "U.S. and U.S.S.R.: Comparisons of GNP," *Soviet Economy in a Time of Change* (Washington, DC: Joint Economic Committee, US Congress, 1979), pp. 369-401 and Joint Economic Committee, *Consumption in the USSR: An International Comparison* (Washington, DC: Joint Economic Committee, US Congress, 1981)

Ruble/dollar ratios for 18 categories of goods and services, derived in these CIA comparison studies, were used to compare the relative size of the US and Soviet economies in both rubles and dollars. The geometric mean of the two results was used as a point estimate of the relative size of the two economies.

After reconfiguring the GNP comparisons slightly to make them compatible with the narrower definition of gross domestic product (GDP), the geometric mean ratio of the Soviet and US economies was applied to the "international dollar" value of the size of the US economy to derive an "international dollar" value for Soviet GDP.[21]

[21] This procedure for linking nonparticipating nations to a global comparison is very much like that used for East European nations in the ICP. For both practical and political reasons, the ICP was forced to use geometric mean comparisons to link the participating East European nations into the global comparison in the two most recent benchmark studies. Austria is the country used for binary comparisons with Poland, Hungary, and Yugoslavia. Although this is not the optimal approach, ICP researchers do not believe that the results are seriously distorted by this procedure.

The figures for the United States and the USSR were compared with estimates of GDP in 1985 for other nations—including four in Eastern Europe [22]—compiled by the United Nations and published by Robert Summers and Alan Heston in a recent article in the *Review of Income and Wealth*.[23] Finally, the data set was expanded to include three additional East European countries and China, using the "physical indicator" technique described in appendix B.

[22] Although Romania did not participate in the two most recent ICP benchmark studies, the results of its participation in an earlier benchmark were updated and used in this study, along with the more current data for Poland, Hungary, and Yugoslavia.

[23] Alan Heston and Robert Summers, "A New Set of International Comparisons of Real Product and Prices for 130 Countries, 1950-85," *Review of Income and Wealth* (March 1988): pp. 1-25. The tables in the Heston and Summers article provide data for the years 1950-85 and are, for the most part, based on the results of three ICP benchmark studies. Regional fixity was removed from the 1980 study, and the various benchmark data were made as consistent as possible. Data for 121 market economies and four centrally planned economies—Poland, Hungary, Romania, and Yugoslavia—were used in this study. The data were included as a supplement to the article.

Appendix B

The Physical Indicator Method for Estimating Gross Domestic Product in Dollars

The UN's International Comparison Project (ICP) data, based on purchasing power parities (PPPs) rather than market exchange rates,[24] are available for more than 60 nations. They represent the best available estimates, by far, of the relative sizes of these countries' economies.[25] Although the Soviet Union has never participated in the ICP, comparable data derived with PPPs are available from a series of CIA studies, the most recent of which was presented to the Joint Economic Committee of Congress in 1981.[26] Although the quality of these studies is good, they have become somewhat dated. Benchmark data are routinely indexed forward in time using price indexes, but this practice has its limits. Officials working on the ICP consider five years to be the useful life of a benchmark, and the European Community has begun partial updates on an annual basis to limit the effect of indexing errors. Since the newest study of the USSR is more than 10 years old and some components of Soviet GDP are estimated on the basis of pre-1970 benchmarks, there is considerable potential for error in these data.

Until a new benchmark study of the Soviet Union is made, an alternative method of calculating Soviet GDP in dollars is needed to assess the accuracy of the CIA's current estimates. We have created a model that uses physical indicators—such as energy consumption per capita and life expectancy—to estimate a nation's GDP. The physical indicator method has a number of advantages:

- **Economy of data.** Detailed economic data on a wide variety of sectors are not needed. For our model, in fact, only seven observations are required to generate an estimate of a nation's 1980 GDP in dollars.

- **Broad applicability.** The method is not unique to the Soviet Union. We used it to estimate the GDP of other non-ICP countries as well, including Bulgaria, Czechoslovakia, East Germany, and China.

- **Wide acceptance.** The physical indicator method was pioneered in the 1960s, and the most recent application, a 1973 study by the UN Economic Commission for Europe, has been widely cited in academic and government publications.[27]

- **Simplicity.** The method involves straightforward application of basic statistical theory to interpolate estimates of GDP that are consistent with other figures used in this paper.

[24] Exchange rates can be used to convert economic aggregates such as GDP from one currency to another, but such calculations are of little use in comparing the size of different economies. For details of the UN method and background on the project, see Alan Heston, Irving B. Kravis, and Robert Summers, *World Product and Income, International Comparisons of Real Gross Product* (Baltimore: Johns Hopkins University Press, 1982) and Peter Hill, *Multilateral Measurements of Purchasing Power and Real GDP* (Luxembourg: Office for Official Publications of the European Communities, 1981).

[25] The primary source of national income comparison data for this study is the Penn World Tables, Mark 4. These tables were included in a supplement to the article by Heston and Summers, "A New Set of International Comparisons of Real Product and Prices for 130 Countries, 1950-85."

[26] Joint Economic Committee, *Consumption in the USSR: An International Comparison.* See also Edwards, Hughes, and Noren, "U.S. and U.S.S.R.: Comparisons of GNP," pp. 369-401.

[27] Secretariat of the UN Economic Commission for Europe, "Comparative GDP Levels," *Economic Bulletin for Europe* (Geneva: United Nations ECE, 1980).

The Method

The basic premise of the physical indicator method is that a nation's per capita GDP can be expressed as a function of a set of physical indicators, as follows:

$$GDP = f(I_1, I_2, \ldots, I_n). \quad (1)$$

The set of physical indicators $(I_1 \ldots I_n)$ would include, for example, measures of health, education, personal consumption, and the structure of the economy. Using data from a cross section of countries, a more general relationship between GDP and the indicator variables can be defined as follows:

$$GDP_i = g(I_{1i}, I_{2i}, \ldots, I_{ni}) \quad (2)$$

where the i subscript denotes the ith country. This function can be estimated statistically and the results used to "predict" GDP for centrally planned economies not participating in the ICP.

The Data. We obtained per capita GDPs for 57 countries participating in the ICP from the Phase IV ICP results; data are for 1980 and are denominated in 1980 international dollars. Data on 22 physical indicators were obtained from the World Bank data base and a variety of other sources (see table 6 in appendix C). The data encompassed the following categories:

Health Indicators
Infant mortality rate
Life expectancy at birth*
Population per physician
Persons per hospital bed

Education
Adult literacy rate
Newspapers per person

Diet
Calories in food supply, animal and vegetable sources
Protein in food supply, animal and vegetable sources
Consumption of meat
Consumption of fish

Basic Industrial Products
Energy consumption*
Steel consumption*
Cement production
Newsprint consumption

Consumer Durables
Radio receivers
Televisions*
Passenger cars*
Telephones*

Economic Structure
Percent of labor force in industry
Percent of labor force in agriculture*

Note: Asterisks denote variables selected for use by our model.

The Country Set. Figure B-1 shows the nations we included. Botswana and Luxembourg were dropped from the ICP country set because of the unavailability of physical indicator data. The United States was also deleted because of methodological inconsistencies in the ICP calculations.[28]

One of the criticisms of earlier efforts to use the physical indicator method to predict the GDP of centrally planned economies is the absence of such economies in the predictor country set. The participation of Poland, Hungary, and Yugoslavia in Phase IV of the ICP enabled us to make use of data from these countries both to provide more theoretically sound results and to assess the results for centrally planned economies.

Regression Weights. Because the principal aim of our analysis was to estimate GDP for centrally planned economies, a weighted regression was used to overcome the bias in the country set toward less developed countries (LDCs) in Africa and Latin America and to emphasize the three important East European nations. Countries were grouped into three broad categories—wealthy developed nations, moderately developed nations (which include three East European nations), and LDCs—and weights were assigned to equalize the influence of each group on the least-squares regression calculation. Further subdivisions were created within the latter two groups, and subweights were assigned to balance the representation of each subgroup within its larger category. Figure B-1 shows the relative weights of the various country groups before and after the weighting scheme was introduced

[28] The US participation in the 1980 benchmark study was belated and, as a result, methodologically substandard. Various academics have observed that the value for US GDP appears to be too low in that ICP study, a conclusion supported by the results of our model.

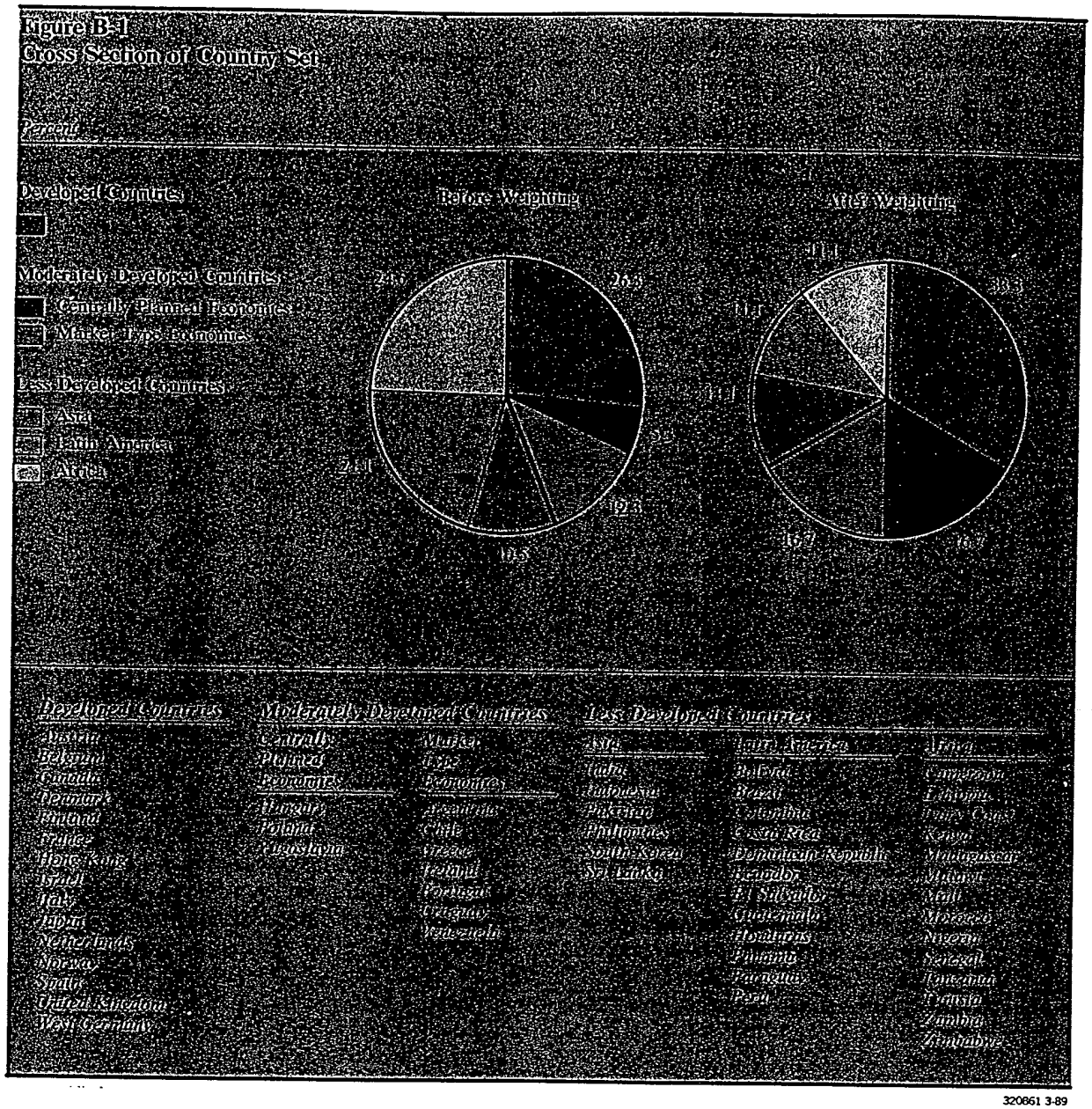


Figure B-1
Cross Section of Country Set
Percent
Developed Countries
Moderately Developed Countries
Centrally Planned Economies
Market Type Economies
Less Developed Countries
Asia
Latin America
Africa
Before Weighting
After Weighting
24.0
26.3
2.5
12.3
10.5
21.1
11.1
33.3
11.1
11.1
16.7
16.7
Developed Countries
Austria
Belgium
Canada
Denmark
Finland
France
Hong Kong
Israel
Italy
Japan
Netherlands
Norway
Spain
United Kingdom
West Germany
Moderately Developed Countries
Centrally Planned Economies
Hungary
Poland
Yugoslavia
Market Type Economies
Argentina
Chile
Greece
Ireland
Portugal
Uruguay
Venezuela
Less Developed Countries
Asia
India
Indonesia
Pakistan
Philippines
South Korea
Sri Lanka
Latin America
Bolivia
Brazil
Colombia
Costa Rica
Dominican Republic
Ecuador
El Salvador
Guatemala
Honduras
Panama
Paraguay
Peru
Africa
Cameroon
Ethiopia
Ivory Coast
Kenya
Madagascar
Malawi
Mali
Morocco
Niger
Senegal
Tanzania
Tunisia
Zambia
Zimbabwe
320861 3-89

The Model. Two estimates of GDP were empirically derived using regression techniques and the data described above. One was based on a linear variant of the model:

$$GDP_i = \alpha_0 + \alpha_1 I_{1i} + \alpha_2 I_{2i} + \ldots + \alpha_n I_{ni} \quad (3)$$

and one was based on a nonlinear variant:

$$GDP_i = e^{\beta_0} I_{1_i}^{\beta_1} I_{2_i}^{\beta_2} \ldots I_{n_i}^{\beta_n} [29] \quad (4)$$

The physical indicator variables were selected using stepwise regression techniques, the results of which are shown on pages 30 and 31. Five variables, significant at the 0.05 level, were selected by the procedure for each model. Three of the variables were used in both models—percent of labor force in agriculture, personal automobiles, and energy consumption per capita. Steel consumption and telephones were the additional variables selected for the linear model, while televisions and life expectancy were selected for the nonlinear model.

The Results

The model predictions of both variants were remarkably similar, in spite of the difference in functional form and in the set of predictor variables. The residuals (the difference between the model predictions and actual GDP) for most countries, for instance, were relatively small and similar in both cases, as shown in the table on page 32. Predictions of GDP for the centrally planned economies not included in the ICP study were also similar (see table B-1). Consequently, the linear and nonlinear formulations were judged to be generally equivalent, and the average of the two predictions was taken as the final estimate of GDP.

Soviet Union. Although the physical indicator method is markedly different from that used by the CIA to estimate Soviet GDP in dollars, the results of the two approaches are virtually identical—our model yields a figure of $5,630 for the value of per capita GDP in the

[29] The nonlinear variant of the model was converted to linear form using logarithmic transformation before estimating the regression parameters

Table B-1
Estimates of 1980 Per Capita GDP for Selected Centrally Planned Economies

1980 international dollars

	Linear	Nonlinear	Average
Bulgaria	4,745.5	4,968.7	4,857
China	618.3	765.8	692
Czechoslovakia	7,566.8	7,011.0	7,289
East Germany	7,438.4	7,663.3	7,551
Romania [a]	4,579.7	3,869.5	4,225
USSR	5,896.0	5,364.5	5,630

[a] To test the model's performance, we estimated Romania's GDP using the model. In the rest of this paper, however, we used the estimate from the Penn World Tables, derived from the 1975 ICP estimate (Romania dropped out of the project before the 1980 results were published). The results: Penn World Tables, $3,946; our model estimate, $4,225.

Table B-2
Per Capita GDP for Selected East European Countries, 1980

1980 international dollars

	Physical Indicator Model	Penn World Tables Mark 4	CIA Handbook
Bulgaria	4,857	4,904	4,898
Czechoslovakia	7,289	7,002	6,559
East Germany	7,551	7,891	7,569

Note: Both the Penn World Tables and the CIA Handbook Estimates are derived from the Economic Commission for Europe's physical indicator study. The Penn World Tables extrapolate from the 1973 estimate, whereas the CIA extrapolates from the 1970 figure. Both use growth rates from L. W. International Financial Research, Inc. to index the benchmarks forward, and both adjust the estimates for consistency with ICP-participating East European nations.

Soviet Union in 1980, compared with the $5,600 obtained using the purchasing power parity approach.

Eastern Europe. The estimates obtained for the three non-ICP European nations are extremely close to figures derived from the UN Economic Commission for Europe's physical indicator study for 1970 and 1973 (see table B-2). Although the Commission's study was not intended to provide estimates of GDP consistent with those of the ICP [30] and used exchange rates as the basis for its regression equations, its results have been widely used in the absence of any reasonable alternative. Since the method we used here is theoretically preferable to that of the Commission—and because it produces estimates for a later year—our results were used in the comparisons in this paper.

China. There have been few estimates made of the size of China's economy relative to those of other nations, in part because China has traditionally guarded its data and because the data that is available may be flawed by irrational prices and other shortcomings. In 1981 Irving Kravis conducted a cursory price study, which serves as the basis for the entries for China in the Penn Tables, but his estimate of per capita GDP—$1,600 in 1980—is generally thought to be too high. On the other hand, exchange-rate-derived estimates are probably too low, showing China's total economy to be roughly the size of Poland's.[31] Consequently, we lack methodologically sound estimates with which to compare our results. Still, our results appear reasonable. They place China in a position similar to that of India and well behind those of Indonesia, Thailand, and South Korea (see table B-3).

Table B-3 *1980 international dollars*
Estimates of Per Capita GDP for China and Selected Asian Countries

	Per Capita GDP
China	692
India	614
Indonesia	1,063
South Korea	2,369
Thailand	1,694

[30] Secretariat of the UN Economic Commission for Europe, "Comparative GDP Levels." The ECE researchers stated that their basic objective was to derive satisfactory approximations of GDP, but they acknowledged that their method "does represent a step away from the GDP concept. . . . [The estimates] represent an expression of economic attainment which goes in some ways beyond the conventional GDP measure." Hence, the result is, by design, more an index of level of development or well-being than a dollar GDP estimate.

[31] See CI.. Reference Aid CPAS 88-10001 '\, September 1988, *Handbook of Economic Statistics*, p. 2.

Statistical Results for Linear Variant of the Model

$$GDP=\alpha_0+\alpha_1(LFA)+\alpha_2(SC)+\alpha_3(TEL)+\alpha_4(PC)+\alpha_5(EPC)$$

where:
GDP = 1980 per capita gross domestic product in international dollars,
LFA = percentage of labor force in agriculture,
SC = steel consumption per capita (kilograms),
TEL = telephones per 1,000 population,
PC = personal automobiles per 1,000 population,
EPC = energy consumption per capita (kilogram coal equivalent).

Analysis of Variance

Source	Degrees of Freedom	Sum of Squares	Mean Square	F Value	Significance of F	Adjusted R^2
Model	5	942,168,406	188,433,681	398.527	0.0001	0.9736
Error	49	23,168,464.2	472,825.8			
Corrected total	53	965,336,870				

Parameter Estimates

Variable	Parameter	Parameter Estimate	Standard Error	T for HO: Parameter = 0	Probability >|T|
Intercept	α_0	3.598.33200	265.63723	13.546	0.0001
LFA	α_1	−4.358.32008	486.67167	−8.955	0.0001
SC	α_2	1.83537817	0.69891375	2.626	0.0115
TEL	α_3	4.73801046	0.80013174	5.922	0.0001
PC	α_4	4.02225251	1.42294679	2.827	0.0068
EPC	α_5	0.20453033	0.05434701	3.763	0.0004

Statistical Results for Nonlinear Variant of the Model

$$\log (GDP)=\beta_0+\beta_1 \log (PC)+\beta_2 \log (LFA)+\beta_3 \log (EPC)+\beta_4 \log (TVS)+\beta_5 \log (LE),$$

where:
GDP = 1980 per capita gross domestic product in international dollars,
PC = personal automobiles per 1,000 population,
LFA = percentage of labor force in agriculture,
EPC = energy consumption per capita (kilogram coal equivalent),
TVS = televisions per 1,000 population,
LE = life expectancy at birth.

Analysis of Variance

Source	Degrees of Freedom	Sum of Squares	Mean Square	F Value	Significance of F	Adjusted R^2
Model	5	79.09964993	15.819930	416.207	0.0001	0.9737
Error	51	1.93849608	0.038010			
Corrected total	56	81.03814601				

Parameter Estimates

Variable	Parameter	Parameter Estimate	Standard Error	T for HO: Parameter=0	Probability > [T]
Intercept	β_0	0.54266347	1.16187237	0.467	0.6424
PC	β_1	0.12331045	0.03723083	3.312	0.0017
LFA	β_2	−0.18178865	0.03333398	−5.454	0.0001
EPC	β_3	0.14366535	0.04622281	3.108	0.0031
TVS	β_4	0.12798850	0.03732956	3.429	0.0012
LE	β_5	1.23828638	0.30693216	4.034	0.0002

Residuals for Linear and Nonlinear Variants of the Model

	Per Capita GDP	Linear Variant Residual	Nonlinear Variant Residual
Argentina	4,342	−275.9	−725.0
Austria	8,230	48.6	396.1
Belgium	9,228	345.4	−1,134.1
Bolivia	1,529	−157.8	382.2
Brazil	3,356	26.5	211.7
Cameroon	875	NA	278.9
Canada	11,332	−650.1	115.6
Chile	4,271	789.5	1,015.2
Colombia	2,552	−547.2	−52.9
Costa Rica	3,031	−278.6	−45.1
Denmark	9,598	199.2	911.0
Dominican Republic	1,868	44.6	−75.6
Ecuador	2,607	779.8	558.4
El Salvador	1,410	−238.0	−437.7
Ethiopia	325	188.2	−29.2
Finland	8,393	−257.1	589.9
France	9,688	820.2	1,245.8
Greece	4,383	−305.3	−30.2
Guatemala	1,952	493.6	454.2
Honduras	1,075	16.9	−195.7
Hong Kong	7,268	1,045.79	919.3
Hungary	5,508	286.3	203.7
India	614	−63.2	−45.4
Indonesia	1,063	−243.4	92.9
Ireland	4,929	−686.5	−1,085.0
Israel	6,145	−75.92	109.3
Italy	7,164	−372.89	80.7
Ivory Coast	1,110	706.2	40.2
Japan	8,117	−25.37	177.7

	Per Capita GDP	Linear Variant Residual	Nonlinear Variant Residual
Kenya	662	302.5	−209.0
Madagascar	589	713.2	−17.1
Malawi	417	515.7	43.2
Mali	356	NA	−17.2
Morocco	1,199	−405.4	−352.2
Netherlands	9,036	−478.91	−311.1
Nigeria	824	−516.5	113.9
Norway	11,094	1,061.57	1,407.4
Pakistan	989	−252.8	21.5
Panama	2,810	−691.8	−857.2
Paraguay	1,979	313.6	424.2
Peru	2,456	164.5	553.1
Philippines	1,551	−289.1	5.4
Poland	5,006	−251.6	−87.5
Portugal	3,733	−501.1	−591.1
Senegal	744	329.3	92.7
South Korea	2,369	−1,021.1	−280.0
Spain	6,131	−204.67	−109.1
Sri Lanka	1,199	−164.1	50.7
Tanzania	353	311.6	−131.9
Tunisia	1,845	−708.0	−160.2
United Kingdom	7,975	−747.64	−2,456.2
Uruguay	4,502	261.7	−32.5
Venezuela	4,424	−108.0	−24.9
West Germany	9,795	279.88	74.3
Yugoslavia	4,733	514	234.6
Zambia	716	−239.0	−471.8
Zimbabwe	930	−596.7	−351.9

Appendix C

Selected Data

Selected data for 130 countries for the period 1965-85 are presented in tables C-1 through C-5. With the exception of the Soviet Union, China, Bulgaria, Czechoslovakia, and East Germany, data are from the Penn World Tables, Mark 4.[32] Data for the East European nations and China were calculated using the physical indicator method described in appendix B. Table C-6 presents the data set used in the construction of the physical indicator model. The Soviet data are CIA estimates.

[32] See Heston and Summers, "A New Set of International Comparisons of Real Product and Prices: Estimates for 130 Countries, 1950-1985."

Table C-1
Gross Domestic Product, 1965-85

Million 1980 international dolla

	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Afghanistan	7436	7630	7853	8070	8146	8271	7961	7775	8565	9211	9658	10052	10682	11109	10262	9506	9998	10172	10488	11097	11047
Algeria	14832	15125	16243	18336	19559	21320	18999	23627	24059	24093	25196	27146	28990	31723	35601	37297	38587	39006	39858	44502	46989
Angola	5390	5541	5859	6018	6516	6802	6914	6908	7548	7092	4875	4474	4588	4916	5042	5261	5230	5026	4897	4998	5240
Argentina	77322	77278	79510	83282	91111	95896	100290	102577	104736	110320	109783	109230	117457	112104	119715	122605	112911	104736	103961	111197	106431
Australia	66756	71444	73944	81925	87018	91851	96484	99895	104284	104926	107518	110791	111606	116616	118318	122664	126193	122957	122721	134160	139405
Austria	33953	35685	36873	38474	40789	43390	45869	48598	50922	53047	53076	55117	57365	57878	60385	62169	62414	63453	64431	65672	67459
Bahrain	NA	NA	NA	NA	NA	NA	NA	NA	2320	2489	2285	2553	2975	3238	3164	3187	3434	3134	3103	3246	3424
Bangladesh	28427	28429	30635	31112	33058	31198	27421	28522	33614	34917	39517	39713	42621	44545	44545	47797	48414	50059	51855	55377	65085
Barbados	512	529	590	630	685	752	776	828	855	839	869	913	952	1000	1073	1109	1109	1031	1036	1153	1324
Belgium	51444	52636	54981	57156	60783	65057	67769	71691	75372	78759	77547	82089	82485	85265	87303	90868	90530	91986	93573	94303	95780
Benin	1476	1500	1499	1493	1473	1517	1517	1700	1791	1747	1784	1809	1644	1658	1712	1850	1983	2108	2178	2003	2123
Bolivia	3926	4189	4451	4842	5027	5350	5639	5975	6428	6781	7268	7681	8118	8241	8416	8517	8403	7425	6993	7192	6951
Botswana	269	288	350	388	393	508	601	637	701	686	787	813	944	1046	1221	1319	1356	1502	1509	1726	1889
Brazil	117250	122810	128935	143033	157406	170799	191528	212255	240772	264114	279695	310211	330988	351019	378159	407036	403297	404638	398711	411661	444921
Bulgaria	25594	27579	29061	29512	31491	32768	34087	35589	36954	38105	41218	42751	41872	42853	44319	43043	44275	45430	44962	45856	45708
Burkina	1319	1322	1458	1531	1556	1547	1572	1588	1592	1706	1841	1963	2024	2081	2194	2206	2309	2384	2370	2315	2512
Burma	9676	9350	9106	9832	10215	10801	11018	11297	11293	11493	11998	12739	13497	14252	15032	16139	17081	18680	19521	19736	20530
Burundi	823	870	914	923	929	1055	1084	1032	1094	1080	1094	1206	1304	1354	1380	1370	1514	1573	1652	1566	1622
Cameróon	3239	3329	3665	4077	4487	4574	4725	5072	5669	5569	5624	5511	6154	6701	7269	7613	8359	8812	9055	10534	11158
Canada	143571	153668	158969	167923	176845	181147	193896	205454	221272	228426	230306	245174	250511	260545	269718	272444	283596	271467	280378	296720	309522
Central African Republic	803	804	820	883	932	960	970	962	993	991	999	1027	1125	1184	1155	1113	1093	1079	1050	1100	1122
Chad	1659	1753	1708	1566	1805	1702	1751	1645	1553	1695	1858	1814	1864	1801	1700	1580	1428	1306	1274	1220	1275
Chile	28483	30291	30578	31867	33210	34540	36701	35719	34666	38801	30343	32858	35958	40206	43515	47425	50179	39596	38714	41609	42090
China	254919	288282	278896	282135	312414	364585	389175	405973	460011	474293	507433	501376	544957	611477	657443	704152	738656	799964	872761	977492	1094791
Colombia	26604	28685	29131	31257	33366	36386	39670	42152	45368	48809	49660	52514	55123	59849	62780	66076	68229	69381	69558	72512	73988
Congo	897	922	1036	1081	1071	1198	1213	1167	1273	1230	1182	1181	1109	1114	1349	1575	1914	2127	2335	2586	2513
Costa Rica	2876	3111	3269	3476	3658	3972	4216	4493	4799	5078	5207	5513	6080	6455	6767	6805	6429	5856	5928	6575	6678
Cyprus	1335	1398	1557	1620	1809	1862	2065	2185	2246	1845	1518	1639	2212	2359	2553	2693	2766	2944	2795	3371	3531
Czechoslovakia	72353	75027	78457	81722	83031	85441	88655	91540	94477	98053	100661	101486	105673	108287	109476	110975	111572	113392	115555	116622	120090
Denmark	32454	33149	34183	35597	37768	38328	39396	41808	43049	42872	42372	44891	46214	47074	49016	49171	49064	50704	52081	53686	55661
Dominican Republic	3689	4193	4287	4306	4760	5284	5821	6315	7095	7723	8110	8536	8949	9108	9501	10382	10932	10668	10944	11062	10965
East Germany	81694	83884	86732	90371	92960	95328	97792	100853	103925	109127	112787	113708	116983	119919	123637	126381	128747	128148	131238	133085	139686
Ecuador	6356	7022	7666	7979	8525	8227	8913	9746	11800	13305	14408	15403	16861	17930	18693	19795	20451	20353	18872	20221	20850
Egypt	18927	19118	18566	19621	21102	22179	23023	24205	25393	26586	28858	31030	33091	35718	38360	42078	46643	48077	51312	56321	57308
El Salvador	3876	4151	4394	4598	4755	4864	5001	5274	5621	5887	6140	6564	7040	7469	7333	6764	6291	5961	5896	6068	6169
Ethiopia	8131	8449	8592	8983	9445	9868	10098	10272	10324	10531	10842	11071	11339	11899	12042	12258	12323	12461	12720	13103	13093
Fiji	851	846	941	993	1024	1145	1215	1354	1580	1563	1595	1637	1746	1755	1993	1937	2032	1976	1890	2089	2014
Finland	22510	22910	23385	24167	26389	28493	28956	31069	32984	34244	33933	33833	34083	34844	37725	40119	40709	41506	41574	44368	45311
France	269924	284660	298576	313217	337080	359364	379360	402337	424345	439405	440508	462796	478648	497607	514745	520381	521743	529015	533021	542272	547196
Gabon	1168	1172	1253	1610	1843	1978	1816	2176	2511	2702	3108	4050	3687	3170	3025	3193	3542	3567	3675	3882	4046
Gambia	214	223	222	222	213	263	273	241	307	318	300	320	323	373	357	363	402	417	454	422	401
Ghana	4110	4005	4105	4232	4533	4896	5095	4809	5189	5688	4935	4750	4953	5441	4942	4842	4624	4558	4559	4436	4716
Greece	18246	19304	20308	21651	23977	25957	27606	30347	34055	31170	34107	36402	37627	40191	41763	42265	41825	41724	41743	43137	44350
Guatemala	6299	6589	6900	7401	7796	8265	8705	9354	9920	10443	10719	11413	12310	12955	13598	14175	14408	14029	13825	13691	13467
Guinea	1862	1880	1868	1838	1771	1733	1825	1803	1832	1958	2014	2192	2191	2294	2309	2450	2499	2652	2688	2784	2749
Guyana	868	986	1044	1024	1056	1096	1083	1083	1157	1191	1373	1461	1338	1257	1276	1285	1342	1300	1185	987	1032
Haiti	2295	2319	2210	2249	2309	2329	2526	2548	2531	2671	2604	2865	2925	3055	3208	3486	3547	3427	3456	3394	3461
Honduras	1898	2014	2107	2260	2278	2446	2550	2652	2801	2825	2768	2999	3347	3618	3830	3968	3971	3862	3880	3847	3993
Hong Kong	9729	10465	11042	11626	13180	14074	15092	16406	19178	19397	19835	23175	25910	29048	32647	36623	39949	40760	43652	48292	49311
Hungary	39099	41229	43581	43981	45570	45266	47482	48382	50837	52292	53271	52966	56376	58275	58839	58996	59077	60989	60575	61379	61253
Iceland	1123	1218	1193	1124	1165	1256	1409	1501	1619	1680	1676	1740	1842	1942	2034	2117	2145	2086	2009	2074	2178
India	262180	246921	270584	277999	299006	315400	326549	323747	334709	332214	363168	363362	391622	413766	394392	422022	445472	438795	472211	528946	573284
Indonesia	48293	49946	51102	54625	59298	64956	70071	77069	87715	96150	102071	110617	119919	130020	140960	155565	172544	178116	188204	199279	203576
Iran	53357	57487	63942	72412	79760	79966	93954	108860	122793	143884	151882	175776	177240	147833	137364	114198	100975	131111	161851	171024	180432
Iraq	25308	26624	24358	29192	30022	31034	33448	32175	37706	38447	43077	46311	47727	55016	71708	58208	32023	27841	40445	42007	44400
Ireland	8562	8675	9155	9834	10358	10703	11060	11766	12243	12824	13207	13522	14521	15430	16035	16764	17112	17380	17319	18082	18488
Israel	9665	9756	10091	11714	13346	14457	16051	18003	19045	20107	21145	21406	20952	22029	23185	23830	24782	25281	25737	26049	26541
Italy	205453	216550	231629	246178	259760	269808	276079	287014	310213	325653	315182	337994	347885	360953	383236	404164	405974	405599	400239	414380	424175
Ivory Coast	3697	3776	3893	4599	4699	5140	5490	5982	6201	6548	7088	7841	7698	8387	8713	9277	9594	9585	9112	8907	9307
Jamaica	3160	3324	3425	3883	4085	4546	4625	5015	4841	4729	4685	4395	4318	4312	4264	4036	4117	4067	4143	4190	4057
Japan	335312	371019	410555	464072	522050	573480	601416	658027	717645	708782	729625	768647	810591	854726	899731	947919	987890	1019017	1048644	1092764	1140763
Jordan	3094	3234	3568	3498	3679	3267	3265	3272	2955	3263	3666	4149	4292	4692	5243	5510	5951	6326	6702	7207	7374
Kenya	4279	4787	5072	5456	5828	6232	6690	7186	7458	7964	8265	8550	9362	10194	10630	11017	11321	11612	11946	11939	12208
Kuwait	19387	21355	20439	22881	24146	25450	27137	28748	27136	24391	23025	25432	24949	26454	31026	26691	24928	22066	25568	28383	25960
Lesotho	299	366	378	373	374	383	369	454	559	610	641	740	838	951	849	929	950	924	941	969	1176
Liberia	666	734	778	827	885	966	1011	1061	1129	1198	1077	1148	1202	1298	1151	1272	1117	1180	1164	1077	1085
Luxembourg	2249	2295	2360	2467	2699	2671	2763	2943	3267	3450	3222	3294	3346	3493	3672	3713	3684	3653	3597	3753	3858

Table C-1 (continued)
Gross Domestic Product, 1965-85

Million 1980 international dollars

	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Madagascar	3704	3798	3945	4188	4327	4566	4703	4779	4601	4649	4560	4518	4713	4808	5150	5133	4853	4958	5104	4953	5052
Malawi	1028	1115	1235	1241	1343	1359	1548	1669	1792	1991	2132	2239	2212	2411	2544	2553	2476	2489	2621	2665	2762
Malaysia	12476	13336	13809	14721	15344	16566	20461	22267	25125	28041	27555	30640	33509	35946	39682	43163	46580	47783	50668	55587	53513
Mali	1490	1528	1538	1522	1526	1636	1711	1783	1790	1866	1897	2043	2121	2261	2302	2385	2362	2264	2349	2647	2678
Malta	432	476	514	564	609	674	685	723	792	861	1016	1189	1326	1466	1601	1685	1775	1829	1815	1839	1904
Mauritania	578	577	587	630	628	699	699	677	667	714	824	847	867	831	851	881	892	936	917	972	932
Mauritius	853	830	882	865	854	850	930	1030	1163	1150	1218	1403	1530	1624	1728	1420	1641	1601	1670	1806	1906
Mexico	112013	119577	127336	138014	146338	156752	163117	176830	191885	204364	215709	224652	231080	250983	275490	300680	326182	318885	300494	304613	314524
Morocco	11005	10623	10957	12073	12898	13112	13973	14425	14892	15771	16328	17946	18799	21056	22104	23075	22851	23978	24192	25561	26614
Mozambique	6307	6468	7137	7622	8108	8303	8957	9306	9978	8762	7668	7229	7340	7350	7524	7704	7891	7692	8240	7504	7436
Nepal	5244	5417	5228	5283	5615	5743	5701	5852	5776	6117	6343	6499	6834	7168	7273	7174	7680	8007	8026	8328	8693
Netherlands	68618	70426	74328	79295	84505	90165	94925	99181	105899	110757	109752	116377	119383	122801	125837	127859	126969	125511	127348	129549	131707
New Zealand	16078	16709	16652	16892	18184	18539	19270	20241	21339	22526	22885	23323	22448	22721	22176	22921	23509	23606	24035	25783	26032
Nicaragua	3576	3712	4045	3981	4138	4208	4381	4368	4872	5578	5424	5732	6431	5782	4126	5376	5765	5596	5788	6063	6319
Niger	1245	1524	1547	1574	1472	1663	1688	1727	1501	1673	1721	1999	1895	2116	2328	2440	2601	2592	2673	2505	2753
Nigeria	33281	31475	26363	27086	33703	41695	47486	49856	52244	57569	52793	59180	64573	61308	69387	69819	63600	60683	63957	57457	57956
North Yemen	NA	NA	NA	NA	2325	2771	3003	3469	3696	4101	4617	5104	5346	5864	6266	6736	7097	7716	7656	7639	7788
Norway	23101	24117	25465	26237	27696	27542	28570	30760	31704	33223	34380	36677	37988	41349	43614	45386	45395	44516	45963	50131	52423
Oman	NA	NA	1231	3457	4568	4779	4566	4818	4606	5440	7131	7697	7563	7297	6766	6072	6990	7236	7626	8386	9615
Pakistan	40464	41500	44184	47118	47675	48178	48797	51604	54676	56509	59252	61744	66887	69341	76344	81158	85431	90174	96279	102241	110092
Panama	2035	2233	2423	2606	2806	3064	3409	3634	3808	3882	3961	4032	3982	4387	4603	5156	5494	5766	5819	5743	5958
Papua New Guinea	2925	3085	3161	3328	3704	4024	4099	4034	4040	4158	4106	4218	4279	4574	4672	4578	4558	4479	4641	4554	4662
Paraguay	2164	2224	2361	2480	2593	2723	2891	3017	3193	3444	3655	3941	4429	4880	5322	5901	6453	6316	6123	6708	6936
Peru	23583	25236	26274	26315	27339	29323	30821	31527	32945	35422	37084	37886	38212	37439	38877	40794	42475	42602	37971	39114	39437
Philippines	30881	32007	34319	36394	38670	40312	42140	44543	48199	52018	55502	59620	62904	67058	70270	74913	77514	79662	82247	78581	74493
Poland	103634	110299	114267	120388	120473	126461	136586	146070	156922	166264	173548	176297	179268	187115	184500	178103	165774	163855	173089	176535	182710
Portugal	16889	17362	18816	20673	21132	23288	24758	26632	29863	30496	28815	30970	32898	33728	35590	36990	37339	38578	38295	37241	38144
Romania	41060	45728	47808	48652	51066	51908	59834	63477	65504	69210	72127	79329	84477	85855	89272	87605	87966	89387	90025	93948	97010
Rwanda	485	683	812	801	897	990	1046	1081	1081	1395	1525	1617	1694	1732	1815	1948	2003	2015	2122	1952	2058
Saudi Arabia	27085	30397	32217	34954	37341	42542	49795	59510	71761	81287	78246	78252	86303	89090	95387	102451	106593	100541	83816	74914	67687
Senegal	3144	3246	3195	3363	3123	3355	3367	3501	3361	3513	3760	4135	4073	3950	4288	4238	4280	4700	4478	4701	4946
Sierra Leone	1089	1082	1037	1134	1222	1301	1309	1406	1485	1531	1507	1543	1519	1649	1618	1688	1683	1637	1566	1678	1620
Singapore	3308	3663	4104	4644	5256	5950	6688	7579	8417	8940	9346	10043	10818	11737	12778	14042	15410	16332	17654	23226	25155
South Africa	64091	67179	71544	74719	80117	82141	86822	90822	94715	101777	104427	107131	105695	108794	114003	122631	131410	126906	123516	129505	125890
South Korea	22878	25757	27479	30772	35077	38335	43208	45768	52962	59740	64529	72164	79014	89132	96312	90316	95142	99166	110145	119421	125467
Somalia	1153	1299	1370	1399	1214	1295	1394	1472	1628	1697	1683	1756	1819	1852	2027	1940	1966	2018	2024	1990	1862
Spain	110468	119016	124753	131257	140962	147918	155428	167419	180281	192114	194551	200097	205837	208973	209363	229214	231083	231328	219735	242936	248481
Sri Lanka	10810	11004	11469	11752	12546	12741	12595	13041	12738	13271	12862	13772	14263	16680	16859	17671	18284	19518	19470	22395	24373
Sudan	9010	8801	8578	10339	9305	9466	10081	9634	9681	10460	10451	10967	11919	12511	12156	12352	13174	12786	12942	13675	11763
Suriname	617	747	799	853	847	880	953	994	1021	1052	1038	1065	1239	1457	1382	1339	1373	1360	1353	1354	1384
Swaziland	250	272	266	279	356	345	417	445	479	494	557	581	576	639	654	683	747	762	800	855	899
Sweden	49791	50807	52779	54599	56987	59526	60686	62377	65478	67190	68420	68226	67510	70445	72573	73652	74181	74550	78095	81678	82698
Switzerland	46778	48013	49482	51341	54291	57431	59610	61494	63468	64494	60354	59386	60568	60037	61196	63933	65447	64454	63802	65560	68713
Syria	8264	7678	8384	8712	10603	9894	10980	12493	12376	16260	19948	21139	20967	22724	24503	26724	31200	30850	30989	29923	30076
Taiwan	14308	15514	17100	18591	20169	22219	24652	27520	30756	31007	32833	36763	40284	45153	48801	52008	54916	56537	58728	66165	68963
Tanzania	2980	3142	3435	3628	3804	3824	3897	4273	4671	4766	5070	5570	5893	5968	6433	6621	6385	6284	6481	7201	7896
Thailand	26024	29017	30976	33574	36445	38661	40905	43777	48185	50818	54094	58658	65754	70618	75506	78695	83436	83888	85564	96262	97877
Togo	962	1013	1145	1169	1278	1301	1372	1472	1382	1574	1513	1363	1426	1561	1630	1611	1533	1508	1404	1422	1484
Trinidad and Tobago	5640	6047	6240	7370	6854	7145	7038	7226	7405	6794	6049	6435	6776	7156	7579	7648	7270	6820	6662	8440	8054
Tunisia	4283	4447	4448	4812	5068	5517	6110	7168	7268	7911	8485	9084	9701	10314	11064	11751	12348	12519	13021	13850	14688
Turkey	43829	49034	51460	54819	57799	60116	65549	69994	71842	81351	90176	100446	104671	103231	101904	103052	106474	111010	115030	121162	126782
Uganda	2685	2941	3004	3103	3395	3435	3775	3740	3722	3776	3852	3896	3963	3838	3151	3246	3532	3766	4012	4649	5099
United Arab Emirates	NA	NA	NA	NA	NA	5386	7275	7897	10202	11684	12553	14190	16196	15685	19958	26056	25541	23411	20791	22729	16956
United Kingdom	305006	311467	319106	333093	339375	350844	362057	369887	399045	398968	398412	416952	426710	444734	455482	449471	446333	456644	471009	473482	489945
United States	1677612	1772185	1817817	1890249	1944483	1939587	2002890	2113863	2236699	2220232	2202277	2310735	2436945	2553050	2611088	2596736	2679350	2604376	2710305	2843256	2994922
Uruguay	8496	8917	8575	8667	9199	9696	9713	9473	9459	9741	10346	10680	10804	11371	12345	13092	12953	11789	10929	10540	10431
USSR	811865	856779	897209	958637	990647	1066500	1105580	1148632	1241787	1294046	1317880	1376362	1425156	1463802	1472280	1485702	1521783	1554583	1595593	1583493	1622856
Venezuela	59681	60252	63273	65267	68624	72437	71631	70038	69990	68084	64339	68192	70055	69707	70077	69103	67758	67547	66974	63503	64095
West Germany	363965	373638	373087	397758	427977	451425	462953	482892	507521	512504	498775	529720	548311	565558	590212	603039	605717	601340	608436	634814	653349
Yugoslavia	43960	46046	47735	49792	56221	58770	64082	66315	67884	78163	78564	81979	88789	97369	101862	105522	106245	109633	111924	113413	117082
Zaire	5955	6637	6632	6749	7144	7746	8315	8578	9514	9191	8838	8535	7601	7230	6432	6472	6938	6629	6578	6895	7034
Zambia	3082	2601	2770	2750	2836	3281	3233	3647	3843	3953	4279	4587	4122	4340	3648	4043	4155	4203	4306	3952	3915
Zimbabwe	2972	3257	3489	3567	4156	4249	4896	5465	5532	6021	6050	6107	5744	5713	5824	6488	7331	7543	7338	7326	7958

Table C-2
Population, 1965-85

Thousand persons, midyear

	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Afghanistan	11115	11371	11634	11902	12176	12457	12758	13067	13383	13707	14038	14401	14774	15156	15548	15950	16363	16786	17222	17670	18140
Algeria	11923	12267	12621	12986	13360	13746	14178	14495	15065	15534	16018	16522	17063	17624	18090	18667	19274	19911	20577	21252	21937
Angola	5347	5459	5575	5693	5813	5935	6076	6223	6375	6530	6687	6852	7026	7208	7393	7581	7783	7990	8202	8400	8605
Argentina	22283	22609	22940	23276	23616	23962	24366	24777	25195	25620	26052	26480	26915	27349	27789	28237	28694	29158	29627	30094	30531
Australia	11388	11651	11799	12009	12263	12507	12937	13177	13380	13723	13893	14033	14192	14358	14514	14692	14927	15178	15369	15544	15752
Austria	7255	7308	7338	7362	7384	7426	7456	7495	7525	7533	7537	7540	7544	7547	7551	7554	7558	7571	7549	7552	7555
Bahrain	NA	NA	NA	NA	NA	NA	NA	NA	250	261	272	285	300	315	331	347	361	376	391	403	418
Bangladesh	60482	61937	63427	64953	66516	68117	69774	72392	74368	77080	78877	80717	82599	84525	86496	88513	90663	93047	95497	98012	100595
Barbados	235	236	236	237	237	239	240	242	243	244	246	246	247	248	248	249	250	251	252	253	254
Belgium	9448	9508	9557	9590	9613	9638	9673	9709	9738	9768	9795	9811	9822	9830	9837	9847	9852	9856	9856	9853	9857
Benin	2332	2393	2457	2522	2589	2657	2728	2800	2874	2951	3029	3109	3192	3276	3363	3464	3573	3685	3801	3920	4043
Bolivia	3841	3933	4028	4124	4224	4325	4433	4544	4658	4775	4894	5020	5151	5286	5426	5570	5720	5874	6034	6211	6383
Botswana	508	521	535	549	563	577	592	620	649	679	711	744	779	815	853	893	935	966	998	1036	1072
Brazil	84292	86486	88737	91046	93416	95847	98169	100547	102982	105477	108032	110592	113197	115848	118545	121286	124015	126806	129662	132580	135564
Bulgaria	8201	8258	8310	8370	8434	8490	8536	8576	8621	8679	8721	8759	8804	8814	8826	8862	8898	8905	8947	8985	9026
Burkina	4595	4687	4780	4875	4972	5071	5172	5275	5380	5487	5596	5705	5816	5928	6044	6161	6258	6357	6457	6559	6662
Burma	24250	24802	25366	25943	26533	27137	27754	28385	29031	29620	30221	30845	31461	32099	32750	33415	34093	34786	35492	36147	36859
Burundi	3131	3174	3217	3261	3305	3350	3366	3407	3576	3647	3720	3794	3870	3948	4022	4114	4229	4346	4465	4578	4702
Cameroon	5825	5955	6088	6225	6364	6506	6683	6864	7051	7242	7439	7676	7920	8172	8433	8701	8979	9266	9562	9873	10190
Canada	19678	20048	20412	20744	21028	21324	21592	21822	22072	22364	22697	22993	23273	23517	23747	24042	24343	24634	24907	25150	25379
Central African Republic	1735	1763	1791	1820	1849	1879	1909	1939	1970	2002	2034	2091	2147	2200	2247	2286	2346	2408	2470	2524	2586
Chad	3345	3404	3465	3526	3588	3652	3725	3799	3874	3951	4030	4114	4199	4288	4381	4477	4577	4681	4789	4900	5020
Chile	8510	8682	8853	9025	9197	9368	9545	9722	9899	10026	10196	10372	10551	10733	10917	11104	11294	11487	11682	11878	12074
China	734493	755277	774945	796238	819419	842867	866329	889337	910525	929358	946721	962278	976248	990040	1004015	1017561	1029466	1042849	1055882	1068235	1078276
Colombia	18488	19022	19617	20179	20647	21266	21785	22291	22571	23309	23502	23968	24434	24906	25376	25892	26425	26965	27515	27943	28468
Congo	1066	1093	1121	1149	1178	1208	1240	1273	1306	1341	1376	1419	1463	1509	1556	1605	1660	1718	1777	1820	1878
Costa Rica	1490	1541	1590	1634	1685	1727	1798	1843	1873	1922	1968	2009	2066	2115	2166	2245	2271	2324	2379	2456	2520
Cyprus	582	588	595	602	608	615	614	613	611	610	609	611	614	618	623	629	637	645	655	657	665
Czechoslovakia	14147	14224	14277	14323	14284	14319	14381	14456	14549	14658	14772	14884	14990	15089	15182	15225	15375	15407	15441	15493	15539
Denmark	4758	4798	4839	4867	4891	4929	4963	4992	5022	5045	5060	5073	5088	5104	5117	5123	5122	5118	5114	5112	5114
Dominican Republic	3719	3826	3937	4051	4168	4289	4413	4540	4671	4806	4945	5066	5191	5311	5432	5558	5688	5823	5961	6108	6255
East Germany	17020	17058	17082	17084	17076	17070	17061	17043	16980	16925	16850	16786	16765	16756	16745	16737	16726	16723	16713	16708	16702
Ecuador	5134	5272	5414	5560	5710	5864	6022	6184	6351	6522	6689	6861	7037	7218	7403	7593	7788	7988	8216	8489	8735
Egypt	29389	30203	30892	31596	32316	33053	33807	34578	35366	36172	36997	37841	38794	39819	40983	42289	43228	44188	45169	46934	48239
El Salvador	3005	3112	3224	3339	3458	3582	3688	3797	3909	4024	4143	4265	4392	4524	4659	4797	4938	5082	5232	5095	5149
Ethiopia	25409	26078	26765	27470	28194	28937	29699	30481	31284	32108	32954	33856	34782	35734	36712	37717	38750	39810	40900	42132	42234
Fiji	464	475	486	497	508	520	533	544	556	565	576	585	596	607	621	634	646	663	670	686	696
Finland	4564	4581	4606	4627	4624	4606	4616	4640	4666	4691	4711	4726	4739	4753	4765	4780	4800	4824	4863	4882	4908
France	48758	49164	49548	49915	50318	50772	51251	51701	52118	52460	52705	52891	53077	53277	53480	53714	53966	54219	54652	54947	55172
Gabon	908	916	924	933	941	950	960	971	981	992	1003	1016	1029	1043	1058	1074	1091	1108	1127	1247	1304
Gambia	419	428	437	446	455	465	475	485	495	515	536	557	579	603	627	652	667	682	697	736	762
Ghana	7799	7963	8129	8299	8473	8620	8860	9090	9300	9690	9970	10260	10560	10860	11180	11500	11887	12287	12700	13086	13513
Greece	8550	8614	8716	8741	8773	8793	8831	8889	8929	8962	9047	9167	9309	9430	9548	9643	9729	9792	9880	9896	9935
Guatemala	4615	4754	4897	5045	5197	5353	5520	5693	5870	6054	6243	6437	6636	6840	7049	7262	7481	7704	7932	8140	8375
Guinea	4137	4205	4274	4345	4417	4490	4574	4659	4746	4835	4925	5027	5132	5238	5346	5457	5579	5704	5831	5935	6081
Guyana	645	657	670	683	696	709	723	735	745	754	762	771	779	785	788	792	795	798	802	815	820
Haiti	3950	4005	4062	4119	4176	4235	4303	4371	4441	4512	4584	4666	4749	4834	4921	5009	5104	5201	5300	5387	5485
Honduras	2304	2367	2433	2500	2568	2639	2724	2812	2903	2996	3093	3204	3320	3439	3563	3691	3822	3957	4093	4232	4383
Hong Kong	3598	3630	3723	3803	3864	3959	4045	4116	4213	4320	4396	4443	4510	4597	4979	5039	5154	5233	5313	5364	5423
Hungary	10153	10185	10223	10264	10303	10337	10365	10398	10426	10471	10532	10589	10637	10673	10698	10711	10714	10698	10674	10669	10625
Iceland	194	197	199	201	203	204	206	209	212	215	218	220	222	224	226	228	231	234	237	239	241
India	487324	498831	510536	522555	534895	547569	560119	573003	586181	599665	613459	627569	642004	656771	671878	687332	701531	716985	733247	748156	764378
Indonesia	104756	106951	109192	111480	113816	116201	118563	121369	124242	127182	130192	133273	136427	139656	142961	146345	149389	152497	155669	158915	162212
Iran	24078	24886	25721	26583	27475	28397	29324	30281	31269	32290	33344	34385	35441	36520	37634	38790	39990	41230	42503	44215	46005
Iraq	7976	8235	8502	8777	9062	9356	9667	9989	10322	10665	11020	11418	11840	12283	12739	13205	13679	14161	14654	15165	15784
Ireland	2876	2884	2900	2913	2926	2950	2978	3024	3073	3124	3177	3228	3272	3314	3368	3401	3443	3483	3508	3535	3552
Israel	2563	2629	2745	2803	2877	2974	3069	3148	3278	3377	3455	3533	3613	3690	3786	3878	3948	4023	4097	4194	4233
Italy	51987	52332	52667	52987	53317	53661	54006	54400	54779	55130	55441	55701	55930	56127	56292	56416	56503	56640	56836	56983	57128
Ivory Coast	4159	4315	4475	4645	4819	5000	5309	5638	5986	6357	6750	7045	7352	7673	8008	8358	8714	9085	9472	9745	10116
Jamaica	1749	1774	1799	1824	1851	1877	1901	1932	1972	2008	2043	2072	2097	2123	2149	2172	2198	2227	2258	2319	2352
Japan	98883	99790	100725	101061	103172	104345	105697	107188	108079	110162	111940	112771	113863	114898	115870	116782	117648	118449	119259	120018	120754
Jordan	1962	2025	2090	2158	2227	2299	2356	2415	2475	2537	2600	2656	2713	2773	2842	2923	3018	3127	3247	3366	3490
Kenya	9446	9789	10144	10513	10894	11290	11737	12201	12684	13186	13707	14250	14813	15399	16009	16642	17363	18115	18902	19604	20414
Kuwait	476	523	575	632	690	748	793	842	894	948	1007	1071	1140	1212	1290	1372	1464	1562	1672	1670	1746
Lesotho	963	982	1002	1022	1043	1064	1088	1112	1136	1161	1187	1215	1244	1275	1306	1339	1373	1408	1444	1486	1525
Liberia	1195	1228	1261	1294	1329	1365	1406	1448	1491	1536	1582	1636	1691	1749	1810	1871	1932	1994	2057	2137	2210
Luxembourg	333	335	335	336	338	340	345	348	353	357	360	361	362	362	364	365	366	365	365	366	366

Table C-2 (continued)
Population, 1965-85

Thousand persons, midyea

	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Madagascar	6032	6175	6322	6473	6627	6785	6957	7133	7314	7499	7689	7884	8084	8289	8499	8714	8953	9199	9452	9847	10164
Malawi	3939	4027	4144	4265	4389	4516	4648	4783	4922	5066	5213	5383	5559	5741	5929	6123	6316	6516	6721	6922	7137
Malaysia	9531	9784	10043	10309	10582	10863	11138	11419	11708	12004	12307	12609	12918	13230	13548	13870	14197	14528	14863	15288	15670
Mali	4558	4672	4790	4911	5035	5162	5297	5435	5577	5723	5873	6026	6184	6350	6522	6699	6885	7076	7272	7374	7545
Malta	319	317	319	319	323	326	325	319	322	324	328	329	332	340	347	364	364	360	360	359	358
Mauritania	1097	1122	1148	1174	1200	1227	1255	1284	1313	1343	1373	1404	1436	1466	1498	1529	1562	1595	1629	1661	1695
Mauritius	740	757	774	792	810	829	841	853	865	878	891	904	917	930	943	957	972	983	993	1011	1020
Mexico	43500	44937	46422	47955	49539	51176	52857	54594	56387	58240	60153	61990	61327	65668	67522	69393	71281	73122	75011	76942	78927
Morocco	13323	13637	13958	14287	14624	14968	15321	15714	16117	16531	16955	17390	17836	18294	18764	19245	19750	20269	20801	21265	21797
Mozambique	7300	7460	7625	7793	7965	8140	8434	8738	9054	9381	9719	10168	10637	11137	11629	12094	12525	12927	13311	13693	14084
Nepal	10344	10538	10735	10937	11141	11350	11563	11870	12185	12509	12841	13183	13533	13892	14261	14640	15029	15428	15738	16139	16527
Netherlands	12295	12456	12598	12730	12878	13039	13195	13329	13439	13545	13666	13774	13856	13942	14038	14150	14247	14313	14362	14420	14486
New Zealand	2628	2676	2724	2748	2804	2811	2854	2902	2956	3024	3083	3111	3120	3121	3109	3113	3125	3158	3203	3233	3254
Nicaragua	1613	1652	1694	1739	1786	1836	1889	1963	2040	2120	2204	2290	2380	2474	2571	2672	2777	2886	2999	3070	3177
Niger	3662	3754	3848	3945	4044	4146	4263	4384	4507	4635	4766	4900	5039	5198	5363	5532	5704	5878	6062	6231	6418
Nigeria	58490	59953	61453	62991	64566	66182	67837	69534	71274	73057	74884	76758	78556	80563	82603	84732	87603	90572	93642	96566	99753
North Yemen	NA	NA	NA	NA	5098	5258	5411	5568	5731	5900	6075	6255	6441	6634	6833	7039	7220	7405	7595	7771	7963
Norway	3723	3753	3785	3819	3851	3877	3903	3933	3961	3985	4007	4026	4043	4059	4073	4091	4100	4115	4133	4140	4153
Oman	NA	NA	603	619	636	654	675	697	719	742	766	801	840	884	930	978	1028	1079	1131	1185	1234
Pakistan	52414	53896	55438	57043	58713	60449	62640	64911	66841	68829	70876	72984	75154	77389	79691	82061	84501	87125	89729	92610	95483
Panama	1269	1306	1344	1383	1423	1464	1497	1532	1567	1602	1639	1676	1715	1754	1794	1835	1877	1920	1964	2003	2046
Papua New Guinea	2141	2185	2237	2292	2353	2418	2490	2542	2595	2650	2705	2762	2821	2882	2944	2996	3061	3128	3190	3307	3393
Paraguay	2019	2071	2123	2177	2230	2290	2364	2441	2504	2568	2633	2701	2770	2839	2910	2982	3057	3133	3211	3366	3475
Peru	11230	11534	11846	12166	12495	12833	13194	13566	13948	14341	14745	15100	15464	15837	16219	16610	17031	17467	17877	18235	18655
Philippines	31771	32727	33712	34727	35772	36848	37828	38834	39867	40927	42015	43203	44424	45680	46972	48300	49530	50740	52055	53384	54734
Poland	31262	31532	31785	32035	32281	32526	32778	33040	33331	33643	33969	34299	34621	34929	35257	35578	35913	36227	36617	36932	37189
Portugal	9129	9109	9103	9115	9097	9044	8990	8970	8976	9098	9426	9666	9736	9796	9856	9909	9957	9997	10099	10164	10229
Romania	19027	19141	19285	19721	20010	20253	20470	20663	20828	21030	21245	21446	21658	21885	22048	22201	22389	22476	22574	22638	22703
Rwanda	3189	3284	3382	3483	3588	3695	3819	3947	4080	4216	4358	4504	4655	4811	4972	5139	5312	5490	5674	5845	6034
Saudi Arabia	4793	4970	5153	5343	5541	5745	6019	6306	6606	6921	7251	7621	8011	8415	8824	9229	9629	10025	10421	10895	11336
Senegal	3930	4022	4117	4214	4313	4415	4519	4625	4734	4846	4960	5099	5242	5389	5540	5696	5863	6034	6211	6378	6560
Sierra Leone	2649	2685	2722	2759	2797	2835	2876	2917	2959	3002	3045	3092	3139	3189	3242	3296	3352	3411	3472	3578	3657
Singapore	1887	1934	1978	2012	2042	2074	2113	2152	2193	2230	2263	2293	2325	2354	2383	2414	2443	2472	2502	2529	2558
Somalia	2912	3015	3121	3230	3344	3462	3583	3709	3840	3975	4115	4221	4330	4441	4556	4674	4807	4945	5086	5224	5351
South Africa	20398	20850	21312	21784	22267	22760	23283	23819	24367	24927	25501	26085	26684	27301	27942	28612	29313	30044	30802	31602	32404
South Korea	28705	29436	30131	30834	31544	32241	32883	33505	34103	34692	35281	35849	36412	36969	37534	38124	38723	39336	39951	40578	41056
Spain	32057	32394	32735	33079	33427	33779	34190	34498	34810	35147	35515	35937	36367	36778	37108	37386	37654	37935	38228	38415	38602
Sri Lanka	11133	11439	11703	11992	12252	12516	12608	12861	13091	13284	13496	13717	13942	14184	14471	14738	14962	15189	15416	15606	15837
Sudan	12359	12645	12938	13238	13545	13859	14299	14753	15222	15705	16203	16718	17249	17796	18362	18945	19546	20167	20807	21202	21784
Surinam	332	340	348	356	364	372	378	382	384	381	364	354	362	367	365	356	355	364	374	383	393
Swaziland	396	409	422	436	450	465	478	492	506	520	535	554	573	592	612	633	656	680	705	730	757
Sweden	7734	7808	7868	7914	7968	8043	8098	8122	8137	8161	8193	8222	8252	8276	8294	8310	8320	8325	8331	8337	8350
Switzerland	5856	5918	5992	6068	6136	6267	6324	6385	6431	6443	6405	6346	6327	6337	6356	6385	6429	6393	6482	6442	6458
Syria	5325	5500	5680	5867	6059	6258	6478	6706	6941	7185	7435	7673	7918	8171	8432	8702	8994	9295	9606	10001	10371
Taiwan	12628	12993	13297	13650	14335	14676	14995	15289	15565	15852	16150	16508	16813	17136	17479	17805	18136	18458	18733	19013	19258
Tanzania	11640	11992	12356	12730	13116	13513	13967	14437	14922	15424	15942	16478	17032	17605	18172	18757	19406	20077	20771	21496	22241
Thailand	31241	32205	33200	34224	35281	36370	37322	38300	39303	40332	41388	42383	43402	44414	45431	46455	47488	48490	49459	50478	51514
Togo	1749	1800	1853	1907	1963	2020	2070	2121	2173	2227	2282	2338	2396	2455	2516	2578	2661	2747	2836	2937	3035
Trinidad and Tobago	974	995	1010	1021	1028	1027	1033	1045	1058	1067	1082	1080	1078	1072	1068	1068	1098	1129	1149	1151	1170
Tunisia	4630	4716	4819	4920	5028	5127	5218	5306	5396	5494	5608	5753	5901	6053	6209	6369	6537	6709	6886	7002	7165
Turkey	31151	31944	32756	33590	34445	35321	36215	37132	38072	39036	40078	40915	41768	42640	43530	44438	45366	46312	47279	48836	50052
Uganda	8064	8404	8757	9126	9510	9758	10013	10275	10543	10819	11102	11392	11690	11995	12308	12630	13034	13451	13881	14261	14695
United Arab Emirates	NA	NA	NA	NA	NA	NA	225	249	275	365	486	646	707	774	848	928	1016	1076	1139	1206	1290	1367
United Kingdom	54378	54653	54933	55157	55372	55522	55942	56120	56259	56272	56257	56246	56220	56210	56274	56360	56348	56341	56334	56488	56543
United States	194303	196560	198712	200706	202677	205052	207661	209896	211909	213854	215973	218035	220239	222585	225055	227704	229849	232057	234496	236721	238982
Uruguay	2693	2716	2738	2761	2785	2808	2812	2816	2821	2825	2829	2839	2853	2870	2889	2908	2928	2948	2969	2991	3013
USSR	230936	233533	235994	238317	240554	242766	245110	247501	249802	252131	254469	256760	259029	261253	263425	265542	268813	271127	273728	276279	278921
Venezuela	9169	9502	9848	10206	10577	10962	11361	11775	12204	12648	13109	13584	14073	14577	15093	15620	16156	16703	17257	17581	18065
West Germany	58619	59148	59286	59500	60067	60651	61302	61672	61976	62054	61829	61531	61401	61327	61359	61566	61682	61638	61421	61181	61015
Yugoslavia	19434	19644	19840	20029	20209	20371	20572	20769	20952	21148	21343	21545	21746	21935	22115	22295	22227	22614	22837	23028	23125
Zaire	19524	19930	20344	20766	21198	21638	22232	22874	23550	24250	24965	25709	26484	27282	28088	28893	29777	30688	31627	32523	33494
Zambia	3609	3711	3816	3923	4034	4159	4288	4421	4559	4700	4846	4997	5152	5312	5477	5647	5844	6048	6259	6478	6704
Zimbabwe	4370	4542	4721	4906	5099	5246	5398	5554	5715	5880	6050	6225	6404	6589	6780	6976	7258	7551	7856	8095	8394

Table C-3
Per Capita Gross Domestic Product, 1965-85

1980 international dollars

	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Afghanistan	669	671	675	678	669	664	624	595	640	672	688	698	723	733	660	596	611	606	609	628	609
Algeria	1,244	1,233	1,287	1,412	1,464	1,551	1,340	1,630	1,597	1,551	1,573	1,643	1,699	1,800	1,968	1,998	2,002	1,959	1,937	2,094	2,142
Angola	1,008	1,015	1,051	1,057	1,121	1,146	1,138	1,110	1,184	1,086	729	653	653	682	694	672	672	629	597	595	609
Argentina	3,470	3,418	3,466	3,578	3,858	4,002	4,116	4,140	4,157	4,306	4,214	4,125	4,364	4,099	4,308	4,342	3,935	3,592	3,509	3,695	3,486
Australia	5,862	6,132	6,267	6,822	7,096	7,344	7,458	7,581	7,794	7,646	7,739	7,895	7,864	8,122	8,152	8,349	8,454	8,101	7,985	8,631	8,850
Austria	4,680	4,883	5,025	5,226	5,524	5,843	6,152	6,484	6,767	7,042	7,042	7,310	7,604	7,669	7,997	8,230	8,258	8,381	8,535	8,696	8,929
Bahrain	NA	NA	NA	NA	NA	NA	NA	NA	9,280	9,538	8,402	8,959	9,917	10,278	9,558	9,185	9,513	8,334	7,935	8,055	8,192
Bangladesh	470	459	483	479	497	458	393	394	452	453	501	492	516	527	515	540	534	538	543	565	647
Barbados	2,178	2,241	2,500	2,658	2,890	3,147	3,232	3,423	3,517	3,437	3,532	3,712	3,856	4,032	4,327	4,454	4,436	4,106	4,110	4,557	5,212
Belgium	5,445	5,536	5,753	5,960	6,323	6,750	7,006	7,384	7,740	8,063	7,917	8,367	8,398	8,674	8,875	9,228	9,189	9,333	9,494	9,571	9,717
Benin	633	627	610	592	569	571	556	607	623	592	589	582	515	506	509	534	555	572	573	511	525
Bolivia	1,022	1,065	1,105	1,174	1,190	1,237	1,272	1,315	1,380	1,420	1,485	1,530	1,576	1,559	1,551	1,529	1,469	1,264	1,159	1,158	1,089
Botswana	530	553	655	706	698	881	1,016	1,028	1,080	1,010	1,107	1,093	1,212	1,283	1,431	1,477	1,450	1,555	1,512	1,666	1,762
Brazil	1,391	1,420	1,453	1,571	1,685	1,782	1,951	2,111	2,338	2,504	2,589	2,805	2,924	3,030	3,190	3,356	3,252	3,191	3,075	3,105	3,282
Bulgaria	3121	3340	3497	3526	3734	3860	3993	4150	4287	4391	4726	4881	4756	4862	5021	4857	4976	5102	5025	5104	5064
Burkina	287	282	305	314	313	305	304	301	296	311	329	344	348	351	363	358	369	375	367	353	377
Burma	399	377	359	379	385	398	397	398	389	388	397	413	429	444	459	483	501	537	550	546	557
Burundi	263	274	284	283	281	315	322	303	306	296	294	318	337	343	343	333	358	362	370	342	345
Cameroon	556	559	602	655	705	703	707	739	804	769	756	718	777	820	862	875	931	951	947	1,067	1,095
Canada	7,296	7,665	7,788	8,095	8,410	8,495	8,980	9,415	10,025	10,214	10,147	10,663	10,764	11,079	11,358	11,332	11,650	11,020	11,257	11,798	12,196
Central African Republic	463	456	458	485	504	511	508	496	504	495	491	491	524	538	514	487	466	448	425	436	434
Chad	496	515	493	444	503	466	470	433	401	429	461	441	444	420	388	353	312	279	266	249	254
Chile	3,347	3,489	3,454	3,531	3,611	3,687	3,845	3,674	3,502	3,870	2,976	3,168	3,408	3,746	3,986	4,271	4,443	3,447	3,314	3,503	3,486
China	347	382	360	354	381	433	449	456	505	510	536	521	558	618	655	692	698	753	825	909	1045
Colombia	1,439	1,508	1,485	1,549	1,616	1,711	1,821	1,891	2,010	2,094	2,113	2,191	2,256	2,403	2,474	2,552	2,582	2,573	2,528	2,595	2,599
Congo	841	844	924	941	909	992	978	917	975	917	859	825	758	738	867	981	1,153	1,238	1,314	1,421	1,338
Costa Rica	1,930	2,019	2,056	2,127	2,171	2,300	2,345	2,438	2,562	2,642	2,646	2,744	2,943	3,052	3,124	3,031	2,831	2,520	2,492	2,677	2,650
Cyprus	2,294	2,378	2,616	2,691	2,975	3,028	3,363	3,565	3,676	3,024	2,492	3,010	3,602	3,817	4,098	4,282	4,343	4,564	4,267	5,131	5,310
Czechoslovakia	5114	5275	5495	5706	5813	5967	6165	6332	6494	6689	6814	6818	7050	7177	7211	7289	7257	7360	7484	7527	7728
Denmark	6,821	6,909	7,064	7,314	7,722	7,776	7,938	8,375	8,572	8,498	8,374	8,849	9,083	9,223	9,579	9,598	9,579	9,907	10,184	10,502	10,884
Dominican Republic	992	1,096	1,089	1,063	1,142	1,232	1,319	1,391	1,519	1,607	1,640	1,685	1,724	1,715	1,749	1,868	1,922	1,832	1,836	1,811	1,753
East Germany	4800	4918	5077	5290	5444	5585	5732	5918	6120	6448	6694	6774	6978	7157	7384	7551	7697	7663	7852	7965	8363
Ecuador	1,238	1,332	1,416	1,435	1,493	1,403	1,480	1,576	1,858	2,040	2,154	2,245	2,396	2,484	2,525	2,607	2,626	2,548	2,297	2,382	2,387
Egypt	644	633	601	621	653	671	681	700	718	735	780	820	853	897	936	995	1,079	1,088	1,136	1,200	1,188
El Salvador	1,290	1,334	1,363	1,377	1,375	1,358	1,356	1,389	1,438	1,463	1,482	1,539	1,603	1,651	1,574	1,410	1,274	1,173	1,127	1,191	1,198
Ethiopia	320	324	321	327	335	341	340	337	330	328	329	327	326	333	328	325	318	313	311	311	310
Fiji	1,833	1,782	1,937	1,997	2,015	2,201	2,279	2,489	2,841	2,766	2,769	2,798	2,929	2,892	3,210	3,055	3,145	2,981	2,821	3,045	2,893
Finland	4,932	5,001	5,077	5,223	5,707	6,186	6,273	6,696	7,069	7,300	7,203	7,159	7,192	7,331	7,917	8,393	8,481	8,604	8,549	9,088	9,232
France	5,536	5,790	6,026	6,275	6,699	7,078	7,402	7,782	8,142	8,376	8,358	8,750	9,018	9,340	9,625	9,688	9,668	9,757	9,753	9,869	9,918
Gabon	1,286	1,280	1,356	1,726	1,959	2,082	1,892	2,241	2,560	2,724	3,099	3,986	3,583	3,039	2,859	2,973	3,247	3,219	3,261	3,113	3,103
Gambia	510	522	509	498	468	566	574	496	620	617	560	575	558	619	570	556	602	611	652	574	526
Ghana	527	503	505	510	535	568	575	529	558	587	495	463	469	501	442	421	389	371	359	339	349
Greece	2,134	2,241	2,330	2,477	2,733	2,952	3,126	3,414	3,814	3,478	3,770	3,971	4,042	4,262	4,374	4,383	4,299	4,261	4,225	4,359	4,464
Guatemala	1,365	1,386	1,409	1,467	1,500	1,544	1,577	1,643	1,690	1,725	1,717	1,773	1,855	1,894	1,929	1,952	1,926	1,821	1,743	1,682	1,608
Guinea	450	447	437	423	401	386	399	387	386	405	409	436	427	438	432	449	448	465	461	469	452
Guyana	1,346	1,501	1,558	1,499	1,517	1,546	1,498	1,473	1,553	1,580	1,802	1,895	1,717	1,601	1,619	1,623	1,688	1,629	1,477	1,211	1,259
Haiti	581	579	544	546	553	550	587	583	570	592	568	614	616	632	652	696	695	659	652	630	631
Honduras	824	851	866	904	887	927	936	943	965	943	895	936	1,008	1,052	1,075	1,075	1,039	976	948	909	911
Hong Kong	2,704	2,883	2,966	3,057	3,411	3,555	3,731	3,986	4,552	4,490	4,512	5,216	5,745	6,319	6,557	7,268	7,751	7,789	8,216	9,003	9,093
Hungary	3851	4048	4263	4285	4423	4379	4581	4653	4876	4994	5058	5002	5300	5460	5500	5508	5514	5701	5675	5753	5765
Iceland	5,790	6,181	5,994	5,592	5,739	6,157	6,839	7,184	7,636	7,812	7,689	7,908	8,299	8,670	8,999	9,285	9,285	8,914	8,477	8,679	9,037
India	538	495	530	532	559	576	583	565	571	554	592	579	610	630	587	614	635	612	644	707	750
Indonesia	461	467	468	490	521	559	591	635	706	756	784	830	879	931	986	1,063	1,155	1,168	1,209	1,254	1,255
Iran	2,216	2,310	2,486	2,724	2,903	2,816	3,204	3,595	3,927	4,456	4,555	5,112	5,001	4,048	3,650	2,944	2,525	3,180	3,808	3,868	3,922
Iraq	3,173	3,233	2,865	3,326	3,313	3,317	3,460	3,221	3,653	3,605	3,909	4,056	4,031	4,479	5,629	4,408	2,341	1,966	2,760	2,770	2,813
Ireland	2,977	3,008	3,157	3,376	3,540	3,628	3,714	3,891	3,984	4,105	4,157	4,189	4,438	4,656	4,761	4,929	4,970	4,990	4,937	5,115	5,205
Israel	3,771	3,711	3,676	4,179	4,639	4,861	5,230	5,719	5,810	5,954	6,120	6,059	5,799	5,970	6,124	6,145	6,277	6,284	6,282	6,211	6,270
Italy	3,952	4,138	4,398	4,646	4,872	5,028	5,112	5,276	5,663	5,907	5,685	6,068	6,220	6,431	6,808	7,164	7,185	7,161	7,042	7,272	7,425
Ivory Coast	889	875	870	990	975	1,028	1,034	1,061	1,036	1,030	1,050	1,113	1,047	1,093	1,088	1,110	1,101	1,055	962	914	920
Jamaica	1,807	1,874	1,904	2,129	2,207	2,422	2,433	2,596	2,455	2,355	2,293	2,121	2,059	2,031	1,984	1,858	1,873	1,826	1,835	1,807	1,725
Japan	3,391	3,718	4,076	4,592	5,060	5,496	5,690	6,139	6,640	6,434	6,518	6,816	7,119	7,439	7,765	8,117	8,397	8,603	8,793	9,105	9,447
Jordan	1,577	1,597	1,707	1,621	1,652	1,421	1,386	1,355	1,194	1,286	1,410	1,562	1,582	1,692	1,845	1,885	1,972	2,023	2,064	2,141	2,113
Kenya	453	489	500	519	535	552	570	589	588	604	603	600	632	662	664	662	652	641	632	609	598
Kuwait	40,728	40,832	35,546	36,204	34,994	34,024	34,221	34,143	30,353	25,729	22,865	23,746	21,885	21,827	24,051	19,454	17,027	14,127	15,292	16,996	14,868
Lesotho	310	373	377	365	359	360	339	408	492	525	540	609	674	746	650	694	692	656	652	652	771
Liberia	557	598	617	639	666	708	719	733	757	780	681	702	711	742	636	680	578	592	566	504	491
Luxembourg	6,755	6,850	7,044	7,343	7,985	7,857	8,010	8,457	9,255	9,663	8,949	9,124	9,244	9,650	10,087	10,173	10,065	10,007	9,856	10,255	10,540

Table C-3 (continued)
Per Capita Gross Domestic Product, 1965-85

1980 international dollars

	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Madagascar	614	615	624	647	653	673	676	670	629	620	593	573	583	580	606	589	542	539	540	503	497
Malawi	261	277	298	291	306	301	333	349	364	393	409	416	398	420	429	417	392	382	390	385	387
Malaysia	1,309	1,363	1,375	1,428	1,450	1,525	1,837	1,950	2,146	2,336	2,239	2,430	2,594	2,717	2,929	3,112	3,281	3,289	3,409	3,636	3,415
Mali	327	327	321	310	303	317	323	328	321	326	323	339	343	356	353	356	343	320	323	359	355
Malta	1,355	1,501	1,610	1,768	1,886	2,068	2,109	2,265	2,459	2,656	3,099	3,615	3,993	4,313	4,615	4,630	4,877	5,080	5,043	5,123	5,319
Mauritania	527	514	511	537	523	570	557	527	508	532	600	603	604	567	568	576	571	587	563	585	550
Mauritius	1,153	1,096	1,139	1,092	1,054	1,025	1,106	1,208	1,344	1,310	1,367	1,552	1,668	1,746	1,832	1,484	1,688	1,629	1,682	1,786	1,869
Mexico	2,575	2,661	2,743	2,878	2,954	3,063	3,086	3,239	3,403	3,509	3,586	3,624	3,768	3,822	4,080	4,333	4,576	4,361	4,006	3,959	3,985
Morocco	826	779	785	845	882	876	912	918	924	954	963	1,032	1,054	1,151	1,178	1,199	1,157	1,183	1,163	1,202	1,221
Mozambique	864	867	936	978	1,018	1,020	1,062	1,065	1,102	934	789	711	690	660	647	637	630	595	619	548	528
Nepal	507	514	487	483	504	506	493	493	474	489	494	493	505	516	510	490	511	519	510	516	526
Netherlands	5,581	5,654	5,900	6,229	6,562	6,915	7,194	7,441	7,880	8,177	8,031	8,449	8,616	8,808	8,964	9,036	8,912	8,769	8,867	8,984	9,092
New Zealand	6,118	6,244	6,113	6,147	6,485	6,595	6,752	6,975	7,219	7,449	7,423	7,497	7,195	7,280	7,133	7,363	7,523	7,475	7,504	7,975	8,000
Nicaragua	2,217	2,247	2,388	2,289	2,317	2,292	2,319	2,225	2,388	2,631	2,461	2,503	2,702	2,337	1,605	2,012	2,076	1,939	1,930	1,975	1,989
Niger	340	406	402	399	364	401	396	394	333	361	361	408	376	407	434	441	456	441	441	402	429
Nigeria	569	525	429	430	522	630	700	717	733	788	705	771	822	761	840	824	726	670	683	595	581
North Yemen	NA	NA	NA	NA	456	527	555	623	645	695	760	816	830	864	917	957	983	1,042	1,008	983	978
Norway	6,205	6,426	6,728	6,870	7,192	7,104	7,320	7,821	8,004	8,337	8,580	9,110	9,396	10,187	10,708	11,094	11,072	10,818	11,121	12,109	12,623
Oman	NA	NA	2,041	5,585	7,182	7,308	6,765	6,912	6,406	7,331	9,310	9,609	9,003	8,254	7,275	6,209	6,800	6,706	6,743	7,077	7,792
Pakistan	772	770	797	826	812	797	779	795	818	821	836	846	890	896	958	989	1,011	1,035	1,073	1,104	1,153
Panama	1,604	1,710	1,803	1,884	1,972	2,093	2,277	2,372	2,430	2,423	2,417	2,406	2,322	2,501	2,566	2,810	2,927	3,003	2,963	2,867	2,912
Papua New Guinea	1,366	1,412	1,413	1,452	1,574	1,664	1,646	1,587	1,557	1,569	1,518	1,527	1,517	1,587	1,587	1,528	1,489	1,432	1,455	1,377	1,374
Paraguay	1,072	1,074	1,112	1,139	1,163	1,189	1,223	1,236	1,275	1,341	1,388	1,459	1,599	1,719	1,829	1,979	2,111	2,016	1,907	1,993	1,996
Peru	2,100	2,188	2,218	2,163	2,188	2,285	2,336	2,324	2,362	2,470	2,515	2,509	2,471	2,364	2,397	2,456	2,494	2,439	2,124	2,145	2,114
Philippines	972	978	1,018	1,048	1,081	1,094	1,114	1,147	1,209	1,271	1,321	1,380	1,416	1,468	1,496	1,551	1,565	1,570	1,580	1,472	1,361
Poland	3315	3498	3595	3758	3732	3888	4167	4421	4708	4942	5109	5140	5178	5357	5233	5006	4616	4523	4727	4780	4913
Portugal	1,850	1,906	2,067	2,268	2,323	2,575	2,754	2,969	3,327	3,352	3,057	3,204	3,379	3,443	3,611	3,733	3,750	3,859	3,792	3,664	3,729
Romania	2158	2389	2479	2467	2552	2563	2923	3072	3145	3291	3395	3699	3762	3923	4049	3946	3929	3977	3988	4150	4273
Rwanda	152	208	240	230	250	268	274	274	265	331	350	359	364	360	365	379	377	367	374	334	341
Saudi Arabia	5,651	6,116	6,252	6,542	6,739	7,405	8,273	9,437	10,863	11,745	10,791	10,268	10,773	10,587	10,810	11,101	11,070	10,029	8,043	6,876	5,971
Senegal	800	807	776	798	724	760	745	757	710	725	758	811	777	733	774	744	730	779	721	737	754
Sierra Leone	411	403	381	411	437	459	455	482	502	510	495	499	484	517	499	512	502	480	451	469	443
Singapore	1,753	1,894	2,075	2,308	2,574	2,869	3,165	3,522	3,838	4,009	4,130	4,380	4,653	4,986	5,362	5,817	6,308	6,615	7,056	9,184	9,834
Somalia	396	431	439	433	363	374	389	397	424	427	409	416	420	417	445	415	409	408	398	381	348
South Africa	3,142	3,222	3,357	3,430	3,598	3,609	3,729	3,813	3,887	4,083	4,095	4,107	3,961	3,985	4,080	4,286	4,483	4,224	4,010	4,098	3,885
South Korea	797	875	912	998	1,112	1,189	1,314	1,366	1,553	1,722	1,829	2,013	2,170	2,411	2,566	2,369	2,457	2,521	2,757	2,943	3,056
Spain	3,446	3,674	3,811	3,968	4,217	4,379	4,546	4,853	5,179	5,466	5,478	5,568	5,660	5,682	5,642	6,131	6,137	6,098	5,748	6,324	6,437
Sri Lanka	971	962	980	980	1,024	1,018	999	1,014	973	999	953	1,004	1,023	1,176	1,165	1,199	1,222	1,285	1,263	1,435	1,539
Sudan	729	696	663	781	687	683	705	653	636	666	645	656	691	703	662	652	674	634	622	645	540
Surinam	1,858	2,197	2,297	2,396	2,328	2,365	2,522	2,603	2,659	2,760	2,852	3,009	3,423	3,971	3,787	3,760	3,868	3,737	3,617	3,536	3,522
Swaziland	631	665	631	641	791	743	872	904	947	950	1,041	1,048	1,006	1,079	1,069	1,079	1,138	1,121	1,135	1,171	1,187
Sweden	6,438	6,507	6,708	6,899	7,152	7,401	7,494	7,680	8,047	8,233	8,351	8,298	8,181	8,512	8,750	8,863	8,916	8,955	9,374	9,797	9,904
Switzerland	7,988	8,113	8,258	8,461	8,848	9,164	9,426	9,631	9,869	10,010	9,423	9,358	9,573	9,474	9,628	10,013	10,180	10,082	9,843	10,177	10,640
Syria	1,552	1,396	1,476	1,485	1,750	1,581	1,695	1,863	1,783	2,263	2,683	2,755	2,648	2,781	2,906	3,071	3,469	3,319	3,226	2,992	2,900
Taiwan	1,133	1,194	1,286	1,362	1,407	1,514	1,644	1,800	1,976	1,956	2,033	2,227	2,396	2,635	2,792	2,921	3,028	3,063	3,135	3,480	3,581
Tanzania	256	262	278	285	290	283	279	296	313	309	318	338	346	339	354	353	329	313	312	335	355
Thailand	833	901	933	981	1,033	1,063	1,096	1,143	1,226	1,260	1,307	1,384	1,515	1,590	1,662	1,694	1,757	1,730	1,730	1,907	1,900
Togo	550	563	618	613	651	644	663	694	636	707	663	583	595	636	648	625	576	549	495	484	489
Trinidad and Tobago	5,791	6,077	6,178	7,218	6,667	6,957	6,813	6,915	6,999	6,367	5,591	5,958	6,286	6,675	7,096	7,161	6,621	6,041	5,798	7,333	6,884
Tunisia	925	943	923	978	1,008	1,076	1,171	1,351	1,347	1,440	1,513	1,579	1,644	1,704	1,782	1,845	1,889	1,866	1,891	1,978	2,050
Turkey	1,407	1,535	1,571	1,632	1,678	1,702	1,810	1,885	1,887	2,084	2,250	2,455	2,506	2,421	2,341	2,319	2,347	2,397	2,433	2,481	2,533
Uganda	333	350	343	340	357	352	377	364	353	349	347	342	339	320	256	257	271	280	289	326	347
United Arab Emirates	NA	NA	NA	NA	NA	23,937	29,215	28,717	27,952	24,041	19,432	20,071	20,925	18,496	21,507	25,646	23,737	20,554	17,240	17,619	12,404
United Kingdom	5,609	5,699	5,809	6,039	6,129	6,319	6,472	6,591	7,093	7,090	7,082	7,413	7,590	7,912	8,094	7,975	7,921	8,105	8,361	8,382	8,665
United States	8,634	9,016	9,148	9,418	9,594	9,459	9,645	10,071	10,555	10,382	10,197	10,598	11,065	11,470	11,602	11,404	11,657	11,223	11,558	12,011	12,532
Uruguay	3,155	3,283	3,132	3,139	3,303	3,453	3,454	3,364	3,353	3,448	3,657	3,762	3,787	3,962	4,273	4,502	4,424	3,999	3,681	3,524	3,462
USSR	3516	3669	3802	4023	4118	4393	4511	4641	4971	5132	5179	5361	5502	5603	5589	5595	5661	5734	5829	5731	5818
Venezuela	6,509	6,341	6,425	6,395	6,488	6,608	6,305	5,948	5,735	5,383	4,908	5,020	4,978	4,782	4,643	4,424	4,194	4,044	3,881	3,612	3,548
West Germany	6,209	6,317	6,293	6,685	7,125	7,443	7,552	7,830	8,189	8,259	8,067	8,609	8,930	9,222	9,619	9,795	9,820	9,756	9,906	10,376	10,708
Yugoslavia	2262	2344	2406	2486	2782	2885	3115	3193	3240	3696	3681	3805	4083	4439	4606	4733	4780	4848	4901	4925	5063
Zaire	305	333	326	325	337	358	374	375	404	379	354	332	287	265	229	224	233	216	208	212	210
Zambia	854	701	726	701	703	789	754	825	843	841	883	918	800	817	666	716	711	695	688	610	584
Zimbabwe	680	717	739	727	815	810	907	984	968	1,024	1,000	981	897	867	859	930	1,010	999	934	905	948

Table C-4
Per Capita Consumption, 1965-85

1980 international dollars

	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Afghanistan	580	585	600	600	585	578	540	512	553	580	572	560	592	591	523	464	484	NA	NA	NA	NA
Algeria	541	512	493	538	568	563	574	605	614	719	737	783	826	834	868	918	959	933	943	945	1,047
Angola	701	713	716	688	697	684	683	615	712	688	364	337	327	331	331	341	337	324	310	315	315
Argentina	2,333	2,306	2,334	2,388	2,505	2,568	2,630	2,728	2,679	2,772	2,713	2,512	2,551	2,358	2,676	2,804	2,671	2,295	1,989	2,585	2,453
Australia	3,375	3,454	3,594	3,816	3,987	4,037	4,102	4,277	4,535	4,496	4,519	4,587	4,602	4,665	4,647	4,838	4,927	4,899	4,856	5,136	5,313
Austria	2,960	3,062	3,157	3,269	3,354	3,474	3,714	3,938	4,127	4,232	4,370	4,575	4,822	4,714	4,913	4,983	4,953	4,980	5,246	5,393	5,598
Bahrain	NA	NA	NA	NA	NA	NA	NA	NA	2,598	2,368	2,276	3,104	3,460	3,426	3,264	3,618	3,409	3,997	3,756	3,787	3,798
Bangladesh	380	375	378	376	397	379	346	343	409	414	466	441	463	462	446	473	477	467	469	484	566
Barbados	1,566	1,634	1,758	1,814	2,112	2,338	2,243	2,450	2,469	2,598	2,937	2,594	2,819	2,650	2,933	2,803	3,188	2,795	2,791	3,114	3,652
Belgium	3,469	3,544	3,628	3,812	4,005	4,177	4,372	4,631	4,990	5,147	5,172	5,433	5,567	5,734	6,015	6,156	6,066	6,134	5,774	6,079	6,173
Benin	508	512	480	471	433	447	442	476	497	454	484	505	458	449	445	461	468	473	473	419	430
Bolivia	719	757	778	789	816	811	822	809	853	864	873	925	960	971	988	1,034	993	873	792	788	734
Botswana	426	375	455	526	630	628	612	605	597	621	652	680	691	794	810	770	777	786	784	773	851
Brazil	870	873	935	992	1,013	1,107	1,228	1,338	1,456	1,584	1,546	1,756	1,917	2,033	2,213	2,310	2,286	2,246	2,204	2,226	2,343
Burkina	251	252	285	281	280	253	250	226	215	221	228	240	275	267	279	293	299	296	278	270	299
Burma	277	288	258	262	273	281	283	282	277	275	286	298	305	310	312	329	337	360	364	389	384
Burundi	226	232	241	242	238	253	255	238	241	228	237	242	269	262	271	273	284	280	284	289	287
Cameroon	328	336	378	392	441	465	495	490	481	512	530	512	543	542	572	608	640	658	660	675	653
Canada	4,389	4,533	4,666	4,825	5,026	4,984	5,286	5,676	6,020	6,291	6,486	6,810	6,816	6,952	7,092	7,038	7,101	6,754	6,765	7,106	7,390
Central African Republic	334	325	329	329	342	350	345	340	348	346	350	352	365	377	366	355	341	330	317	331	329
Chad	357	361	355	273	360	309	309	275	261	283	327	315	318	296	280	256	225	207	196	184	184
Chile	1,648	1,787	1,813	1,836	1,851	1,890	2,041	2,123	1,991	1,941	1,725	1,649	1,820	1,924	2,014	2,114	2,375	1,999	1,852	1,914	1,849
Colombia	979	1,038	1,021	1,052	1,114	1,174	1,252	1,315	1,382	1,441	1,494	1,577	1,618	1,730	1,782	1,834	1,854	1,850	1,799	1,905	1,925
Congo	200	198	227	233	254	308	348	370	414	460	488	467	440	418	431	425	493	535	567	520	497
Costa Rica	1,360	1,452	1,484	1,533	1,550	1,664	1,614	1,649	1,689	1,731	1,727	1,762	1,947	2,062	2,061	1,953	1,765	1,556	1,540	1,696	1,710
Cyprus	1,250	1,406	1,603	1,730	1,860	1,952	2,172	2,388	2,640	2,184	1,803	2,065	2,427	2,642	2,755	2,843	2,869	3,127	3,114	3,453	3,664
Denmark	4,050	4,188	4,298	4,333	4,578	4,677	4,617	4,664	4,901	4,761	4,923	5,304	5,408	5,453	5,525	5,352	5,272	5,377	5,487	5,602	5,840
Dominican Republic	686	801	796	806	855	930	995	1,009	1,075	1,153	1,205	1,272	1,281	1,246	1,227	1,417	1,364	1,356	1,349	1,266	1,203
Ecuador	787	855	904	885	897	908	933	943	984	1,050	1,130	1,204	1,263	1,302	1,351	1,411	1,450	1,448	1,343	1,371	1,349
Egypt	456	439	452	450	471	472	479	490	517	527	529	538	532	558	577	605	697	676	707	789	802
El Salvador	1,006	1,052	1,062	1,085	1,048	1,027	1,031	1,025	1,078	1,086	1,069	1,151	1,263	1,252	1,119	1,000	887	803	757	808	820
Ethiopia	271	273	262	265	275	285	275	266	266	260	252	257	254	270	252	245	238	232	230	220	219
Fiji	1,201	1,136	1,164	1,134	1,197	1,303	1,364	1,494	1,847	1,881	1,875	1,887	1,958	1,916	1,969	1,792	1,915	1,840	1,713	1,882	1,662
Finland	2,657	2,702	2,757	2,681	3,002	3,206	3,263	3,523	3,764	3,708	3,954	3,942	3,825	3,893	4,057	4,197	4,262	4,442	4,313	4,567	4,825
France	3,359	3,491	3,651	3,790	4,003	4,152	4,396	4,634	4,875	4,996	5,155	5,450	5,611	5,833	6,037	6,120	6,198	6,340	6,327	6,386	6,509
Gabon	326	340	336	372	394	398	428	348	667	734	758	690	821	882	843	861	892	895	901	833	808
Gambia	370	385	352	360	366	417	436	397	479	453	458	432	457	459	467	470	519	530	565	515	405
Ghana	382	356	367	376	408	441	436	398	433	458	371	346	336	370	297	293	274	257	247	243	248
Greece	1,411	1,494	1,571	1,692	1,787	1,900	2,004	2,162	2,349	2,228	2,427	2,549	2,655	2,757	2,775	2,762	2,827	2,924	2,948	2,968	3,167
Guatemala	1,242	1,248	1,271	1,289	1,321	1,356	1,392	1,437	1,472	1,481	1,478	1,529	1,602	1,632	1,651	1,657	1,631	1,536	1,465	1,427	1,353
Guinea	349	342	325	316	312	318	324	328	312	297	298	334	305	315	289	296	295	306	303	308	303
Guyana	740	767	752	773	801	826	791	798	806	816	878	885	899	795	719	765	799	352	332	504	529
Haiti	491	486	446	445	447	438	463	466	453	481	452	498	506	501	502	539	556	527	524	472	471
Honduras	599	607	604	630	619	657	642	650	681	654	660	678	708	770	740	760	714	661	637	578	588
Hong Kong	1,985	2,196	2,167	2,298	2,472	2,605	2,875	3,001	3,455	3,333	3,342	3,597	4,156	4,791	4,843	5,441	5,732	5,872	6,250	6,642	6,930
Iceland	3,550	3,950	3,979	3,733	3,524	4,077	4,699	5,077	5,441	5,740	5,096	5,099	5,457	5,733	5,797	5,801	6,013	6,053	5,481	5,870	6,113
India	341	351	365	368	370	385	381	370	369	354	377	355	388	389	346	364	372	387	413	395	419
Indonesia	333	321	343	348	364	370	380	393	426	477	483	509	517	543	606	668	763	773	814	888	883
Iran	835	884	889	968	997	955	1,084	1,123	1,272	1,614	1,774	2,047	2,270	2,204	1,892	1,621	1,394	1,631	2,003	2,165	2,238
Iraq	927	908	763	865	846	795	867	875	827	1,068	1,255	1,366	1,535	1,325	1,703	1,541	1,240	1,096	1,153	1,057	1,014
Ireland	2,199	2,240	2,307	2,491	2,623	2,670	2,731	2,828	2,982	2,982	2,800	2,833	2,945	3,110	3,198	3,193	3,152	2,956	2,839	2,771	2,801
Israel	2,188	2,172	2,128	2,331	2,502	2,492	2,555	2,739	2,853	2,971	2,974	2,988	3,045	3,241	3,447	3,249	3,545	3,740	3,930	3,579	3,534
Italy	2,364	2,512	2,677	2,789	2,948	3,121	3,239	3,369	3,544	3,641	3,637	3,766	3,869	4,028	4,273	4,498	4,597	4,607	4,547	4,589	4,651
Ivory Coast	557	568	567	600	576	621	611	592	612	582	604	641	676	713	692	685	648	609	587	569	590
Jamaica	1,355	1,379	1,404	1,489	1,575	1,681	1,742	1,932	1,645	1,521	1,664	1,497	1,321	1,302	1,245	1,148	1,158	1,173	1,220	1,103	1,093
Japan	2,128	2,314	2,510	2,710	2,926	3,100	3,255	3,532	3,847	3,765	3,873	3,985	4,107	4,274	4,501	4,535	4,542	4,704	4,827	4,828	4,909
Jordan	1,345	1,425	1,418	1,332	1,283	1,105	1,074	1,034	873	992	1,110	1,136	1,207	1,294	1,457	1,408	1,525	1,487	1,544	1,787	1,746
Kenya	340	357	364	361	358	367	402	395	358	392	388	367	382	412	432	398	378	384	381	379	364
Kuwait	3,466	3,728	4,066	3,877	3,538	3,198	3,159	3,216	3,418	3,437	4,059	4,756	5,506	5,206	5,233	5,663	5,386	5,283	4,909	5,061	5,153
Lesotho	12	6	365	5	358	1	331	1	486	9	36	50	668	717	2	658	4	67	98	196	290
Liberia	345	371	389	362	376	391	402	406	407	408	385	444	489	486	432	353	308	302	289	327	289
Luxembourg	3,977	4,003	3,984	4,144	4,325	4,555	4,755	4,920	5,112	5,303	5,531	5,695	5,838	6,018	6,222	6,418	6,518	6,429	6,330	6,657	6,820
Madagascar	528	529	532	548	554	568	578	579	547	522	494	465	463	460	484	486	432	433	432	405	398

Table C-4 (continued)
Per Capita Consumption, 1965-85

1980 international dollars

	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Malawi	190	203	206	203	197	192	232	235	249	256	273	282	274	284	299	292	267	263	279	250	228
Malaysia	823	833	825	827	854	866	1,031	1,061	1,138	1,214	1,176	1,230	1,316	1,412	1,541	1,631	1,641	1,626	1,657	1,693	1,649
Mali	230	217	219	214	204	213	217	215	234	242	245	247	239	256	263	269	263	245	243	314	316
Malta	1,125	1,196	1,289	1,454	1,677	1,845	1,861	1,968	2,029	2,153	2,254	2,506	2,853	2,907	2,934	2,970	3,068	3,193	3,030	3,228	3,490
Mauritania	326	315	312	310	320	330	312	293	279	323	367	354	339	362	373	392	374	387	352	456	408
Mauritius	908	892	931	878	805	833	874	970	1,018	991	1,057	1,165	1,232	1,284	1,316	1,111	1,229	1,103	1,143	1,231	1,244
Mexico	1,835	1,908	1,973	2,087	2,110	2,183	2,225	2,299	2,374	2,417	2,473	2,509	2,588	2,614	2,767	2,895	3,026	2,982	2,762	2,612	2,623
Morocco	731	700	704	740	796	754	770	773	785	801	799	801	797	831	842	854	848	850	841	864	856
Mozambique	710	715	764	803	818	803	804	798	839	705	599	553	546	519	517	493	484	459	469	425	422
Nepal	445	456	423	419	444	450	429	426	402	424	425	409	388	401	372	391	415	420	417	420	428
Netherlands	3,374	3,436	3,581	3,779	4,036	4,307	4,414	4,540	4,709	4,831	4,984	5,263	5,500	5,743	5,865	5,803	5,635	5,513	5,494	5,495	5,563
New Zealand	4,120	4,228	3,704	3,733	3,986	4,104	4,130	4,004	4,756	5,523	4,092	4,345	4,208	4,051	4,590	4,442	4,563	4,330	4,137	4,562	4,446
Nicaragua	1,654	1,671	1,818	1,754	1,713	1,681	1,697	1,664	1,736	1,863	1,801	1,835	1,920	1,722	1,209	1,465	1,302	1,118	1,068	991	813
Niger	259	312	307	304	291	312	300	311	245	328	263	306	270	301	305	319	317	313	313	290	292
Nigeria	492	445	373	376	415	503	559	536	538	564	560	582	593	560	492	490	492	492	414	392	366
North Yemen	NA	NA	NA	NA	393	421	446	529	555	589	653	766	651	708	735	741	726	780	782	678	690
Norway	3,303	3,417	3,533	3,627	3,874	3,848	3,997	4,083	4,172	4,307	4,503	4,754	5,062	4,960	5,101	5,199	5,255	5,304	5,331	5,637	6,123
Oman	NA	NA	436	260	185	182	339	532	272	324	209	174	398	443	520	1,091	1,205	1,544	1,488	1,661	1,992
Pakistan	559	599	622	641	600	589	567	595	642	629	634	656	706	737	800	803	805	812	822	857	888
Panama	1,013	996	1,046	1,041	1,142	1,160	1,210	1,184	1,189	1,291	1,228	1,204	1,260	1,372	1,425	1,425	1,383	1,403	1,370	1,643	1,741
Papua New Guinea	782	793	809	852	917	953	937	862	807	830	818	824	849	890	885	885	872	814	852	829	846
Paraguay	869	871	905	934	943	930	977	987	1,024	1,114	1,111	1,175	1,291	1,354	1,417	1,525	1,595	1,536	1,450	1,573	1,539
Peru	1,312	1,373	1,432	1,423	1,468	1,553	1,594	1,631	1,669	1,697	1,707	1,724	1,706	1,594	1,642	1,698	1,754	1,682	1,475	1,503	1,480
Philippines	695	708	747	777	801	798	805	811	838	868	885	905	920	989	1,001	1,036	1,049	1,062	1,088	1,099	1,002
Portugal	1,372	1,401	1,419	1,625	1,701	1,757	1,991	2,020	2,324	2,516	2,407	2,430	2,420	2,361	2,379	2,441	2,474	2,524	2,431	2,274	2,274
Rwanda	131	187	218	213	232	249	254	250	224	280	278	281	280	287	286	297	291	282	283	273	267
Saudi Arabia	765	771	785	802	871	894	922	928	937	1,030	1,079	1,109	1,352	1,834	2,453	2,820	2,866	3,111	2,690	2,445	2,268
Senegal	573	583	578	578	499	528	520	504	489	493	525	562	551	538	557	551	540	540	514	501	523
Sierra Leone	392	386	346	360	385	405	399	401	415	416	405	408	402	433	441	444	442	426	409	374	329
Singapore	1,456	1,513	1,636	1,727	1,910	2,135	2,381	2,518	2,555	2,746	2,710	2,851	2,937	3,145	3,266	3,423	3,628	3,888	3,634	3,740	4,430
Somalia	328	336	340	341	265	273	280	265	294	294	272	272	266	266	311	256	252	250	234	223	225
South Korea	598	625	652	700	739	809	904	939	1,034	1,136	1,186	1,289	1,327	1,414	1,523	1,463	1,488	1,534	1,612	1,684	1,744
Spain	2,590	2,754	2,899	2,989	3,164	3,254	3,374	3,621	3,878	4,036	4,084	4,212	4,254	4,249	4,250	4,631	4,600	4,536	4,174	4,560	4,652
Sri Lanka	607	649	643	636	670	625	603	603	625	631	623	640	705	725	787	861	953	1,000	1,008	1,121	1,225
Sudan	550	479	435	547	448	434	476	417	408	436	424	428	507	525	488	478	469	435	427	462	381
Surinam	1,183	1,293	1,324	1,417	1,299	1,442	1,505	1,466	1,410	1,391	1,495	1,730	1,986	2,229	2,267	2,432	2,647	2,496	2,532	2,375	2,295
Swaziland	391	454	428	471	569	511	631	761	715	730	840	784	623	645	728	723	780	826	875	910	1,010
Sweden	3,591	3,635	3,707	3,845	3,976	4,017	3,993	4,117	4,216	4,345	4,449	4,618	4,554	4,509	4,607	4,561	4,532	4,583	4,468	4,580	4,703
Switzerland	4,950	5,045	5,128	5,260	5,486	5,660	5,875	6,136	6,260	6,218	6,075	6,214	6,376	6,476	6,559	6,714	6,688	6,706	6,682	6,880	6,998
Syria	1,008	859	979	912	1,123	992	1,099	1,132	1,192	1,589	1,828	1,800	1,768	1,874	2,030	2,193	2,730	2,436	2,302	2,114	2,049
South Africa	1,854	1,907	1,940	2,051	2,158	2,162	2,231	2,189	2,329	2,583	2,477	2,448	2,199	2,242	2,233	2,323	2,485	2,464	2,301	2,400	2,200
Taiwan	713	736	782	826	844	887	939	1,011	1,108	1,135	1,191	1,245	1,307	1,393	1,505	1,556	1,581	1,625	1,694	1,812	1,881
Tanzania	201	208	209	227	219	210	216	208	226	250	244	221	245	262	242	233	212	200	200	212	242
Thailand	643	679	694	712	739	766	782	847	906	918	944	1,000	1,067	1,090	1,131	1,167	1,188	1,160	1,182	1,306	1,281
Togo	404	435	491	503	524	531	519	540	484	467	464	381	362	392	415	407	414	402	375	355	359
Trinidad and Tobago	1,454	1,456	1,481	1,283	1,645	1,639	1,447	1,745	1,861	1,942	2,311	2,345	2,698	3,310	3,468	3,667	3,410	3,424	3,168	4,373	3,644
Tunisia	686	670	641	640	668	733	791	886	938	1,047	1,046	1,091	1,168	1,197	1,231	1,334	1,381	1,383	1,422	1,467	1,482
Turkey	1,062	1,135	1,141	1,194	1,226	1,220	1,358	1,412	1,392	1,466	1,550	1,668	1,732	1,679	1,591	1,479	1,457	1,491	1,532	1,592	1,599
Uganda	269	286	272	265	282	283	302	293	282	277	274	271	270	254	200	205	216	223	231	281	312
United Kingdom	3,334	3,381	3,437	3,532	3,546	3,662	3,772	4,007	4,217	4,160	4,149	4,182	4,190	4,451	4,690	4,679	4,701	4,768	4,992	5,004	5,174
United States	5,352	5,562	5,670	5,919	6,076	6,144	6,287	6,571	6,770	6,657	6,723	7,032	7,293	7,523	7,639	7,594	7,726	7,752	8,036	8,333	8,542
Uruguay	2,418	2,561	2,448	2,392	2,565	2,706	2,715	2,736	2,743	2,688	2,776	2,683	2,660	2,718	2,842	3,081	3,042	2,744	2,545	2,295	2,317
USSR	1,661	1,730	1,819	1,915	1,996	2,076	2,114	2,129	2,159	2,209	2,273	2,314	2,356	2,395	2,478	2,576	2,645	2,656	2,663	2,699	2,711
United Arab Emirates	NA	NA	NA	NA	NA	2,470	2,466	2,260	2,119	3,503	3,649	4,373	5,108	5,022	4,779	4,739	5,488	5,786	5,127	4,939	4,847
Venezuela	1,826	1,823	1,817	1,869	1,964	1,970	1,922	2,041	2,055	2,248	2,448	2,587	2,758	2,927	2,718	2,648	2,539	2,510	2,349	2,074	2,113
West Germany	3,238	3,303	3,328	3,466	3,709	3,970	4,146	4,336	4,448	4,488	4,691	4,917	5,123	5,327	5,513	5,578	5,502	5,391	5,450	5,702	5,819
Zaire	205	238	220	207	217	229	250	266	289	260	248	235	195	162	131	136	134	105	103	118	120
Zambia	467	469	497	541	489	448	412	412	369	403	437	395	343	354	329	350	316	270	271	264	284
Zimbabwe	541	530	545	531	587	585	681	728	712	710	680	644	576	548	547	646	694	715	682	605	587

Table C-5
Total Investment, 1965-85

Million 1980 international dollars

	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Afghanistan	537	542	400	412	447	447	478	419	418	537	622	927	871	1,008	914	840	897	NA	NA	NA	NA
Algeria	1,769	1,340	1,948	2,959	3,843	4,780	4,358	4,780	5,702	8,074	8,925	8,640	10,871	12,794	11,182	11,886	11,445	10,711	11,184	12,865	12,518
Angola	265	296	444	471	479	489	535	537	549	445	222	232	252	292	304	315	296	276	260	269	279
Argentina	19,013	17,697	18,470	20,404	24,800	26,659	29,515	29,675	28,205	28,749	29,202	30,672	36,635	32,532	33,915	36,389	28,047	23,796	20,782	17,969	14,645
Australia	23,892	25,105	25,651	29,591	30,291	31,477	30,952	30,028	35,363	33,157	31,653	33,448	30,736	34,297	32,963	36,676	40,319	32,375	28,447	40,060	41,320
Austria	7,653	8,629	8,488	8,930	9,537	10,926	11,385	12,057	13,291	13,930	12,319	13,757	14,708	13,954	15,223	16,114	14,499	13,344	13,215	15,302	15,806
Bahrain	NA	NA	NA	NA	NA	NA	NA	NA	447	563	453	838	859	886	940	1,056	1,119	1,230	1,107	1,111	1,199
Bangladesh	2,419	2,732	3,688	3,394	3,157	2,399	1,061	1,760	1,190	1,278	1,324	1,807	2,378	2,512	3,216	2,863	2,818	3,129	3,391	4,126	4,335
Barbados	89	90	103	133	134	161	149	149	158	169	160	229	159	201	201	241	259	221	222	241	237
Belgium	12,887	14,007	14,119	14,203	15,670	16,954	16,759	16,833	18,881	20,974	18,293	19,751	19,920	20,557	20,787	21,018	17,626	17,192	17,676	17,069	17,049
Benin	115	121	164	197	207	182	177	235	196	239	263	197	200	186	184	197	231	254	261	91	104
Bolivia	597	610	584	817	759	817	894	1,074	999	976	1,437	1,283	1,327	1,324	1,248	975	818	405	407	386	571
Botswana	13	50	68	106	64	171	269	315	363	314	310	229	314	383	506	514	561	591	518	368	463
Brazil	26,897	29,253	26,870	32,783	40,847	41,590	47,671	52,363	64,093	76,276	84,748	85,897	84,402	85,263	85,653	94,880	79,490	76,031	65,827	64,013	71,499
Burkina	118	118	111	117	141	147	207	264	308	341	339	341	311	322	298	274	273	287	242	232	249
Burma	1,485	285	932	1,342	1,207	1,352	1,121	1,149	971	975	1,047	1,108	1,369	1,876	2,214	2,356	2,642	3,125	3,203	2,122	2,478
Burundi	22	22	24	34	38	35	62	19	39	66	47	71	104	119	125	120	112	143	166	118	101
Cameroon	364	414	451	440	486	473	569	622	618	751	715	681	798	1,036	1,001	1,429	1,511	1,532	1,579	1,807	1,950
Canada	37,056	40,614	38,105	39,311	43,133	39,508	43,840	46,967	53,946	59,688	55,642	60,019	57,793	57,685	64,301	63,098	69,169	55,081	61,627	62,252	65,990
Central African Republic	95	97	120	86	88	117	96	80	91	82	92	99	143	125	113	105	98	94	88	145	149
Chad	79	82	94	90	100	113	120	124	120	168	240	224	254	198	156	123	73	57	50	47	50
Chile	9,921	10,281	9,779	10,513	11,301	11,719	11,579	9,601	9,356	12,420	5,629	6,989	9,040	11,603	13,294	16,845	17,683	8,093	8,335	9,270	9,125
Colombia	4,714	5,642	4,909	5,967	6,056	7,004	7,375	7,259	7,967	9,635	7,955	8,570	9,817	10,348	10,164	11,094	12,479	13,057	12,959	12,175	11,905
Congo	163	240	315	342	341	308	326	321	330	326	340	292	252	222	279	428	681	806	920	535	492
Costa Rica	493	413	441	433	500	570	707	655	777	844	769	972	1,194	1,189	1,299	1,390	865	449	475	989	1,013
Cyprus	469	471	519	526	650	665	695	703	719	478	341	431	681	780	857	870	791	825	844	1,055	953
Denmark	9,814	9,643	9,899	10,295	11,859	12,000	12,024	12,935	14,055	12,695	10,530	13,036	12,584	12,178	12,514	10,547	8,724	9,426	9,333	11,349	12,858
Dominican Republic	300	522	551	549	731	882	1,034	1,163	1,477	1,757	1,900	1,777	1,921	1,973	2,133	2,181	2,510	1,757	1,922	2,502	2,655
Ecuador	1,337	1,334	1,621	1,818	2,139	2,108	2,656	2,315	2,562	3,548	4,158	3,940	4,793	5,356	5,211	5,659	5,444	4,895	3,510	4,372	4,537
Egypt	3,509	2,940	2,661	2,478	3,125	3,205	2,984	2,919	2,885	3,368	5,405	5,300	5,864	7,122	8,082	8,815	8,480	9,192	9,683	8,887	7,416
El Salvador	330	386	338	264	296	325	393	363	475	602	532	593	860	885	681	463	445	379	394	439	407
Ethiopia	446	498	594	607	576	526	578	529	469	474	452	418	356	309	552	672	763	801	871	987	992
Fiji	179	175	192	243	232	243	267	310	334	296	322	322	327	337	449	485	513	286	387	304	332
Finland	9,344	9,235	8,802	8,620	9,751	12,010	12,014	11,580	12,936	15,194	15,097	12,630	11,108	9,770	12,419	14,298	12,856	13,269	13,491	13,683	13,969
France	68,993	77,228	80,884	86,855	99,304	105,869	108,611	118,448	127,813	129,493	112,770	124,353	122,630	124,103	133,010	138,265	126,888	132,730	126,113	126,946	128,482
Gabon	133	176	148	231	251	256	225	398	437	1,087	1,382	2,289	1,572	688	596	865	738	697	717	767	791
Gambia	36	39	33	28	17	28	30	29	36	46	46	61	75	106	112	108	119	122	131	71	88
Ghana	534	493	356	314	362	459	502	250	338	491	419	330	481	322	365	409	385	398	405	342	429
Greece	6,142	5,644	5,778	6,463	8,087	8,867	9,458	10,700	13,809	10,015	10,416	10,728	10,931	11,720	12,746	11,885	10,670	10,519	9,718	9,723	10,223
Guatemala	576	505	614	790	604	730	844	710	841	1,137	954	1,328	1,480	1,631	1,416	1,208	1,392	1,129	959	930	799
Guinea	211	245	210	207	195	207	199	217	231	254	264	249	189	226	244	253	268	264	271	278	281
Guyana	303	450	486	400	379	381	306	301	392	408	554	510	389	259	354	307	355	307	248	236	245
Haiti	73	65	66	72	85	128	130	154	179	199	243	291	308	342	399	411	402	316	362	413	389
Honduras	241	272	354	354	359	366	302	312	393	511	357	361	618	612	666	698	538	380	379	559	511
Hong Kong	2,250	2,045	1,825	1,749	1,952	2,242	2,698	2,832	3,425	3,406	3,568	4,941	5,389	6,272	7,535	8,859	9,616	9,126	8,543	9,171	8,531
Iceland	339	375	416	361	294	304	489	413	516	617	577	496	601	515	533	600	621	638	544	554	579
India	41,162	44,792	45,539	42,979	47,213	53,176	56,264	53,159	61,285	60,629	63,881	65,369	67,907	77,540	72,687	76,259	79,606	84,424	91,278	90,344	94,477
Indonesia	3,569	4,011	3,271	4,567	5,787	7,717	9,368	11,144	13,043	15,538	17,832	18,882	21,885	25,185	26,289	31,269	34,733	39,257	42,327	30,191	31,961
Iran	9,978	10,135	12,808	14,222	14,764	13,666	14,196	19,029	20,457	21,165	33,460	37,177	34,916	16,262	22,995	23,548	22,517	26,983	42,098	41,234	36,267
Iraq	1,832	1,989	1,954	1,941	2,005	2,297	2,315	2,812	3,514	7,259	9,395	7,164	7,760	14,552	19,404	17,585	12,127	10,540	11,482	10,905	10,878
Ireland	2,158	1,935	1,924	2,374	2,928	2,907	2,971	3,289	3,819	3,848	3,088	3,620	4,166	4,734	5,657	4,942	5,270	5,054	4,543	5,088	4,807
Israel	3,246	2,721	2,111	3,126	3,945	4,476	5,449	6,150	6,470	6,255	6,711	6,002	5,255	5,408	6,221	5,402	5,115	5,820	6,115	5,926	5,130
Italy	50,480	52,925	59,899	63,317	70,239	75,276	69,793	71,352	87,790	90,922	67,480	82,268	76,639	76,017	85,347	104,517	88,381	85,622	78,607	85,404	90,519
Ivory Coast	407	437	409	461	546	679	674	645	832	853	891	1,106	1,597	1,873	1,737	1,709	1,451	1,181	1,117	535	536
Jamaica	737	797	880	1,104	1,163	1,183	1,179	1,035	1,199	1,137	1,144	804	529	577	693	504	556	587	622	530	483
Japan	102,639	116,945	142,668	171,892	200,781	236,847	237,740	264,132	304,927	286,844	269,596	282,324	298,054	326,505	353,594	358,598	371,644	378,259	371,849	394,160	414,439
Jordan	307	294	279	407	648	382	440	473	391	556	662	959	1,202	1,219	1,427	1,559	1,937	1,983	1,971	1,511	1,493
Kenya	594	807	924	1,001	1,031	1,464	1,473	1,362	1,673	1,608	1,117	1,261	1,730	2,159	1,589	2,229	2,189	1,695	1,592	1,430	1,543
Kuwait	851	1,066	1,300	1,210	1,292	1,059	1,066	1,090	1,091	1,493	2,326	3,207	4,660	3,979	3,754	3,857	4,380	5,254	5,172	5,532	4,706
Lesotho	25	28	31	31	30	30	43	52	76	74	97	146	217	182	173	175	177	171	167	185	213
Liberia	138	125	132	139	147	128	151	129	111	166	257	258	246	222	276	276	145	144	136	85	71
Luxembourg	646	632	567	516	608	723	845	880	977	850	755	757	726	879	882	1,100	1,016	919	879	900	861
Madagascar	245	256	286	350	379	342	404	311	323	351	323	284	333	308	509	527	352	277	306	300	306

Table C-5 (continued)
Total Investment, 1965-85

Million 1980 international dollars

	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Malawi	123	175	145	165	228	267	229	307	269	383	422	331	283	412	358	305	269	269	269	235	292
Malaysia	2,213	2,347	2,512	2,619	2,469	3,419	4,417	4,819	6,183	8,247	6,492	7,277	8,924	9,648	10,948	12,556	15,036	14,502	15,494	19,522	15,513
Mali	107	134	140	162	150	158	144	157	143	153	151	139	170	225	201	171	151	132	140	98	99
Malta	155	172	203	252	296	283	248	221	206	229	236	294	315	318	348	369	435	541	535	504	489
Mauritania	72	72	121	171	130	150	159	225	165	288	313	349	308	191	177	197	158	166	111	110	114
Mauritius	126	109	116	106	106	104	124	140	218	223	277	309	351	381	405	219	284	224	228	279	351
Mexico	21,966	22,636	24,729	25,974	28,243	32,103	30,552	33,757	38,895	45,675	47,974	46,862	46,724	52,305	61,517	75,050	86,764	61,864	45,224	50,688	56,772
Morocco	543	518	725	1,008	711	1,063	1,055	818	952	1,689	2,147	2,509	2,893	2,552	2,551	2,467	2,185	2,458	2,448	2,058	2,217
Mozambique	370	450	430	510	603	738	779	777	735	532	377	408	420	418	428	446	458	456	394	404	413
Nepal	196	167	180	186	162	223	277	260	366	364	350	385	557	603	791	718	634	761	847	872	896
Netherlands	20,098	21,212	22,692	25,033	26,171	28,699	28,800	27,453	30,446	30,259	25,342	26,662	28,915	29,976	29,320	28,858	22,080	23,508	22,961	25,495	26,763
New Zealand	3,529	3,352	3,745	3,615	3,533	4,240	4,239	5,560	5,544	4,879	6,579	5,558	4,732	5,008	4,278	4,105	4,845	5,526	5,523	6,036	6,409
Nicaragua	599	662	672	576	663	672	694	466	908	1,266	760	778	1,290	547	(239)	635	1,035	796	708	873	746
Niger	80	96	98	107	65	101	79	102	150	147	123	143	372	456	557	581	374	343	320	307	326
Nigeria	2,376	2,232	1,877	1,644	1,891	3,557	4,810	5,270	7,570	7,979	10,347	11,878	13,347	12,219	12,379	13,601	14,342	11,942	9,434	5,953	7,210
North Yemen	NA	NA	NA	NA	160	325	360	352	459	479	602	688	1,483	1,615	1,722	1,696	1,853	1,729	1,161	1,195	1,181
Norway	6,856	7,295	8,045	7,386	7,021	8,599	9,554	8,564	9,800	11,279	12,043	13,233	12,943	10,598	11,104	12,200	11,889	12,767	11,459	14,287	13,232
Oman	NA	NA	256	98	89	131	294	340	306	845	1,071	1,622	1,163	995	1,172	1,324	1,541	1,867	1,946	2,412	2,517
Pakistan	4,629	5,383	5,868	4,825	5,797	5,671	5,324	5,372	5,686	6,029	6,802	7,533	7,458	7,371	7,543	7,751	9,098	10,343	11,188	11,543	12,727
Panama	442	588	621	703	805	948	1,164	1,332	1,383	1,313	1,266	1,254	872	1,089	1,174	1,373	1,546	1,487	1,304	1,002	920
Papua New Guinea	442	475	496	522	965	1,417	1,152	620	521	690	507	550	657	686	811	856	803	897	909	672	584
Paraguay	177	205	227	220	231	214	237	271	374	417	445	547	677	823	990	1,145	1,278	1,129	1,108	835	898
Peru	3,264	4,078	4,004	2,734	2,816	3,050	3,523	2,428	4,477	6,302	6,004	5,236	3,901	3,355	3,417	4,940	5,819	4,746	3,406	3,157	2,520
Philippines	4,357	4,372	5,251	5,823	6,156	5,946	6,094	6,169	6,661	8,573	10,096	10,678	10,725	11,970	13,436	13,784	13,627	13,598	13,201	6,892	5,408
Portugal	3,943	3,927	4,439	4,658	4,691	6,351	6,125	7,039	8,523	7,795	4,262	5,522	7,389	7,886	8,367	9,392	9,372	10,003	7,981	6,476	6,412
Rwanda	40	59	54	52	47	56	64	65	83	102	135	129	139	169	186	198	187	197	225	296	303
Saudi Arabia	761	988	1,189	1,569	1,650	1,319	1,200	1,470	2,260	3,463	7,308	12,458	16,915	21,684	17,990	18,923	27,288	29,599	27,718	33,419	31,420
Senegal	261	230	251	275	299	363	400	445	429	416	441	410	423	402	454	350	354	378	380	385	341
Sierra Leone	154	127	130	144	199	167	128	131	176	178	129	154	148	146	190	212	210	204	207	150	130
Singapore	777	841	998	1,238	1,645	2,465	2,859	3,144	3,235	3,994	3,541	3,840	3,619	4,272	5,015	5,700	6,260	7,377	6,922	8,315	7,288
Somalia	118	128	141	147	151	148	165	185	211	250	261	291	319	344	442	327	335	340	325	504	398
South Africa	14,978	13,537	17,178	15,497	18,451	20,609	22,261	20,108	22,286	25,902	26,859	23,687	22,228	21,476	24,214	30,928	36,887	26,612	24,456	25,266	20,558
South Korea	2,372	4,165	4,688	6,401	8,980	9,012	10,240	9,373	12,404	16,010	16,545	18,185	22,148	29,494	34,855	26,074	27,230	27,281	33,297	37,940	38,544
Spain	23,033	25,826	24,626	25,359	28,376	28,400	27,806	32,211	36,327	42,034	40,292	39,179	36,680	33,645	33,205	37,499	35,448	34,422	31,180	31,970	32,626
Sri Lanka	1,195	1,347	1,454	1,684	2,096	2,272	2,034	2,143	1,750	2,068	2,179	2,961	2,497	4,395	3,328	3,096	2,271	2,295	2,385	2,410	2,557
Sudan	1,042	1,173	1,093	1,196	909	1,143	893	1,162	1,345	1,635	1,673	2,133	1,837	1,570	1,595	1,723	1,927	1,888	1,915	2,101	1,599
Surinam	193	140	149	138	135	133	135	162	164	223	283	229	282	227	221	207	229	231	207	172	166
Swaziland	46	46	35	38	40	57	72	68	74	62	69	80	94	176	172	188	155	149	140	151	173
Sweden	14,225	14,048	14,166	14,387	15,660	17,364	15,918	15,763	15,852	17,543	18,822	18,353	15,554	13,540	15,785	17,095	14,488	14,120	14,190	15,249	16,780
Switzerland	14,394	14,404	15,047	15,254	16,125	18,820	19,713	19,795	20,329	20,870	15,077	14,247	14,294	15,231	17,294	19,743	18,744	18,028	18,566	19,222	20,209
Syria	879	1,060	1,022	1,259	1,601	1,261	1,511	2,048	1,247	3,036	3,814	4,904	4,957	4,915	4,484	4,861	4,964	5,201	5,476	5,422	5,669
Taiwan	2,253	2,364	3,107	3,605	3,909	4,699	5,500	6,112	7,283	9,631	8,405	9,621	9,914	11,166	13,713	14,490	14,520	12,907	12,932	13,332	11,655
Tanzania	474	530	624	686	620	901	1,001	920	896	1,089	1,067	1,062	1,104	1,106	1,179	1,183	1,191	1,163	1,221	1,328	1,457
Thailand	4,341	5,737	6,130	6,795	8,204	8,208	7,788	7,131	9,266	10,077	10,575	10,330	13,434	14,604	15,879	15,621	15,778	13,288	14,657	16,981	16,600
Togo	162	124	105	102	124	152	188	207	217	224	333	267	413	520	555	418	268	203	159	181	224
Trinidad and Tobago	949	832	791	721	601	810	997	1,046	944	944	1,012	1,293	1,821	2,085	2,526	2,268	2,403	2,504	2,444	2,189	2,067
Tunisia	623	611	616	628	648	618	716	907	780	969	1,272	1,354	1,451	1,634	1,768	1,784	2,161	2,161	2,309	2,287	1,987
Turkey	7,092	9,547	9,659	10,684	10,993	13,250	12,395	14,048	14,447	19,240	22,869	26,819	26,712	19,449	19,830	22,393	23,627	22,912	23,708	25,056	27,359
Uganda	138	136	160	168	202	166	191	117	118	131	99	94	96	90	82	86	188	199	209	258	298
United Arab Emirates	NA	NA	NA	NA	NA	900	1,034	1,848	2,222	1,564	3,404	4,227	6,245	5,905	6,373	6,626	6,349	6,330	6,267	6,580	5,643
United Kingdom	62,618	62,512	67,044	71,682	72,151	74,344	73,280	71,758	85,156	78,756	66,973	75,885	77,362	79,163	81,030	66,162	60,523	67,903	72,912	79,072	80,204
United States	372,765	396,438	388,286	403,946	418,647	387,529	427,417	470,123	521,375	484,233	407,421	462,840	531,254	584,138	576,267	512,076	565,075	484,935	542,603	658,214	734,355
Uruguay	673	705	761	676	860	923	924	792	561	668	1,029	1,336	1,636	1,964	2,617	2,889	2,601	2,080	1,462	1,403	1,084
USSR	206,840	223,290	240,203	249,891	263,797	278,611	310,414	335,043	368,639	385,711	390,995	436,305	470,829	498,016	485,729	477,793	550,527	529,636	578,622	619,468	677,794
Venezuela	4,196	4,019	4,176	5,097	4,872	5,578	6,311	6,408	7,146	7,775	9,213	10,658	13,423	13,663	13,034	12,356	12,874	12,989	8,198	8,122	8,044
West Germany	121,273	118,070	105,434	120,003	135,155	146,488	146,200	149,407	152,916	133,046	119,656	135,767	139,216	144,896	163,253	164,449	149,733	144,743	153,752	154,704	154,974
Zaire	222	202	214	225	319	395	518	524	570	615	566	440	844	402	633	1,148	866	679	722	792	702
Zambia	978	1,202	1,367	1,398	1,080	1,556	1,643	1,735	1,630	1,958	1,753	998	862	864	430	777	580	493	508	359	388
Zimbabwe	602	627	759	989	882	990	1,115	1,114	1,356	1,766	1,753	1,235	1,115	816	713	803	1,591	1,436	980	804	1,358

Table C-6
Physical Indicators, 1980

Country	Infant Mortality[a]	Life Expectancy[b]	Persons Per Physician	Persons Per Hospital Bed	Literacy Rate[a]	Newspapers[c]	Calories[d]	Calories: Veg. Sources	Calories: Animal Sources	Protein[e]	Protein: Veg. Sources	Protein: Animal Sources
Argentina	4.5	70.4	530	153	93	98	3195	2219	976	104.4	38.5	65.9
Austria	1.4	73.0	400	88	100	351	3453	2120	1333	91.7	33.5	58.2
Belgium	1.2	73.0	402	108	99	228	3582	2112	1470	102.0	37.5	64.5
Bolivia	13.1	50.2	1970	480	63	39	2084	1743	341	54.5	36.8	17.7
Brazil	7.7	63.1	1647	245	76	44	2630	2267	363	60.6	39.7	20.9
Cameroon	10.9	49.6	13681	372	40	3	2074	1981	93	47.9	40.8	7.1
Canada	1.0	74.6	548	112	99	241	3443	2217	1226	94.3	36.2	58.1
Chile	4.3	67.1	1925	280	89	87	2642	2200	442	72.5	44.9	27.6
Colombia	5.6	62.9	1969	594	81	48	2578	2204	374	56.7	33.1	23.6
Costa Rica	2.8	72.2	1456	292	90	70	2621	2140	481	63.9	32.9	31.0
Denmark	0.8	74.9	482	119	99	367	3585	1934	1651	101.4	31.5	69.9
Dominican Republic	6.8	61.4	1867	356	67	42	2316	2008	308	50.3	30.6	19.7
Ecuador	8.2	61.2	1622	486	81	49	2063	1698	365	46.8	24.3	22.5
El Salvador	7.8	63.0	3179	567	62	75	2163	NA	NA	49.8	34.5	15.4
Ethiopia	14.6	45.9	57689	3016	15	2	1729	NA	NA	63.3	NA	NA
Finland	0.8	74.2	530	64	100	480	3074	1750	1324	93.2	32.6	60.6
France	1.0	75.1	580	82	99	205	3338	2124	1214	106.6	36.2	70.4
Greece	1.8	73.4	423	158	84	107	3660	2781	879	107.8	54.6	53.2
Guatemala	6.6	58.5	4427	457	46	13	2220	2009	211	59.5	44.7	14.8
Honduras	8.8	58.2	3120	742	57	63	2197	1926	271	54.3	38.6	15.7
Hong Kong	1.3	74.5	1278	233	77	327	2728	1949	779	84.0	32.5	51.5
Hungary	2.3	70.4	400	113	99	242	3522	2250	1272	94.9	43.1	51.8
India	12.3	51.8	3586	1254	36	20	2161	2036	125	52.4	46.1	6.3
Indonesia	10.5	53.1	11740	1751	57	17	2504	2450	54	51.5	46.0	5.5
Ireland	1.1	73.0	807	95	98	229	3713	2253	1460	105.2	40.4	64.8
Israel	1.4	72.9	384	180	88	227	2993	2330	663	101.3	48.0	53.3
Italy	1.4	73.4	340	96	98	93	3486	2526	960	104.7	49.1	55.6
Ivory Coast	12.7	46.3	20900	804	35	7	2570	2383	187	56.4	40.9	15.5
Japan	0.7	76.5	783	94	99	569	2804	2263	541	85.6	41.9	43.7
Kenya	8.7	55.3	9900	601	47	10	2162	1951	211	58.0	44.5	13.5
Madagascar	7.1	47.1	10221	405	34	8	2510	2315	195	57.6	43.8	13.8
Malawi	17.2	43.9	47640	594	22	5	2473	2375	98	69.9	63.7	6.2
Mali	15.4	44.3	23135	1834	9	1	1751	1588	163	50.4	36.5	13.9
Morocco	10.7	56.5	11100	771	28	14	2688	2511	177	71.4	59.7	11.7
Netherlands	0.9	75.7	560	83	99	325	3352	2012	1340	92.7	31.6	61.1
Nigeria	13.5	48.6	11330	1069	34	11	2060	1987	73	45.0	38.0	7.0
Norway	0.8	75.9	520	66	98	456	3375	2065	1310	109.3	33.9	75.4
Pakistan	12.6	49.8	3533	1613	21	14	2219	1986	233	52.5	44.6	7.9
Panama	2.2	70.4	1129	251	85	79	2321	1903	418	59.0	28.8	30.2
Paraguay	4.7	64.6	1747	694	80	30	2780	2219	561	77.7	45.5	32.2
Peru	8.8	57.5	1480	547	80	51	2179	1894	285	59.0	37.1	21.9
Philippines	5.5	62.8	2755	597	83	21	2355	2122	233	52.5	33.2	19.3
Poland	2.1	72.3	542	131	99	237	3252	2227	1025	97.5	46.0	51.5
Portugal	2.6	71.5	540	187	71	50	3135	2556	579	84.5	50.3	34.2
Senegal	14.7	43.4	13759	850	13	5	2389	2210	179	67.2	50.5	16.7
South Korea	3.4	65.4	1693	636	88	173	2822	2539	283	73.6	55.3	18.3
Spain	1.1	73.6	455	186	92	128	3337	2433	904	96.3	43.9	52.4
Sri Lanka	4.4	68.4	4007	345	86	42	2228	2128	100	43.6	35.1	8.5
Tanzania	10.3	51.1	16800	490	79	11	2427	2287	140	52.6	42.1	10.5
Tunisia	9.0	60.2	3686	436	38	44	2772	2528	244	77.3	60.7	16.6
United Kingdom	1.2	73.3	640	116	99	450	3130	2012	1118	85.5	34.3	51.2
United States	1.3	74.5	524	164	99	282	3652	2388	1264	104.4	35.1	69.3
Uruguay	4.0	70.9	533	237	94	267	2832	1782	1050	87.4	31.2	56.2
Venezuela	4.2	67.4	888	317	76	176	2551	2020	531	69.0	35.0	34.0
West Germany	1.3	73.0	452	85	99	423	3476	2161	1315	92.8	33.9	58.9
Yugoslavia	3.3	70.4	732	169	87	103	3587	2773	814	103.1	64.4	38.7
Zambia	10.6	50.2	7913	212	44	19	2203	2076	127	59.2	48.1	11.1
Zimbabwe	12.2	54.5	6576	350	69	17	2111	1970	141	54.3	45.8	8.5

Table C-6 (continued)
Physical Indicators, 1980

Country	Meat Consumption[a]	Fish Consumption[a]	Energy Consumption[f]	Steel Consumption[g]	Newsprint Consumption[h]	Radios	Televisions	Personal Automobiles[c]	Telephones	Labor Force: Agriculture[d]	Labor Force: Industry[d]	Cement Production[i]
Argentina	269	13	2161.0	121	7517	387	185	109	103	13.1	28.0	244.8
Austria	205	10	5101.9	362	18719	440.23	295	311	421	8.5	36.7	704.1
Belgium	242	31	7431.1	402	19014	456.43	355	328	387	2.9	41.1	679.1
Bolivia	70	2	452.3	9	1575	89.77	18	9	24	49.8	24.2	46.1
Brazil	85	13	1101.5	112	2287	169.25	123	77	62	29.9	24.4	205.0
Cameroon	38	24	153.6	NA	73	90	0.0	8	4	83.0	7.0	32.7
Canada	272	25	13153.0	575	40132	1109.02	471	417	670	4.9	28.9	396.2
Chile	84	34	1137.0	66	5106	292.7	110	31	51	19.2	19.4	102.8
Colombia	61	9	970.4	35	1707	116.25	87	23	57	25.8	21.2	162.5
Costa Rica	61	9	828.9	85	5271	78.98	71	39	104	29.0	23.0	186.9
Denmark	167	56	5746.2	369	33177	380.63	368	265	669	6.6	35.4	312.9
Dominican Republic	47	8	517.1	22	460	40.51	71	18	30	49.0	18.0	181.4
Ecuador	49	16	692.3	41	1385	317.21	60	26	33	51.6	17.1	124.7
El Salvador	32	8	356.9	23	3144	341.41	66	16	15	50.5	22.4	108.4
Ethiopia	49	2	24.5	1	36	8.05	1	1	3	80.0	7.0	4.0
Finland	151	42	6350.8	279	29343	836.99	322	279	552	11.4	34.5	373.8
France	241	47	5367.7	360	11478	894.57	297	374	498	8.1	38.9	525.6
Greece	148	32	2604.8	167	4544	344.83	156	102	303	36.6	28.0	2339.0
Guatemala	35	2	307.9	27	1347	39.79	24	23	11	55.0	20.5	70.9
Honduras	35	2	292.0	19	682	47.68	13	15	7	62.6	14.6	70.4
Hong Kong	172	119	1881.1	247	19727	503.16	220	43	368	3.0	57.0	300.0
Hungary	169	9	4093.6	377	5918	252.08	258	103	121	20.5	42.6	435.1
India	4	7	209.6	16	328	44.44	2	2	4	69.3	13.2	30.6
Indonesia	9	20	265.7	9	613	42.36	10	5	3	55.0	15.0	29.5
Ireland	239	21	3770.2	134	15470	453.58	237	203	208	18.4	37.3	570.0
Israel	174	29	2813.0	170	13405	207.18	150	115	333	7.0	36.0	595.3
Italy	166	25	3724.7	332	4485	245.39	238	329	361	10.7	45.3	733.0
Ivory Coast	63	49	247.7	29	110	121.03	36	23	11	79.0	4.0	106.1
Japan	89	114	4648.8	535	21290	678.19	539	215	479	12.0	39.0	726.4
Kenya	43	5	208.2	18	327	32.45	4	7	12	78.0	10.0	75.8
Madagascar	68	16	74.1	6	399	195.09	5	6	4	87.0	4.0	6.9
Malawi	16	16	58.7	4	19	45.55	0.0	2	5	86.0	5.0	18.2
Mali	34	13	30.6	NA	16	13.43	0.0	3	2	72.6	11.7	4.9
Morocco	39	12	367.8	33	392	148.65	37	21	11	52.0	21.0	175.9
Netherlands	185	25	8068.2	355	29527	309.39	296	324	544	6.1	44.8	264.8
Nigeria	20	6	168.9	19	345	66.09	5	3	3	54.0	19.0	19.1
Norway	127	73	11927.6	376	27255	326.72	292	325	485	6.9	36.6	435.7
Pakistan	14	3	223.8	8	0.2	67.02	10	12	4	57.0	20.0	43.1
Panama	99	26	1622.6	63	2301	155.31	120	51	93	27.3	18.1	135.5
Paraguay	170	3	300.3	4	2251	63.71	20	12	19	49.1	19.4	52.4
Peru	69	35	806.9	34	2183	165.56	51	18	27	39.8	18.5	119.0
Philippines	43	81	379.8	34	1833	43.48	21	10	14	46.0	17.0	87.3
Poland	136	33	5798.5	561	3685	243.55	224	79	97	30.6	39.3	399.8
Portugal	120	110	1821.9	153	3379	161.61	142	128	147	28.2	35.1	600.7
Senegal	36	73	363.5	11	932	52.6	1	10	7	76.9	10.0	65.3
South Korea	19	88	1563.0	226	4933	392.69	164	8	107	34.0	29.0	409.5
Spain	150	87	2944.2	179	4340	256.48	252	220	327	14.4	40.3	765.9
Sri Lanka	8	21	201.3	9	646	98.66	2	8	6	54.0	14.0	39.6
Tanzania	33	19	68.7	8	113	26.98	0.4	2	5	83.0	6.0	15.9
Tunisia	45	14	652.4	65	805	157.01	47	20	31	35.0	32.0	317.4
United Kingdom	197	36	5362.8	348	23763	947.38	331	280	495	1.9	42.1	284.5
United States	304	24	11625.8	670	45430	2098.76	624	534	788	2.0	32.0	285.1
Uruguay	285	15	1159.9	11	4201	560.52	125	96	99	10.8	32.4	231.8
Venezuela	115	24	3039.3	222	8026	358.34	115	103	58	18.0	26.8	228.0
West Germany	220	18	6052.9	525	19039	369.55	337	390	488	3.8	46.4	511.7
Yugoslavia	102	7	2401.7	246	3588	207.44	192	114	102	29.0	35.0	435.1
Zambia	44	25	733.4	6	381	23.9	11	17	10	67.0	11.0	24.7
Zimbabwe	84	5	778.0	110	1.9	43	11	10	30	60.0	15.0	78.3

[a] Percent
[b] Years
[c] Per 1,000 population
[d] Per capita per day
[e] Grams per capita per day
[f] Kilogram coal equivalent
[g] Kilograms per capita
[h] Kilograms per 1,000 population
[i] Metric tons per 1,000 population