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# The Soviet Economy Shows Some Improvement, but Hard Choices Remain

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An Intelligence Assessment

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*SOV 85-10005*
*January 1985*

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This paper was prepared by

Office of Soviet Analysis. Contributions were provided by SOVA.

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## The Soviet Economy Shows Some Improvement, but Hard Choices Remain

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### Key Judgments

*Information available as of 20 December 1984 was used in this report.*

Recent Soviet economic performance has been mixed. Average annual growth of GNP since 1982—slightly under 3 percent per year—is up from the unusually low rates of 1979-82. It is still below the moderate rates of increase posted in the early 1970s, however, and substantially below the relatively high rates of the late 1960s. 25X1

In 1983, growth in most sectors of the economy speeded up from the slow rates of the previous four years. This acceleration reflected improvement in several major factors:

- Warmer winter weather helped transportation and slightly eased the demand for energy, while better growing conditions contributed to an increase in farm output.
- Discipline and anticorruption initiatives seem to have generated greater effort in both labor and management, including their more efficient use of resources.
- Substantial growth in new plant and equipment helped reduce raw material and transportation bottlenecks.
- Stable military procurement since the mid-1970s may have eased the pressure on the machinery industry, which also supports investment.
- Productivity improved substantially because of these changes. 25X1

Although difficulties in agriculture pulled GNP growth down to about 2 percent this year, the higher rate of growth in industry and key service sectors has continued. Agricultural production fell slightly in 1984—the output of several major crops was down from the 1983 level, even though livestock output reached new record levels. Outside agriculture, growth for the year should equal the 1983 rate of 3 percent. 25X1

Growth in 1983 was most rapid in investment—the key to modernizing the economy—while consumption grew at a rate somewhat below that of GNP. 25X1 The rate of investment growth in 1984 is hard to establish, but consumption has grown at roughly the 1983 rate, or perhaps a little faster. There have been no clear signals about 25X1 changes in the level of outlays for defense, but recent increases in overall growth in the economy suggest that Soviet planners could have increased growth in defense spending while still allowing somewhat higher growth in investment and consumption. Major changes in the shares of these uses, however, can be made only slowly. 25X1

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The annual plan recently announced for 1985 implies a growth rate target for GNP of 3½ to 4 percent—a rate we think is optimistic. Assuming that crops recover somewhat and that recent improvement in nonagricultural economic performance continues, GNP growth probably will average about 3 percent over the next year or two. This outlook for GNP could worsen, however, if new transport or industrial bottlenecks arise, or if the gains from improved labor discipline are not sustained. On the up side, unusually good weather could lead to a surge in growth.

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Over the second half of the 1980s we expect GNP growth to average 1½ to 2½ percent per year. This is below the rate of the last half of the 1970s, when the Soviet industrial growth slowdown first became evident. This somewhat lower outlook for growth over the long term reflects our judgment that the special factors contributing to improved performance in 1983 and 1984 probably will be hard to sustain or expand beyond the next year or two. Two fundamental factors will continue to constrain growth, as they have since the late 1970s. These are the slowing growth of the labor supply and the rising costs of extracting, processing, and transporting raw materials. In addition, energy supplies could become a drag on growth if export levels are kept high and the Soviets do not meet their aggressive energy conservation plan. Clearly, the drag on growth exerted by slow labor force growth and rising costs of raw materials will get worse later in the 1980s, before possibly easing a bit in the next decade.

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The potential for easing these constraints on growth through greater investment is limited, however. Machinery output cannot expand fast enough to support high growth in deliveries for defense and investment without limiting growth in consumer durables, and this would work against recent policies to improve worker incentives. Given the need to step up the replacement of obsolete equipment, problems with assimilating new technology, and the Soviets' highly centralized management and incentive system, overall productivity probably cannot do more than hold steady.

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Overall, recent speeches on the 1985 plan and budget seem to reaffirm the policy that the leaders have been following for the last few years. This has been an effort to provide at least some growth in living standards, continuing growth in fixed investment near recent rates, and some growth in resources committed to defense. Given the reaffirmation, we believe the recently announced 12-percent increase in the official defense budget is a political statement rather than an accurate guide to planned defense spending.

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Although these growth prospects do not suggest that the Soviets are facing an economic crisis, this growth is too low to enable the Soviet leadership to meet ambitious goals for modernizing industry and the military while raising living standards at perceptible rates. Even if the economy grows in the second half of the 1980s at an average rate of 3 percent a year (above the average rate we believe likely), it would not enable Moscow at one and the same time to improve living standards at past rates, to meet rising investment requirements, and to return defense spending growth rates to those before the mid-1970s. Our analysis indicates that, at current rates of growth in investment and defense spending, growth in per capita consumption would slow further during 1986-90, meaning little perceptible gain for the average consumer. Moreover, any substantial shift toward defense would endanger consumer programs. With present per capita consumption in the USSR substantially below even most East European standards, such limited prospects suggest little likelihood for gains in worker morale that would have important implications for growth in general.

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## Contents



**Figures**

**Tables**

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# The Soviet Economy Shows Some Improvement, but Hard Choices Remain

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## Introduction

The rate of Soviet economic growth declined fairly steadily from the late 1960s for more than a decade, with a sharp drop after 1978. Performance was particularly bleak during 1979-81, when unusually cold and snowy winters snarled transportation and interrupted industrial production and poor-to-mediocre grain harvests held agricultural output down.

The Soviet Union is now in a period of improved economic performance, but we believe the scope of the recovery is limited and its longer term implications are probably small. This paper reviews the performance in 1983 and 1984 and identifies the major factors responsible for the upturn in growth. Taking account of this recent record, we also give a range within which future Soviet growth is likely to fall and examine major influences on that projected range. Last, we consider the consequences of these prospects for Soviet policy options.

## Economic Performance in 1983 and 1984

Soviet economic growth accelerated in 1983 from the unusually slow rates of 1979-82, when GNP growth averaged only about 1½ percent per year. In 1983, GNP increased by 3½ percent—somewhat faster than we had projected for the 1980s. Performance in industry, transportation, and agriculture improved markedly. Production of key basic materials turned upward, railroads operated more effectively, and agricultural production reached a new high.

In 1984, growth outside agriculture has continued at about last year's rate. In agriculture, however, a downturn in crop output in 1984 is likely to cause GNP growth for the year to slip to about 2 percent. Industrial growth through the first 11 months appears to be at least as high as in 1983, and retail trade also has done well. Transportation growth has been slower than in 1983, partly because the gain in that year included a rebound from the very poor performance in 1982. Figures for Soviet economic growth are presented in table 1.

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Although General Secretary Chernenko noted a recent acceleration in national income growth in his November 1984 address to the Politburo, this better performance does not suggest a return to the rapid (over 5 percent) growth of the late 1960s, nor even to the brisk (nearly 4 percent) growth of the early and mid-1970s. It does show that Soviet managers have had some success in fine-tuning the economy. They have corrected some of the problems that were slowing growth and reducing productivity—shortages of key raw materials, railroad tieups, lax labor discipline, and weak links between production responsibility and results. While recent Soviet growth is respectable by Western standards, it does little to lessen the tight internal competition for resources. It also gives little hope for much improvement in average Soviet living standards.

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### Key Sector Performance

In any consideration of Soviet economic growth, it is useful to separate agriculture from the other sectors because it is so volatile, being heavily affected by weather. Performance in nonagricultural areas—industry and key services—has shown slow but improved overall growth in both 1983 and 1984, at an annual rate of about 3 percent (figure 1). This is well below the average annual rate of the late 1960s and early 1970s, though it approaches that of the mid-1970s.

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***Industry.*** Soviet industry, which accounts for over one-third of GNP and is a key source of growth over the long term, showed stable growth in both 1983 and

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**Table 1**
**USSR: Growth of GNP and Selected Sectors of the Economy**

*Average annual percentage growth*

| | 1971-75 | 1976-78 | 1979-82 | 1983 [a] | 1984 [b] |
|---|---|---|---|---|---|
| GNP [c] | 3.7 | 3.7 | 1.6 | 3.6 | 2.0 |
| Agriculture [d] | −0.4 | 5.2 | −0.9 | 6.5 | −1.0 |
| Nonagriculture | 5.1 | 3.3 | 2.3 | 3.1 | 3.0 |
| Industry | 5.9 | 3.8 | 2.4 | 3.7 | 3.9 [e] |
| Construction | 5.6 | 2.9 | 0.9 | 3.2 | 3.0 |
| Transportation | 6.5 | 2.7 | 2.8 | 2.6 | 1.1 |
| Trade | 4.6 | 3.1 | 2.1 | 3.3 | 3.7 |
| Services | 3.4 | 2.6 | 2.5 | 2.3 | 2.2 |

[a] Preliminary.
[b] Projection based on 11-month performance indicators.
[c] Value added at 1970 factor cost.
[d] Excludes intra-agricultural use of farm products but does not make an adjustment for purchases by agriculture from other sectors.
[e] Civilian industry only.

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**Table 2**
**USSR: Growth of Industry**

*Average annual percentage growth*

| | 1971-75 | 1976-78 | 1979-82 | 1983 [a] | 1984 [b] |
|---|---|---|---|---|---|
| Industry [c] | 5.9 | 3.8 | 2.4 | 3.7 | 3.9 |
| Industrial materials | 5.2 | 2.4 | 0.7 | 3.9 | 3.3 |
| Ferrous metals | 4.0 | 1.9 | −0.3 | 2.7 | 1.5 |
| Nonferrous metals | 5.9 | 2.3 | 1.8 | 3.0 | 3.0 |
| Chemicals | 8.6 | 4.5 | 2.6 | 6.5 | 4.5 |
| Wood products | 2.6 | −0.1 | −0.1 | 4.0 | 4.1 |
| Construction materials | 5.4 | 3.2 | −0.7 | 2.3 | 2.8 |
| Energy | 5.9 | 4.3 | 2.5 | 2.5 | 2.9 |
| Fuel | 5.0 | 3.7 | 1.9 | 1.4 | 1.1 |
| Electric power | 7.0 | 5.0 | 3.2 | 3.7 | 5.2 |
| Machinery [d] | 7.8 | 5.4 | 3.9 | 4.6 [e] | 5.6 [f] |
| Consumer nondurables | 3.6 | 2.1 | 1.7 | 2.1 | 1.6 |
| Soft goods | 2.7 | 3.0 | 1.4 | 1.1 | 1.7 |
| Processed food | 4.2 | 1.2 | 1.9 | 3.0 | 1.6 |

[a] Preliminary.
[b] Projection based on 11-month performance indicator for civilian industry.
[c] This index of total industrial production (a weighted average of 10 industrial branch indexes) measures industrial output by branch as value added at 1970 factor cost.
[d] Includes production for military use for 1971-83, excludes military-related production for 1984.
[e] The rate shown reflects a tentative estimate of growth in military machinery production, which is subject to change as our estimates of military procurement are revised.
[f] Includes civilian machinery component only. The indicators for the output of military machinery are too uncertain for even a tentative estimate at this time.

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**Figure 1**
**USSR: Growth of GNP and Nonagricultural GNP, 1971-84**

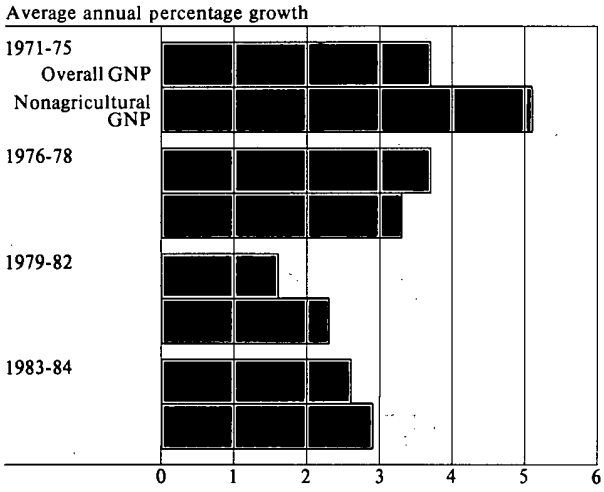


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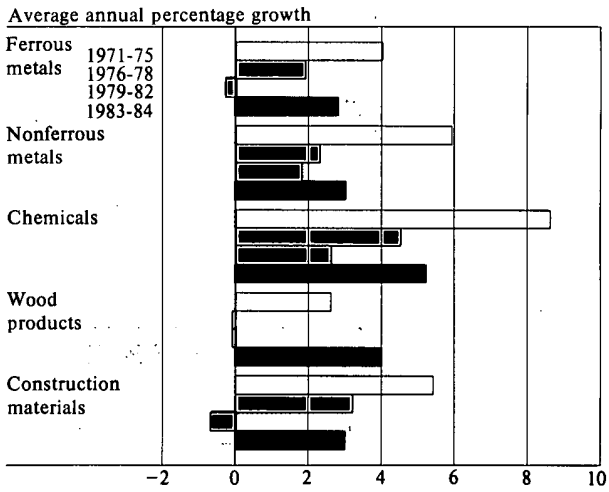
**Figure 2**
**USSR: Growth of Output of Key Industrial Materials, 1971-84**

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1984 at over 3½ percent (higher than the rate for nonagricultural GNP as a whole). Performance by branches within industry changed in 1984, however (table 2). In 1983, average growth was higher than in 1984 in branches of industry producing industrial materials. The energy and consumer goods sectors were less dynamic in 1983, but machinery growth increased; in 1984, machinery production is leading overall industrial performance, but problems in fuels have continued.

*Industrial Materials.* In the recent production upturn, the most significant improvement in growth has been in branches producing industrial materials—the raw materials and intermediate products used throughout Soviet industry. These branches faltered in the last half of the 1970s (figure 2). Their sluggish performance transformed some of these industries into bottlenecks, as they were unable to supply the materials required by the plan. Production in these branches grew by almost 4 percent in 1983 and 3.3 percent in 1984 and was well above their average annual growth (0.7 percent) during 1979-82.

*Energy.* Growth of electric power has increased since 1982, but growth in the fuel industry has continued to fall (figure 3). The contribution to GNP of the combined output of fuels grew by a little over 1 percent per year in 1983 and 1984, whereas this figure had been about 2 percent during 1979-82.[1] Oil production in 1984 may show its first yearly decline since World War II. Coal production too continues to fall slowly. Offsetting the decline in production of these types of energy, however, is the robust growth in gas output, which is likely to increase by 10 percent in 1984. Electric power also is showing improvement: growth in output of electric power in 1984 will be higher than in any other year since the mid-1970s.

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*Machinery.* Growth in total machinery production—the source of consumer, investment, and defense

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[1] In standard fuel units, fuel output grew by 2.4 percent in 1983 and 2.9 percent in 1984; it grew by 2.8 percent per year during 1979-82.

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**Figure 3**
**USSR: Growth of Output of Fuels and Electric Power, 1971-84**

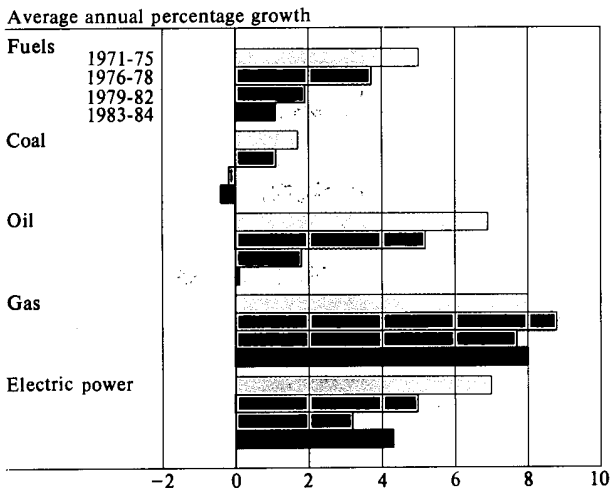


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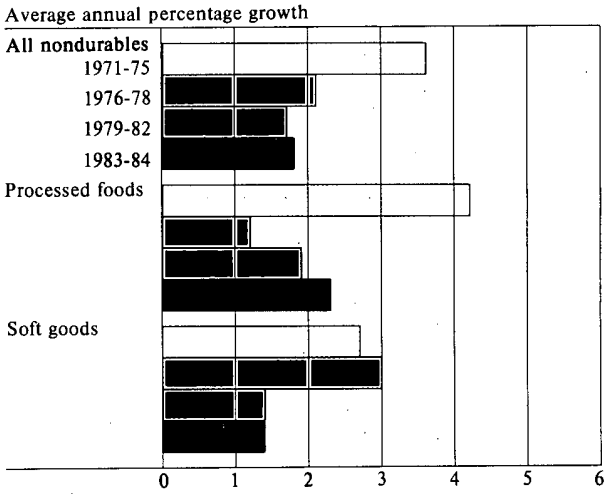
**Figure 4**
**USSR: Growth of Output of Consumer Nondurables, 1971-84**

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durables—traditionally has been well above the Soviet industry average. It picked up in 1983 and accelerated further in 1984, led by the increased production of high-technology equipment and other producer durables.[2] Nonetheless, growth in production of much-needed transportation equipment and oil equipment has remained slow.

*Consumer Nondurables.* Overall growth in consumer nondurable goods did not turn up in 1983-84 (figure 4). Recent growth has continued at the average annual rate for 1979-82—less than 2 percent. The continued decline in growth of soft goods was offset in 1983 by a step-up in annual growth of processed food. To a large extent, performance in the latter sector is the result of larger harvests of vegetables and fruit and of Moscow's continued large imports of grain (instrumental in spurring growth in the output of milk and meat).

[2] Our estimates of defense spending for 1983 are tentative, and our estimate of the growth of machinery production for that year may change as the defense estimates are revised. Our estimates of machinery growth in 1984 include civilian production only.

***Transportation.*** Transportation—a key service sector—was another of the economic sectors that rebounded in 1983 from a very poor performance in 1982 (figure 5). Freight traffic in ton-kilometers grew by 5 percent in 1983, 4 percentage points above the rate of the previous year. Rail transport was the major factor in the 1983 upturn, more than picking up the slack caused by a decline in the volume of traffic carried on highways and rivers. Railroads, which carry 70 percent of nonpipeline traffic, carried 4 percent more traffic in 1983 than in 1982 and another 2 percent more in 1984. The amount of gas transported by pipelines has averaged a growth of 13 percent per year since 1980. Although preliminary indicators point to a somewhat lower rate of increase for the sector in 1984, the rate still remains high enough to accommodate a continued stronger pace for industrial growth.

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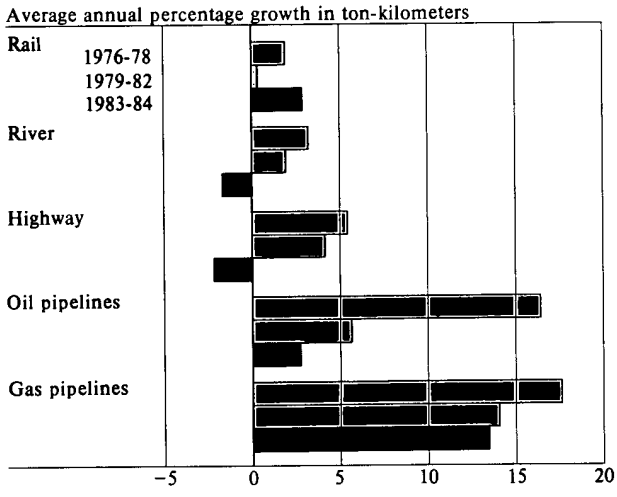
**Figure 5**
**USSR: Growth of Transportation Activity, 1976-84**

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***Agriculture.*** Farm output rose by 6½ percent in 1983, spurred by record production of livestock products—meat, milk, and eggs. The recent emphasis on increasing the tonnage and quality of such forage crops as hay and silage—aided by longer and more favorable growing seasons in 1982 and 1983—boosted feed supplies and led to higher milk yields and heavier slaughter weights well into 1984. A mild fall (which brought the forage crop close to the 1983 record) helped sustain meat and milk production, and we expect new livestock production records again in 1984. Nonetheless, farm output as a whole will be down slightly from the 1983 peak, as production will slip below its 1983 level for several major crops. The grain crop in particular is estimated to be only 180 million metric tons this year; this is 15 million tons below the 1983 level and 25 million tons below the average level during 1976-80.

**Recent Trends in Resource Policies**

Although two recent leadership changes have created some opportunity to adjust policies, it is difficult for Moscow to make sudden large-scale shifts of resources among the three major categories of uses—investment, consumption, and defense. In the 1983 upturn of overall economic growth, the share of investment in GNP rose slightly, while the share of defense remained roughly constant; consumption's share of GNP slipped slightly. Preliminary information for 1984 does not indicate any meaningful change in these shares. Despite some acceleration in growth over the last two years, competition for resources in the economy remains tight. 25X1

***Investment.*** During the 1981-85 Plan period, new fixed capital investment is taking a slowly rising share of GNP, and this suggests that planners have recently given it higher priority. Investment increased at an average rate of over 4 percent a year during 1981-83, and the 1984 economic plan called for a similar increase. Fragmentary information on actual 1984 investment, however, suggests that it is below plan. 25X1

***Consumption.*** Chernenko, like Brezhnev and Andropov before him, has shown considerable concern for the welfare of the Soviet consumer through some of the policies he has supported. To increase the availability of meat, dairy products, fruits, and vegetables, about one-third of Moscow's total hard currency outlays were spent on farm products in 1983. The Soviets also have stepped up the construction of new housing; the increase in 1983 in new housing completions was the largest rise in more than two decades. 25X1

Nonetheless, during the 1980s per capita consumption levels have risen quite slowly—remaining flat in 1982 and increasing by only about 1½ percent in 1983. Our preliminary estimate is that the gains in 1984 will be about the same as in 1983 or perhaps slightly greater. Despite growth through most of the postwar period, however, Soviet consumption per capita remains low by Western standards, less than half the US level and even below the level in most of Eastern Europe. 25X1

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*Defense.* Since the mid-1970s the USSR has increased defense spending more slowly than in the previous decade (1966-75). From 1976 to 1982, outlays on military activities grew on average by about 2 percent, and procurement of military equipment was about flat (albeit at a very high level). Our estimates for 1983 are very preliminary, but they suggest some growth in procurement spending in that year. With both the economy and defense spending growing more slowly since the mid-1970s, the share of GNP allocated to defense has stayed at about 13 to 14 percent—about double the 7-percent figure for the United States.

Some key industries, however, must devote a large share of their output to support defense programs. For example, more than 25 percent of all machinery production is allocated to military procurement. In the process, resources are denied to the civilian sector that otherwise could be used to promote economic growth through investment or to bolster consumer morale by improving the standard of living. Obviously, recent improvements in industry do provide the regime with somewhat more leeway to increase growth in defense without reducing growth in consumption and investment.

**Reasons for Improved Performance**

The faster growth in 1983 and so far in 1984 in the nonfarm elements of GNP could represent either a temporary recovery from the slowdown in their growth that began in the latter half of the 1970s or a more lasting break from the long-term trend of deceleration in the rate of increase in nonfarm production. To assess the likely rate of future Soviet economic growth, it is essential to understand why growth outside agriculture accelerated recently. If this acceleration resulted from temporary influences, it does not alter the judgments reached earlier about the fundamental constraints on Soviet economic qrowth through the remainder of the decade and the limits that these constraints impose on Soviet policy choices.[3] On the other hand, if the improvement resulted from changes in policies affecting resource allocations and the productivity of the economy, then our projection of growth must be revised upward and our view of Soviet policy options becomes wider.

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Our analysis suggests that the recent, more rapid growth reflects temporary influences. We do not believe the Soviet leaders have dealt adequately with the long-term constraints holding down economic growth in the Soviet Union—slow growth in labor and capital inputs, rising resource costs, and fundamental shortcomings in the economic system itself. Rather, the upturn has followed temporary changes (for example, a certain amount of luck with the weather) and a greater effort to "fine-tune" the economy through greater discipline, better management, and better planning of additions to industrial capacity to ease or prevent bottlenecks.

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**Weather**

Among the factors that accelerated economic growth recently, weather is perhaps the most obvious. Aside from its effect on agricultural production, extreme cold and heavy snow during the winters of 1979/80 and 1981/82 increased the demand for electric power and disrupted transportation. Transport problems interrupted the delivery of supplies, forcing many plants to wait for the materials they needed.

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The much warmer winters of 1982/83 and 1983/84 substantially helped the production of livestock products. Transportation had fewer weather-related interruptions, and a reduction of the initial demand for rail capacity to support the Afghan operations may also have helped transportation performance. Warmer winters also eased the demand for fuel, and, as more electric power was generated, the rate of use of production capacities climbed.

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Furthermore, the breaking of supply bottlenecks (through better transportation and greater use of existing labor and plant and equipment) had a ripple effect throughout the economy. The earlier imbalances among economic sectors had spread negative effects throughout the economy, and their reduction enabled production to run more smoothly and downtime to decrease.

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**Discipline**

The discipline and anticorruption initiatives begun by Andropov and reaffirmed by Chernenko seem to have spurred both labor and management to greater effort. Spot checks for unauthorized leave and other measures have increased the average number of hours worked per person. In the railroad sector, management changes have improved performance, discipline has been tightened, and new programs—such as requiring enterprises to repair any freight cars that are damaged—are being tried.

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A tougher line with the officials responsible for bringing new plant capacity onstream has also apparently yielded some results. Commissionings increased by a hefty 5 percent each year in 1982 and 1983, up sharply from the rate of the late 1970s, but growth of commissionings in 1984 appears to have slowed. Some of the new plant capacity went to industries producing industrial materials, and this helped to ease supply bottlenecks in the industries that relied on them. Higher growth in new capacity for railroads probably helped their 1983 performance, while increased capacity in the trade and supply sector may have facilitated the distribution of raw materials and contributed to reducing shortages in 1983-84.

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**Increased Investment**

Growth in new plant and equipment was also accelerated by a leadership decision to push investment markedly above plan levels. The 11th Five-Year Plan (1981-85) had called for investment to grow more slowly than the overall economy. That decision—to slow down planned investment growth to the lowest rate in Soviet postwar history—was made on the assumption that economic growth could be stimulated by more efficient use of existing plants and workers.

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Apparently the leadership abandoned that aspect of the 1981-85 Plan from its very outset. Investment has been accelerated to about 4 percent per year in order to provide more balance between the renovation and reconstruction of existing facilities—the cornerstone of the original plan—and the expansion of existing facilities and building of new ones. During 1981-83, for example, reconstruction of "productive" capital stock grew by about 6½ percent a year, while construction of new "productive" facilities grew by approximately 4½ percent a year. If Moscow had speeded up the growth in military procurement during the same period, it would have been difficult for investment to grow at that rate and would have increased the overall demand for the resources most needed for investment—metal products, machinery, and energy.

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**Table 3**
**USSR: Growth of Industrial Output and Factor Productivity**

*Average annual percentage growth*

| | 1971-75 | 1976-78 | 1979-82 | 1983-84 [a] |
|---|---|---|---|---|
| Industrial production | 5.9 | 3.8 | 2.4 | 3.8 |
| Combined inputs [b] | 5.2 | 4.8 | 4.2 | 3.8 |
| Man-hours | 1.5 | 1.5 | 0.8 | 0.6 |
| Capital | 8.7 | 7.9 | 7.4 | 6.9 |
| Overall productivity | 0.7 | −1.0 | −1.8 | 0.0 |
| Man-hour productivity | 4.4 | 2.2 | 1.6 | 3.2 |
| Capital productivity | −2.6 | −3.8 | −4.7 | −2.9 |

[a] Figures for 1984 are preliminary for civilian industry.
[b] Inputs of man-hours and capital are combined (using weights of 48 percent and 52 percent, respectively) in a Cobb-Douglas (linear homogeneous) production function. These weights represent the distribution of labor costs (wages and social insurance deductions) and capital costs (depreciation and a capital charge) in 1970, the base year for all indexes underlying the growth rate calculations.

**Stable Productivity**

The faster growth of GNP as a whole in 1983 and of most sectors outside agriculture in 1984 seems not to have been primarily the result of faster growth in inputs (labor supply or industrial capital) to production. Rather, it seems to reflect improvement in the productivity of the available labor and other resources. After years of steady decline, overall productivity in industry stabilized in 1983-84 (table 3).

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Much of this stabilization echoes the more efficient use of available capital stock and labor force because of factors already mentioned—the breaking of supply

bottlenecks, better weather, and restraint in the growth of military procurement. The discipline campaign helped, not only by increasing the number of hours worked but also perhaps by fostering a stronger sense of purpose among both workers and managers. In any case, the official crackdown on corruption and inefficiency resulted in firings for incompetence and even execution for "illegal speculation." This may have led to better management.

## Economic Outlook

### Short Term

In our judgment, annual growth of Soviet GNP could continue at about 3 percent for another year or two, provided that short-term swings in agricultural output are moderate. If a given year were favorable for agriculture, GNP growth could even rise above 3 percent, but it probably would not actually reach 4 percent per year. A number of favorable conditions would have to coincide for growth to reach even 3 percent, however, and the rate probably could not be sustained.

Until we have more information to confirm any change in the recent Soviet growth trend outside agriculture, we assume that in 1985 industry and other key sectors will continue their improved growth performance of the last two years, and that agriculture will post some moderate gains. We expect the most promising sources of sustained near-term growth to be the same influences that contributed to the apparent stabilization of productivity in 1983 and 1984:

- Relief of supply bottlenecks.
- More effective use of labor.
- Continued healthy increases in new capacity—especially as needed to ease or prevent bottlenecks.

Nevertheless, even the short run has a number of uncertainties. Whether the labor discipline campaign has run its course is a major unknown, although so far Chernenko apparently has been able to sustain the momentum created by Andropov. Managers will have to continue eliminating old bottlenecks, avoiding new ones, and raising the rate of use of their capital. This is necessary, but difficult: the railroads, for instance, are currently operating at near capacity, and serious transport tieups could occur at any time.

### Longer Term

Even if it continues another year or two, the stronger showing in much of the economy in 1983 and 1984 would not foreshadow, for the longer term, an average growth rate substantially higher than we have previously projected—1 to 2 percent a year. The recent growth record has led us to increase by approximately half a percentage point our projection of average growth through the remainder of the decade (we now estimate it at 1½ to 2½ percent a year). Such an increase is too slight to significantly lessen competition between civilian and military claims on resources or to expand the leaders' policy options.

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Our revised projection is still lower than the 2½- to 3-percent average annual growth that we projected for the first half of the decade. The special factors that affected 1983-84 will be hard to depend on or to sustain in the future. Moreover, the gains from partial relief of some bottlenecks in areas like transportation and industrial materials will have to expand as the more fundamental factors that have constrained growth since the late 1970s continue to tighten.

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We expect the energy constraint to be less severe than was implied in our earlier projections, however.[4] This is due partly to our current assumption that in the long run the planners will shift some of the available energy from exports to the domestic economy and partly to the Soviet success in the last few years in slowing the growth in overall domestic energy consumption. Nevertheless, energy remains a likely drag on growth by the end of the decade, especially as oil and coal supplies tighten. The constraint will be worse than we expect if progress in conservation is not adequate or if gains in substitution of gas for other fuels slow down.

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In looking at longer term growth prospects, Soviet planners recognize that past demographic trends will limit additions to the labor force. Therefore, they are seeking ways to boost growth of capital inputs and to raise productivity in general, but without stretching investment resources too thin. As plans for 1986-90 begin to take shape, Soviet economists are proposing

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at least two distinct growth strategies, which we can loosely term "consumption oriented" and "investment oriented." Both address the key issue of productivity, but their approaches to raising productivity differ:

- The consumption-oriented strategy would attempt to increase growth of labor productivity by supplying more and better consumer goods as incentives.
- The investment-oriented strategy would attempt to raise labor productivity by producing more and better new machinery. This strategy would require substantial increases in investment.

It is difficult to foresee what the Soviet leaders will do (as yet they have released little official information about their plans for 1986-90), but they have already adopted two costly programs that will continue into the next plan period. Investments for the Food Program are expected to cost as much as 265 billion rubles, and for the long-term Energy Program, about 170 billion rubles. These two alone commit the leaders to maintaining a relatively high rate of investment growth. In addition, a Soviet planner has stated informally that investment will continue to grow at about the current rate of 4 percent per year in the next plan period. Anything less than 4 percent—assuming continued investment in the food and energy programs—would leave little room for growth of investment in areas needed to support future economic expansion—machine building and transportation.

Even if the recent improvement in growth were linked to factors operating over the longer term, the average annual rate of increase over the remainder of the decade is not likely to exceed 1½ to 2½ percent. Only a fundamental improvement in productivity appears to offer the potential for moving longer term growth in the 1980s above 3 percent. Unless the Soviets develop growth strategies [5] that lead to a sustained return to the productivity trends of the 1960s or early 1970s, growth will flatten or decline again, as it did in the late 1970s. Such improvement is unlikely because of systemic problems and the low probability that these problems will be remedied or eased. 25X1

Several fundamental and as yet unchanged factors limit Soviet longer term growth prospects:

- Additions to the working-age population will be lower in the next several years than at any time since the early 1960s, and the full impact of these changes will not be felt until the late 1980s. 25X1
- Growth of capital stock will probably hold steady at recent rates, despite some improvement in investment growth.
- The costs of industrial and agricultural raw materials —especially energy—almost surely will continue to rise. Even though the Soviet Union has great raw material reserves, the cost of exploiting them has risen sharply with the depletion of the most readily available sources. Opening new sources requires that more money be spent to provide transportation links and worker amenities. Moreover, if the quality of reserves is low, money also must be spent on equipment for enriching the ore or other raw material being produced. 25X1

Economic growth will also be held back by the USSR's highly centralized system of planning and management. The greatest potential for economic gain over the longer term continues to lie in economic reform. However, nothing in Chernenko's background or past pronouncements indicates an inclination toward reforms involving systemic change. The inflexibility of the Soviet system has contributed to its technological backwardness, and the gap between the USSR and the developed West continues to grow in those technologies that are not directly related to weapon systems. The Soviets have been particularly unsuccessful in stimulating the advance in the technologies that underlie the resurgence of Western productivity growth—microelectronics, computers, robotics, and advanced materials. They concentrate on copying Western developments, a time-consuming process that impedes rapid development. 25X1

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[5] Changes in growth strategies that might sustain growth at its recent rate include higher growth in investment in the machinery sector, faster retirement of obsolete capital, successful conservation of energy and basic materials, and stable or even reduced military procurement. The leadership also could try to force greater efficiency by limiting supplies of inputs, increasing output plans, and using both administrative incentives and penalties to force management and labor to greater or more effective effort.

The most important of the economic innovations carried over from Andropov is the economic experiment introduced on a limited basis in January 1984. It seeks to spur productivity by giving enterprise managers more latitude in using investment and wage funds and to promote efficiency by stressing contract fulfillment as the main indicator of performance success. It has had some limited success, but analysis suggests that the experiment itself is too limited at this time to have much potential for improving industrial performance. Its reported success so far probably has resulted more from the priority given to the needs of participating enterprises than to the new operating procedures themselves.

**Implications for Leadership Policy Options**

In the future, Moscow's ability to satisfy both the military and the nonmilitary claimants for resources will be limited by slow economic growth. This prospect (even the slow projected trend rate of 2-percent growth per year) does not suggest that the Soviet economy is in desperate straits. It does indicate that the leaders will have to make choices among their ambitious goals—or make them all somewhat less ambitious. The lower the rate of overall growth in the economy, the harder the choices become. At the growth rates we project, the USSR cannot simultaneously:

- Increase consumption substantially in order to stimulate labor productivity.
- Modernize the economy rapidly to incorporate more efficient plant and advanced technology.
- Make across-the-board increases in defense programs in response to a US military buildup.

At 2- or 3-percent growth per year, there will have to be trade-offs. A major commitment could be made in one of these areas, but that would probably require little or no gain in one or both of the others. If, instead, efforts in defense, investment, and consumption are all allowed some growth, none is likely to grow enough to meet the full range of challenges faced. The decisions will be tough to make and the results probably not satisfying to any particular segment.

Future linkages in growth between defense spending, per capita consumption, and investment depend on future trends in productivity and the future availability of key resources like fuels. Obviously, the more success the Soviet leaders have in keeping up productivity and resource supplies, the more flexibility they will have in choosing among competing goals. If, as we think likely, they were to choose to maintain the respectable recent growth in investment (about 4 percent a year), and if overall growth reached the high end (about 3 percent) of the range we think is possible, the leaders could continue to increase defense spending at recent rates and still have something left over for modest improvements in living standards.

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Figure 6 illustrates these variables. If Moscow shifted the rate of defense growth up toward the rate of the 1960s and early 1970s (4 to 5 percent) while maintaining investment growth at its present level, any faltering in overall economic growth would cause living standards to stagnate or even decline. Such a failure of living standards to improve (from a level that is already low compared with those in other developed countries and much of Eastern Europe) would be a cause of concern for political leaders, at least as it would be likely to affect workers' morale—and therefore their work effort.

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Given our outlook for Soviet economic growth in 1986-90, we expect the competition between defense and civilian uses of output to be particularly acute in the machinery sector. If growth fell toward the low end of the range we expect, machinery output could not grow fast enough to maintain 4-percent-per-year growth in investment, plus increased growth in defense spending, plus continued delivery of consumer durables at current levels. Production of consumer durables would have to decline, as machinery output would be increasingly directed to investment and defense; or investment would have to be increased by imports.

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The leaders could choose to slow their industrial modernization drive, although we think this is less likely. By cutting investment growth to 2 percent (half of the recent investment growth rate), they could make room to increase growth in consumption or

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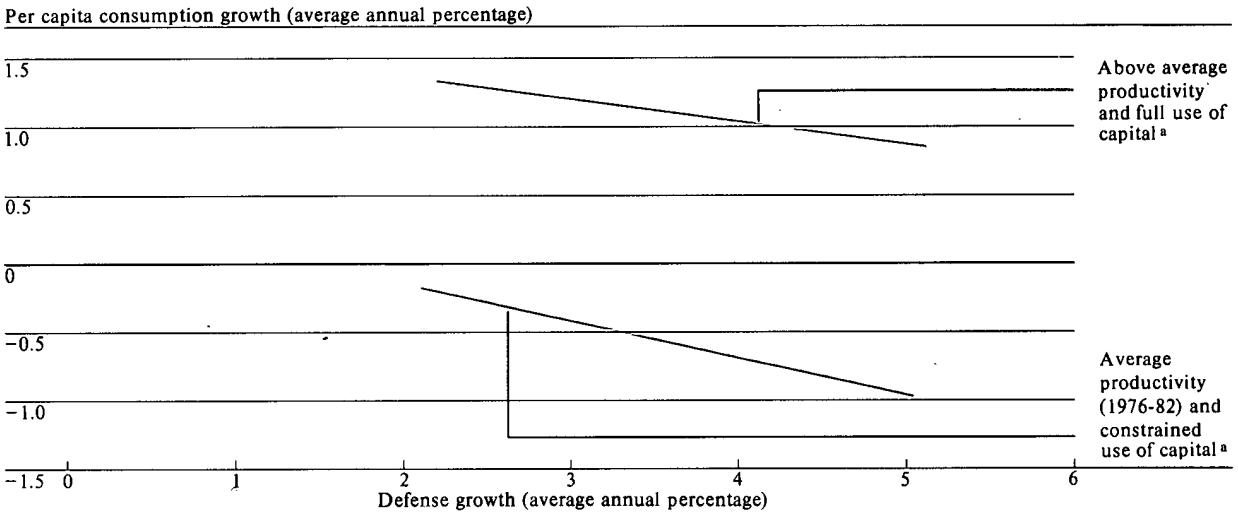
**Figure 6**
**USSR: Linkages Between Defense Spending and Per Capita Consumption in Terms of Future Growth, 1986-90**




a The use of capital is assumed to vary primarily on the basis of energy consumption. Full use assumes that growth of energy is at the high end of the range we consider likely and that the Soviets make substantial gains in interfuel substitution and energy efficiency; constrained use assumes smaller gains in these areas. Investment is assumed to grow at 4 percent per year in all cases.

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defense modestly; but they would require generally good luck or very effective policies to maintain overall economic growth at close to 3 percent a year. And the pursuit of this option would seriously threaten the prospects for GNP growth in the 1990s by limiting the introduction of new plant and equipment during the rest of the 1980s.

Overall, the leadership will probably try to continue recent policies, with:

- A fairly high commitment to investment in economic modernization.
- Defense growth at about the rate of GNP growth.
- Improvement in living standards, but at a rate slower than the rate of growth for the economy as a whole.

The pressure to raise defense spending substantially is certainly strong, as acknowledged in Chernenko's November 1984 speech and as hinted at in the announced 1985 defense budget. But a decision to actually increase the rate of growth for defense will constrain investment and, therefore, the prospects for growth and future consumption.

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