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95

Economic Intelligence Report

PROSPECTS FOR CONSTRUCTION OF HOUSING
IN THE USSR
1961-65



CIA/RR ER 61-27

June 1961

CENTRAL INTELLIGENCE AGENCY

Office of Research and Reports

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PROSPECTS FOR CONSTRUCTION OF HOUSING IN THE USSR*
1961-65

Summary and Conclusions

The USSR has pledged to eliminate its persistent shortage of urban housing some time between the end of 1967 and the end of 1969. It is estimated that this long-term program will be fulfilled by the end of 1969 if the Soviet government elects to expand substantially the planned volume of construction of housing during 1961-65 by supplementing the funds for planned construction and then continues this high rate of growth through 1969. Expansion to obtain the required amount of housing probably can be achieved without jeopardizing other major goals for construction during 1961-65. The exceeding of the general construction goal of the Seven Year Plan (1959-65) is expected to provide the flexibility for this option.

The long-term program of the Khrushchev regime is the most binding commitment on housing that any Soviet leader has ever made.** The housing program, a keystone in Khrushchev's over-all program for the consumer, was formulated between December 1956 and mid-1957 by planners acting under urgent instructions to seek ways to increase the volume of construction of housing. The first phase of the program, 1957 through 1960, was completed successfully as state housing, assigned a high construction priority, exceeded its target and as private builders nearly fulfilled a substantially increased quota for private housing. The high priority for state housing caused excessively high unit costs during this period and probably was indirectly responsible for lags in other construction, including some projects for heavy industry. The success of the 4-year program was minimized, however, by the failure to fulfill the 1960 plan. State housing was only slightly

* The estimates and conclusions in this report represent the best judgment of this Office as of 15 May 1961.

** Soviet leaders apparently will consider their housing pledge fulfilled when the average housing per capita reaches 9 square meters (97 square feet) of living space, the minimum sanitary norm. Alternatively the pledge may be considered fulfilled when each household has a separate dwelling unit. This objective could be reached somewhat earlier because the government will be partly successful in its attempts to minimize the size of the average apartment so that each person will be allocated only 7 square meters (75 square feet) of living space.

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below the 1960 target, but its growth dipped far below the rate of preceding years. Private housing, affected by termination of state loans during the second half of 1960, was underfulfilled by one-third.

The prospect for 1961-65 is that the planned volume of state and private housing will be exceeded by about 25 percent, based on an analysis of housing needs, capabilities for construction, and recent government policies. Because the planned annual volume of construction of housing is to be held at the 1961 level and because increases in urban population and the razing of large amounts of existing housing will offset much of the gain from new construction, the planned 5-year improvement in housing would not be adequate to keep the long-term housing program on schedule. During this period the government, however, will have the construction capacity to expand state housing substantially, inasmuch as the requirements for the housing plan are modest relative to the rapid growth foreseen for the Soviet construction industry. Faced with urgent needs for housing in the past, post-Stalin regimes have insured the fulfillment of their housing goals while countenancing lags in industrial construction.

Although clearly feasible, acceleration of construction of housing nevertheless would again produce old problems stemming from the government's paradoxical objective of building more and better quality housing more quickly and more cheaply. Difficulties in the supply of materials and skilled labor will continue, improvement in the quality and convenience of apartments will be difficult to effect, and unit costs will be higher than planned. Each of these phenomena will add to the planned cost of the program.

A noteworthy feature of construction during 1961-65 is the projected transition to the "large-panel" method of construction of housing,* a change that will introduce new problems. Although by early 1961 this method had not yet passed all tests of engineering and economic feasibility, it is to account for almost two-thirds of construction of state housing during 1965. Lags in the modest plans for large-panel construction through 1960 have been caused by delays in developing standard types of panels and in the delivery and installation of equipment at factories for their production, delays that probably will persist. It is expected, however, that the deficiencies in large-panel construction will be offset by the adequate supplies of brick, currently the predominant wall material for state housing.

Problems in private housing will continue to revolve around the conflict between governmental aversion to private construction and

* This method involves the use of factory-produced story-height concrete panels in exterior and transverse walls. (See III, D, p. 10, below.)

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the strong popular demand for individual houses. The government's act to halt loans to private builders in the fall of 1960 was a resumption of former policies to hold down the volume of private construction. The inability of the government to sustain its former policies and the absence of any reference to the duration of the recent ban on loans suggest that the question of reinstating governmental support is still open. The eagerness of private builders and the annual increases in the availability of the needed materials, coupled with pressures created by a continuing housing shortage, probably will force the government to permit private construction to fill out that part of the housing program which state construction will be unable to carry out.

The longer term prospect for housing is that new problems may emerge at the very time that the government claims to have eliminated the housing shortage on the basis of current criteria. By that time, ironically, Soviet citizens may well be more vocal in their dissatisfaction with housing conditions than they are at present. The small apartment units, the drab architecture, the high concentration of population in the apartment developments, and the poor quality of construction are now considered unattractive but economically necessary. These conditions may be considered unacceptable by the new generation. Mikoyan probably was right when he observed that as new housing becomes increasingly available, more demand for housing is stimulated than is satisfied.

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I. Introduction

The major objective in studying Soviet housing is to determine the prospects for the solution to the long-standing shortage of urban housing* in the USSR. The focus of this report is on the problems and prospects for new housing during 1961-65, and primary consideration is therefore given to economic and technical aspects of such construction. In order to evaluate these aspects better, however, account also is taken of political influences, as reflected by the fluctuations in Soviet governmental policies toward housing during the past decade.

A. Review of Policies on Construction of Housing, 1953-601. Policies of Stalin and Malenkov

The policy of a low priority for housing during Stalin's tenure gave way under Malenkov to a clear, public recognition of the severe housing shortage and an effort to reduce the shortage by sharply increasing allocations for construction of housing. In spite of the achievement of modest increases in new housing during his tenure, Malenkov was made the unnamed target of Khrushchev's speech at the Builders' Conference in December 1954. In that speech, Khrushchev thundered that construction -- and construction of housing in particular -- was being poorly managed.

2. Khrushchev's Initial Policy

Khrushchev's views on how to deal with the housing program differed significantly from the measures taken under Malenkov.

* This report deals only with construction of urban housing, the two broad categories of which are state and private housing. About 90 percent of state housing is paid for out of budgeted funds and is built by state contract construction organizations in accordance with the state plan; the balance of state housing is paid for out of funds belonging to factories and enterprises and is built by construction forces subordinate to those organizations. Private housing generally is built by future owners, about half of whom receive state loans for the purchase of materials and the other half of whom use their own savings.

Rural housing is viewed as a separate and subordinate problem by the Soviet planners. Announcements of goals and plans for housing in the USSR either exclude rural housing or give only bare details. During the Seven Year Plan (1959-65), 7 million rural houses are to be built, nearly one-third of the total number of new dwellings planned during 1959-65. Rural housing is built privately and requires a minimum of state-allocated resources.

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Instead of assigning more resources for more housing to be built according to conventional design, Khrushchev recommended that methods for construction of housing be revised radically. He asserted that "industrialized construction" was the answer to the problem of sharply increasing the volume of housing with a reasonable increase in the expenditure of manpower and scarce materials. This method relies on extensive use of large factory-produced structural components and suitable erection equipment for the mass construction of housing according to standardized designs.*

Believing that industrialized construction would quickly produce more housing more cheaply, Soviet planners in drawing up the original Sixth Five Year Plan (1956-60) programed the construction of virtually twice the volume of housing completed during the preceding 5 years but increased allocations of funds for construction of housing by only about 50 percent. Poor results in 1956 indicated that the calculations underlying the planned program were erroneous and that difficulties would mount in meeting goals for the volume of housing without substantial supplements to planned construction funds.

3. Decision of 1956-57

Dissatisfaction with the progress of construction of housing in 1956 was openly and widely expressed in the Soviet press. Toward the end of the year, broad hints appeared in Pravda and outright statements in Izvestiya that goals for construction of housing in 1957 and later years would be raised sharply. A pledge to seek out ways to increase housing was one of the main features of the report on the Plenum of the Party's Central Committee that met in December 1956. In August 1957 the Soviet government proclaimed its general objective of the elimination of the housing shortage within 10 to 12 years, as well as detailed plans for construction of housing in 1957-60, the first phase of this program. The key provisions of the plan for 1957-60 were (a) a substantial increase in funds for a virtually unchanged volume of construction of state housing and (b) a one-third increase in the expected volume of private housing. The policy adopted under Khrushchev's administration was, in major respects, an extension of the Malenkov policy.

B. Accomplishments During 1957-60

The planned volume of housing in the first phase of the new program was achieved, with state housing exceeding the plan by 6 percent and private housing falling short by 11 percent. In 1957 and 1958 the annual plans were substantially exceeded, as state housing

* See III, D, p. 10, below.

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received a high priority and private builders were strongly supported and encouraged by the government. In 1959 the plan for state housing was slightly exceeded and in 1960 was slightly underfulfilled, whereas private housing was somewhat below plan in 1959 and one-third less than planned in 1960. These recent shortfalls in private housing probably reflect the gradual cooling of the government's attitude toward private construction after 1958, culminating in the announced termination of loans for private builders in the fall of 1960.

Going into the second phase of the housing program, 1961 to 1965, the Soviet government is guided by the goals of the Seven Year Plan. It is the purpose of this report to examine how these goals fit in with the long-term goal, the problems that might arise in construction of housing, and the prospects for new housing during 1961-65.

II. Goals for Urban Housing

The long-term goal of the USSR is to eliminate the shortage of urban housing some time between 1967 and 1969, but Soviet authorities have not specified as yet what is meant by the elimination of the housing shortage. At the maximum this goal would require attainment of a level of housing at which urban residents will have an average of 9 square meters (sq m) of living space.* This space concept is the standard sanitary norm for housing described in Soviet publications.**

Although the Seven Year Plan calls for an impressive volume of construction of urban housing, the plan seems to fall far short of providing a rate of construction consistent with the needs of the above-identified long-term goal. To meet the plan, it is estimated that about 20 percent more housing would have to be built during 1959-65 than is called for in the Seven Year Plan. Otherwise the average of 9 sq m would not be attained until well beyond 1970, unless a staggering housing program were to be undertaken during 1966-69.

* Living space includes only living rooms and bedrooms. Living space plus all other interior apartment space -- kitchen, bathroom, closets, and hallways -- comprise total space. One square meter equals 10.8 square feet.

** Alternatively the housing shortage might be considered as eliminated when each family in the USSR has its own separate quarters. Such a goal could be achieved more easily than that of providing an average of 9 sq m of living space per resident. The new one-family dwelling units are designed with an average of about 7 sq m of living space per person, but the actual average probably will be somewhat higher, although not so high as 9 sq m.

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A. Housing Goals of the Seven Year Plan (1959-65)

The Seven Year Plan (1959-65) calls for construction of 15 million urban dwelling units with a total floorspace of 650 million to 660 million sq m. 1/* Of these amounts, 10 million apartments with a total floorspace of 424 million sq m are to be built by state organizations, 2/ and the balance of 5 million houses with a total space of about 230 million sq m is expected to be built by private individuals. Expenditures under the state plan are to amount to 323 billion rubles. ** 3/

B. Improvement in Housing, 1959-65

The planned amount of new housing is to increase the stock of urban housing by 60 percent during 1959-65. 4/ In terms of total space this construction would yield a gain from about 780 million sq m at the end of 1958 to about 1,250 million sq m at the end of 1965.*** When converted from total space to living space and related to the estimated urban population in both years, these amounts of housing provide for an average per capita living space of 5.1 sq m at the end of 1958 and 6.6 sq m at the end of 1965.†

Urban housing per capita, according to these estimates, will increase by 29 percent during 1959-65, an average annual growth of 3.7 percent. The use of this rate of growth to extrapolate the 6.6 sq m of urban living space at the end of 1965 indicates the virtual impossibility of attaining an average of 9 sq m by the end of 1969. Thus

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** Ruble values throughout this report are in constant 1955 rubles (pre-1961 exchange rate). The ruble-dollar ratio for construction of housing in 1955 was approximately 7 to 1.

*** These data imply a very high rate of withdrawal from the existing stock of housing. [redacted] the effect on housing conditions of the need to raze large amounts of housing during 1961-65. 50X1

† These figures on urban living space in the USSR may be compared with the following estimates for other countries:

<u>Country</u>	<u>Year</u>	<u>Square Meters</u>
US	1960	28
UK	1956	20 to 22.5
West Germany	1956	15
Czechoslovakia	1956	11

Because these estimates are based on incomplete data expressed in varying units of measure, any comparison based on these figures is necessarily a broad one.

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it seems valid to conclude that the rate of increase in the level of urban housing implicit in the Seven Year Plan is not consonant with the rate required for the attainment of the maximum long-term goal.

An adequate rate of improvement of housing would be difficult to establish with precision because of the broad assumptions underlying the above methodology. The magnitude by which the present plan for construction of housing falls short of the needs for the long-term goal, however, can be estimated broadly. By increasing construction of new urban housing to a volume 20 percent higher than called for under the Seven Year Plan and continuing that higher rate of increase through 1970, 9 sq m of living space per capita would be attained by 1970.

III. Program for Construction of Housing

The program for construction of housing planned for 1961-65 differs from earlier housing programs in four important respects: the rate of growth, the scheduling, the role of private construction, and the methods of construction. In one respect -- the poorly planned allocations of funds -- the program is similar to its predecessors. These features of the program, as shown in the chart, Figure 1,* and as outlined below, will be evaluated in the subsequent discussion of problems and opportunities and the prospects for the housing program.

A. Rates of Growth

The most noteworthy feature of the housing program for 1961-65 is that the 5-year cumulative rate of growth is to be less than one-half of the rate of growth achieved in the preceding 5 years. The rate of growth in construction of state housing is to drop even more abruptly, to 37 percent of the rate achieved during 1956-60, while the rate for private housing is to drop to 45 percent. The percentage increase in construction of urban housing in one 5-year period compared with that in the preceding 5-year period is shown in the following tabulation:

<u>Period</u>	<u>Percentage Increase</u>		
	<u>Total</u>	<u>State</u>	<u>Private</u>
1951-55 - 1956-60	117	101	164
1956-60 - 1961-65	57	37	74

* Following p. 10.

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B. Scheduling

As the current housing program is scheduled, the trend is for construction to level off and form a plateau, thus differing radically from the sharp upward trend between 1956 and 1961, as shown in the chart, Figure 1.* This difference is illustrated by the fact that in 1961 the volume of construction is planned to be 96.2 million sq m of total floorspace, 5/ virtually the same as the annual average of 97.8 million sq m planned during 1961-65. During 1956-60, on the other hand, the average annual volume of construction amounted to 61 percent more housing than was built in the first year of that period.

C. Role of Private Construction

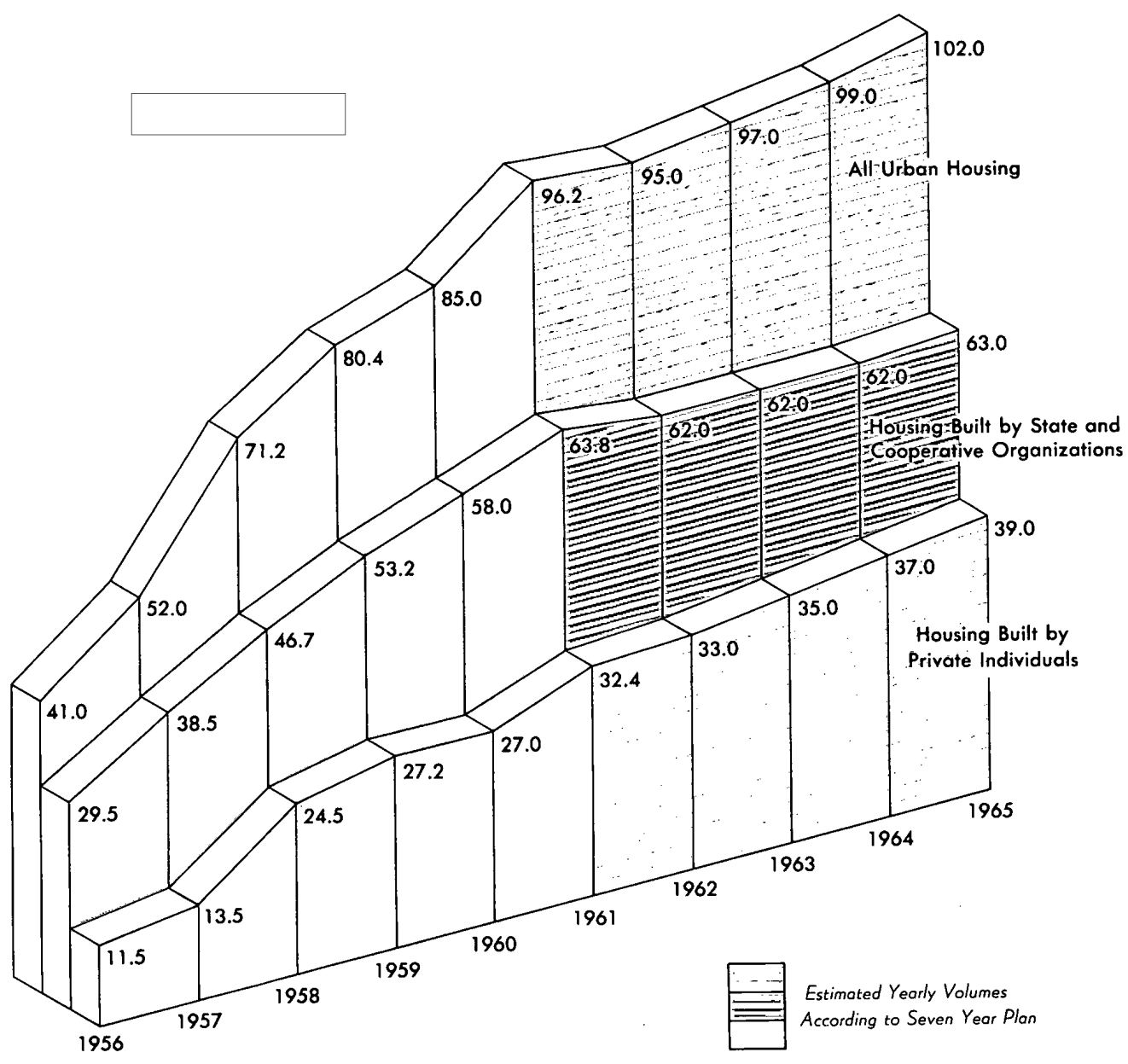
The importance of private construction in the housing program is much greater than Soviet officials would like to admit, and according to the current plan the role of private housing is to increase. During 1961-65, private builders are to account for 36 percent of new urban housing space. During 1956-60, private individuals completed 31 percent of the new urban housing built, but during 1951-55 the share of private builders had been only 26 percent.

D. New Methods of Construction

A key feature of the program for state housing during 1961-65 is the planned shift in construction to the large-panel method and away from brick construction. In the new method, exterior and transverse walls of apartment houses are erected from story-height panels of precast reinforced concrete 0.2 to 0.3 meter thick, as shown in the photographs in Figure 2.* This material is to take the place of brick, which has been used in walls averaging more than 0.6 meter thick.

The extent of the planned shift to the large-panel method is shown by the fact that 63 percent of state housing in 1965 is to be built by the new method, compared with less than 3 percent in 1960, and by the 50-fold increase envisioned for large-panel construction between 1959 and 1964. 6/ Brick construction, on the other hand, is to decline to 10 percent of new state housing in 1965 compared with a planned share of 55 percent in 1960, as shown in the chart, Figure 3.*

* Following p. 10.



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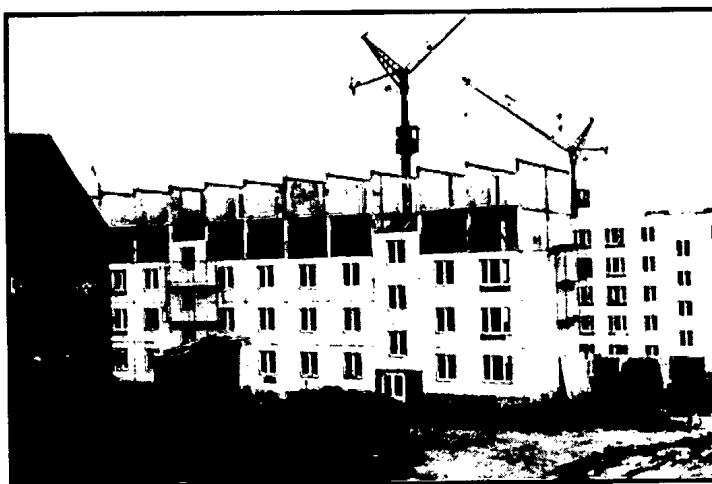
Figure 1. USSR: Actual and Estimated Volumes of Construction of State and Private Housing, 1956-65



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Field-weld joining external and transverse panels.



Large-scale experimental construction in Moscow.



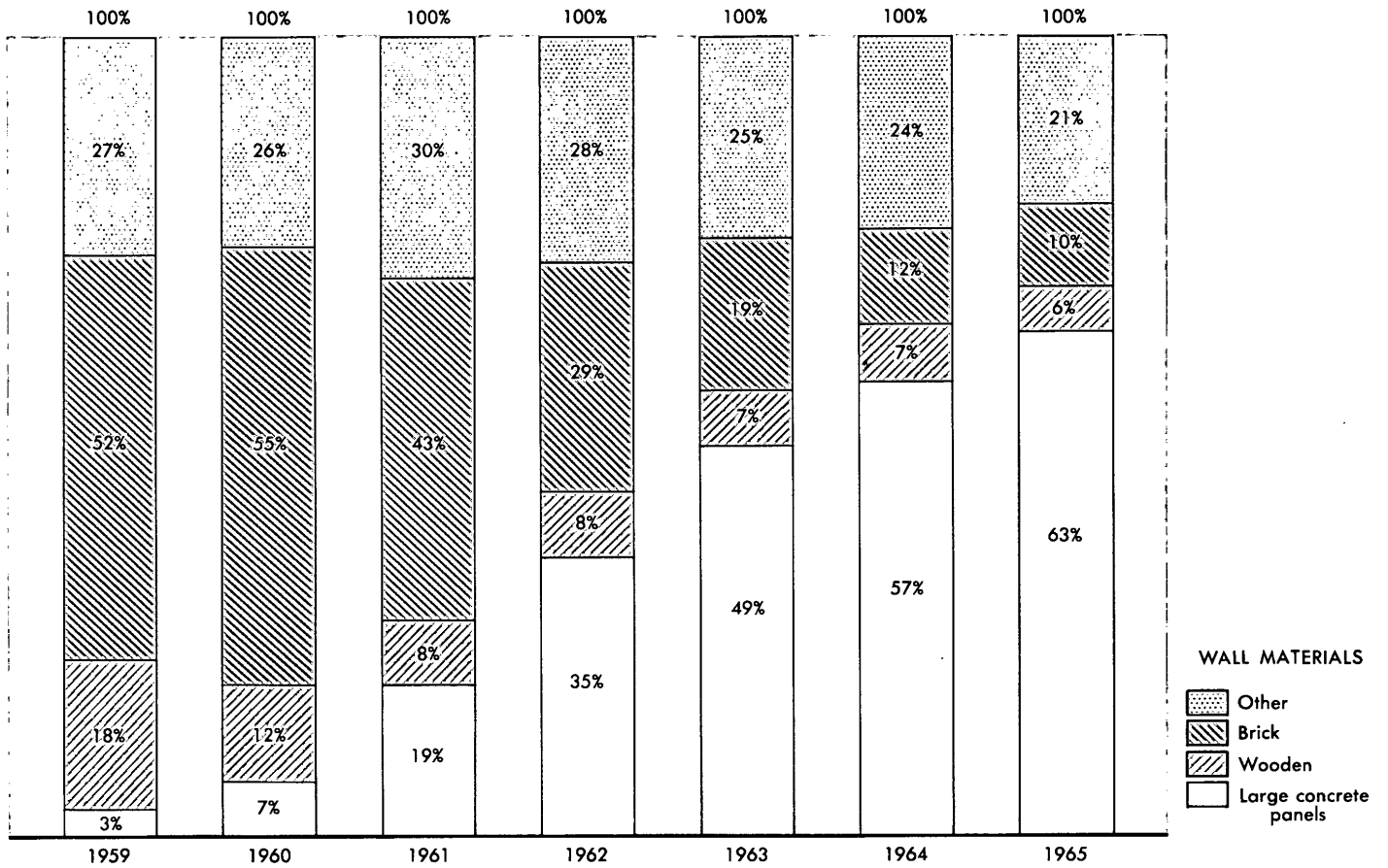
Units completed in 1960 in Moscow.

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Figure 2. USSR: Construction of Housing by the Large-Panel Method



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Figure 3. USSR: Planned Shift in the Method of Construction of State Housing, 1959-65

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IV. Problems and Opportunities in Construction of State Housing*

The realism of the current Soviet housing program depends both on the conditions governing construction in general and on the specific problems affecting construction of housing. Within this framework a problem is considered to be any factor which has a bearing on the amount of housing that can be built during 1961-65.

A. Problems in Construction of State Housing

Most former problems in construction of state housing have stemmed from the Soviet leaders' paradoxical dictum that more housing be built more quickly, more cheaply, and more durably. All evidence points to the Soviet planners' adherence to that decision in setting forth the state housing plan for 1961-65.

1. Major Problemsa. Changes in Methods of Construction

By programing the rapid and far-reaching transition to large-panel housing (see the chart, Figure 3**), Soviet planners have placed a heavy reliance on a construction method that Soviet engineers have not yet developed to the point where it is technically sound for economic mass-scale construction. If the method falls far short of yielding either the expected high volume of construction or the reductions in cost and time required for construction, important revisions would have to be made in the housing program. Difficulties in making the changeover to large-panel construction were experienced in 1959 and 1960 and are expected to continue.

The basic reason for the early lags in large-panel construction has been the slowness to develop and standardize suitable products and erection techniques. As late as mid-1960, competing research and development organizations were attempting to gain acceptance of their package proposals for the design of panels and manufacturing equipment. At that time, some of these proposals still required substantial engineering study. Several designs of apartment houses calling for specific types of panels were accepted in 1960, and one type (see the diagram, Figure 4***) was recommended late in 1960 for wide adoption. 7/ There is no indication, however, that a

* Because construction of housing by state contractors and private individuals differs widely in many important respects, each form of construction will be discussed separately.

** Following p. 10, above.

*** Following p. 12.

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decision has been reached to settle on two or three basic methods so that the manufacture and erection of large panels can be put on a mass-production basis.

Factories to produce large panels have not been built on schedule, and further difficulties in boosting production are expected. In 1959 and 1960, less than one-half of the planned capacity was completed. Moreover, [redacted] some of the equipment delivered to the new factories is of poor quality and that the capacity of completed factories has been overstated. A major obstacle to the completion of the new factories has been uncertainty about their equipment requirements. Another obstacle has been the reportedly complete lack of coordination of the 60 plants collectively engaged in the mass production of equipment for the new factories that will produce the large panels (for photographs of these plants, see Figure 5*). 8/

50X1

In the light of these difficulties, it is not surprising that construction of housing by the large-panel method has fallen short of expectations. In 1960, only 1.5 million sq m of large-panel housing was built, out of a planned total of more than 4 million sq m. 9/ Construction by the large-panel method has been of poorer quality and has cost more than was expected. 10/

The problems carried into 1961 appear to be so severe that they probably will continue to limit large-panel construction for at least a year. If vigorous corrective measures are not undertaken soon, the longer term schedule for large-panel housing may be jeopardized. It is possible that only as little as one-half of the programmed large-panel construction will be completed during 1961-65.

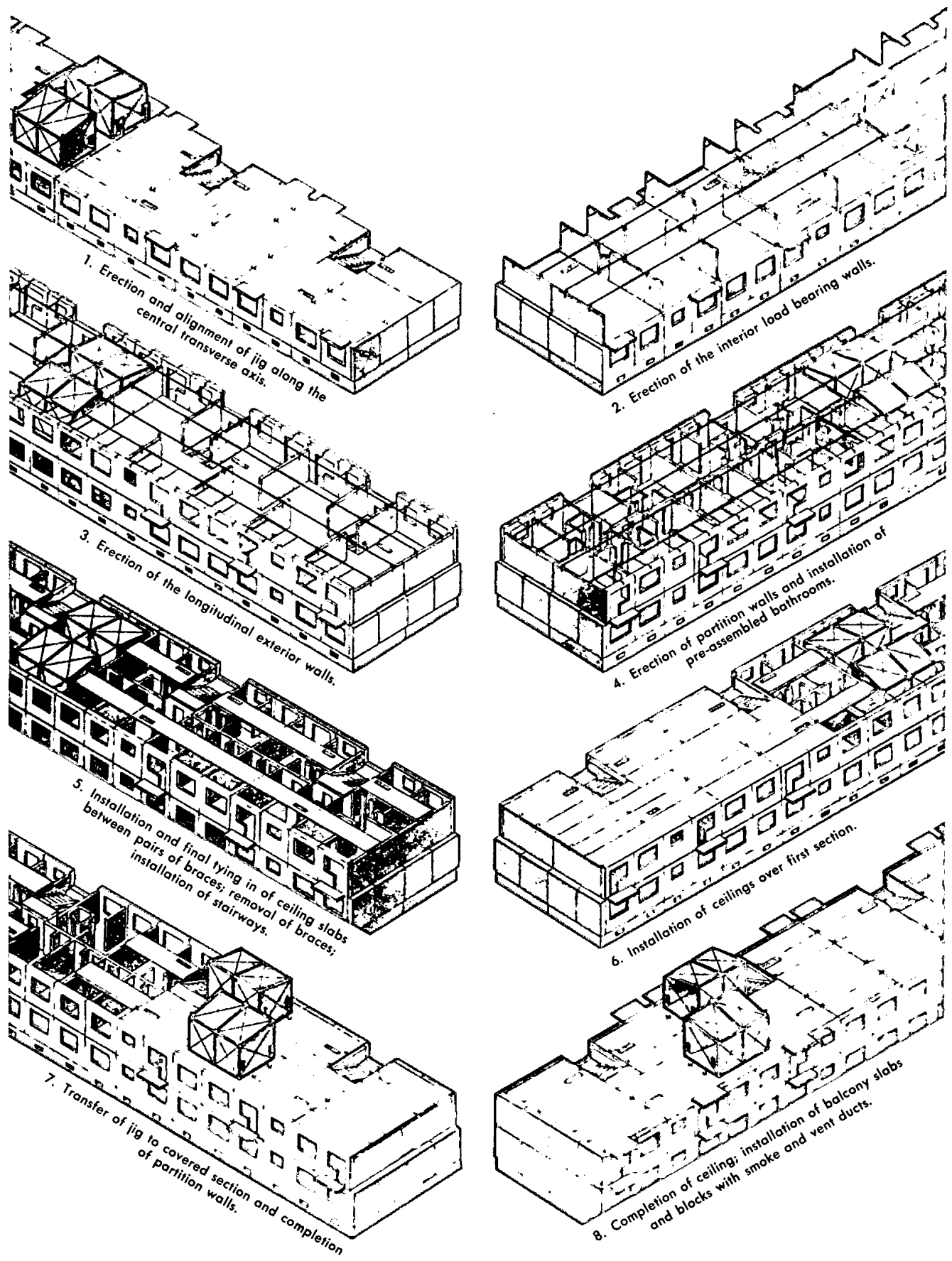
b. Quality of Construction

Needed improvements in the quality of new Soviet housing are expected to retard construction, raise labor requirements, and increase construction costs. In four respects -- basic structure, finishing work, equipment, and design -- [redacted] their housing is of inadequate quality.

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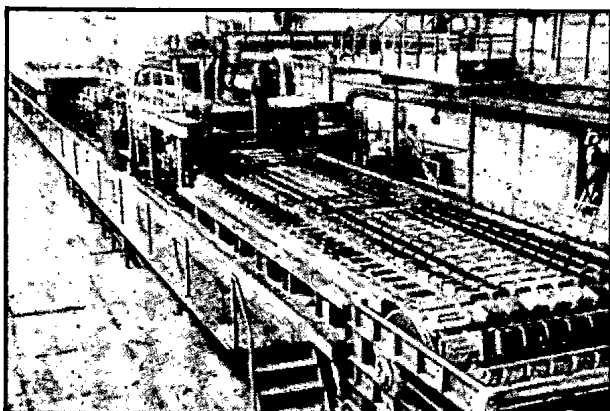
Improvements in the basic structure of Soviet apartment houses can be made rapidly but will require greater care in erection and, therefore, more time and labor per unit of construction. Brick exterior walls, for example, generally are laid with poorly pointed mortar joints that deteriorate from exposure to freeze and thaw. This deterioration results in higher expenditures to face the

* Following p. 12.



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Figure 4. USSR: Steps in One Method of Assembly of Large-Panel Apartment Houses



Experimental production of waffle slabs in horizontal molds mounted on a conveyor system.



Extraction of a panel from upright molds at a Moscow plant.



Production of panels by the use of upright molds.

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Figure 5. USSR: Plants for Production of Large Reinforced Concrete Panels for Construction of Housing

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exterior wall with tiling or in higher maintenance costs if the brick is left exposed. Similarly, greater care is needed in producing panels for large-panel construction with a smoother surface and fewer cracks. Moreover, the erection crews will have to strengthen the welds tying the panels together and improve the caulking of the joints.

The long-criticized finishing work -- flooring, mill-work, glazing, painting, tiling -- has continued to be poor not only because of low-grade materials and a shortage of skilled workers but also because of inadequate allocations of funds and pressures on local officials to turn housing over for occupancy before the completion of construction. In order to improve the quality of new housing as intended, the state's contractors will have to expend substantially more labor and time on the finishing of apartments.

Substantial increases in equipment and refinements are programmed for Soviet housing in 1961-65. More kitchen and bathroom equipment and piping and duct work will be required for the single-family apartments, and the trend toward a higher proportion of masonry construction with plumbing and central heating facilities will combine to generate upward pressure on construction costs.

New apartment houses and apartment units have been designed for maximum economy, so that any changes in designs would tend to slow construction and raise costs. The apartment houses are drab, completely functional structures, and the units have been designed extremely small in order to accommodate the maximum number of families.* Architects and citizens have already raised complaints about the new housing, and pressures may mount for more attractive structures and more spacious apartments. 11/

c. Supply of Construction Resources During 1961-65

Problems in the supply of building materials and labor will be difficult during the early part of the period but will ease greatly during the later stages. This trend is accounted for by the fact that more state housing is planned for 1961 than the average annual volume planned for 1961-65 and that construction resources will be increasing from year to year. The gradual easing of the supply situation by 1965 is shown in Table 1.**

* The one-family apartment is a distinct improvement over the old-style communal apartment that houses three or four families each in a separate room and provides a common kitchen and bathroom. The very small size of the new units, however, is an irritant which is aggravated by the fact that the typically massive furniture preempts an inordinate share of available living space.

** Table 1 follows on p. 14.

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Table 1

USSR: Estimated Share of Construction Resources
Required for Planned State Housing a/
1958-60 Average and 1965

Resource	Percent	
	1958-60 Average	1965
Cement <u>b/</u>	35	20 to 25
Precast concrete products	50 to 55	40
Steel <u>c/</u>	3	2
Workers	30	25
Monetary expenditures	30 to 33	20 to 25

a. The share of resources allocated to housing is to decline roughly on a straight-line basis between 1960 and 1965 according to the schedule implied by the Seven Year Plan.

b. This estimate takes into account the cement used in precast concrete products and in mortar as well as the cement used in pouring concrete on site.

c. This estimate takes account of structural steel, pipe, miscellaneous steel, and all reinforcing steel except the amount used in precast concrete products.

The supply of cement and large concrete panels is expected to produce the most critical problems for housing, whereas brick is expected to be in oversupply. Cement will be particularly scarce in 1961 but gradually less so in subsequent years. The problems in supply of large concrete panels are expected to persist and possibly to become worse during the entire 5-year period. Any shortage in large panels could be made up by reverting to brick construction. Although brick was the predominant wall material in state housing until 1961 and although steady gains have been made in production, the use of brick is scheduled to be sharply curtailed, so that state housing is to require by 1965 only about 20 percent of the amount of brick required in 1960 and 1961.

Labor supply will constitute a problem during most of 1961-65 but probably not a serious one. The scheduled reductions in labor requirements per unit of state housing possibly will not be realized if the new methods in construction are not adopted as rapidly as planned. However, because the labor force had been built up during the drive on housing in 1957-60, a pool of experienced workers will be available should the need for them arise.

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d. Construction Costs

Continued inability to reduce costs as planned is expected to be an obstacle to construction of state housing during 1961-65. Past experience and anticipated conditions during these years make it likely that expenditures per unit of housing will be appreciably greater than planned.

Past trends show that Soviet planners unrealistically estimate the cost of construction of housing not only for long periods but even for the following year. During 1956-60, for example, unit costs averaged at least 25 percent greater than planned. During both 1958 and 1959, unit costs exceeded planned costs by 8 percent. 12/

Conditions during 1961-65 are expected, on balance, to keep costs higher than planned. As discussed above, upward pressures are to result from the trends toward a better quality of construction, from difficulties in effecting the program for large-panel construction, and from the fact that apartment house developments will be located at increasing distances from central sources of supply. The accelerated formation of housebuilding combines* and tighter financial controls are operating to reduce costs, but it is believed that planning officials have given unwarranted weight to the latter factors and have tended to ignore those factors that will keep costs high.

Although it seems clear that actual costs will exceed planned costs, the degree of excess is difficult to estimate. The anticipated conditions, viewed in the perspective of results during the past 5 years, make possible the judgment that housing costs during 1961-65 will be about 10 percent higher than planned.

B. Significance of Problems

The major problems discussed above are not serious enough to impede the fulfillment of the relatively easy goal for state housing during 1961-65, but they will force the Soviet government to use greater amounts of labor and materials than planned. The need to expend more resources per unit of new housing, moreover, will impose limitations on the amount by which Soviet leaders could reasonably choose to increase the planned volume of housing.

* Better coordination of construction is expected from the housebuilding combines that produce, transport, and erect precast concrete components. These functions formerly were divided among a number of organizations, none of which had full responsibility for the cost and quality of the housing built.

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There appear to be three alternative levels of construction of state housing from which the Soviet leaders may choose, as follows:

1. The volume of housing called for under the Seven Year Plan.

Construction during 1959-65 is to amount to 424 million sq m of housing, 313 million sq m of which would be built during 1961-65. The annual average volume would remain unchanged from the volume planned for 1961. Estimated funds expended during 1959-65 would be 30 percent of the funds allocated for construction during the Seven Year Plan and would exceed the planned expenditures by 10 percent.

2. A volume of housing 25 percent greater than that called for under the Seven Year Plan.

Construction during 1959-65 would amount to 530 million sq m of housing, about 420 million sq m of which would be built during 1961-65. The volume of construction would grow 12 percent per year starting in 1961. Estimated funds expended during 1959-65 would be 35 percent of the funds allocated for construction under the Seven Year Plan and would exceed the planned expenditures on housing by 30 to 35 percent.

3. A volume of housing substantially higher than called for under the Seven Year Plan.

For each increase of 20 million sq m above the 25-percent increase, the expenditures would increase by 18 billion to 20 billion rubles, and the share of the funds allocated for construction under the Seven Year Plan would increase by about 2 percent.

The choice of the Soviet leaders of one of these alternatives will be influenced by the considerations of cost outlined above. Other factors, including requirements for construction in other sectors and the role of private construction, also will have to be taken into account.

V. Problems and Opportunities in Construction of Private Housing*

The abrupt termination of governmental loans for private construction in the latter half of 1960 promoted the problem of private housing

* Private housing is built in spare time by individuals, half of whom use their own savings and half of whom receive financial aid from state banks or enterprises. The loans are in amounts up to 10,000 rubles, repayable over 7 years at 2-percent interest. The loan may not exceed 50 percent of the cost of [footnote continued on p. 17]

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to one of the critical questions concerning the housing program during 1961-65. This policy, if continued, could have the effect of canceling 15 to 20 percent of the urban housing scheduled to be built during those years. Most past problems associated with private housing have stemmed from the state's repugnance to the anomaly of private construction in a Communist-oriented society, while other problems have resulted from the scarcity of resources.

The role of private housing has varied in accordance with economic and political pressures. For example, in 1956, Soviet officials outlined to US housing delegates their government's plans to reduce the share of private housing from about 30 percent of construction of urban housing in 1955 to 15 percent in 1960. The Soviet decision in 1957 to permit 40 percent of the peak construction of housing in 1960 to be produced under the auspices of private housing illustrates both the urgency of the housing program and the state's inability to meet it with only state resources. A similar reversal could be made during 1962-65, when pressures on the housing program are expected to mount.

A. Factors Influencing Construction of Private Housing

Calculations of the potential construction of private housing must take into account the limits of demand and resources and the effect on state construction projects. It is impossible to estimate how much private housing will be built, however, without being able to predict the government's decisions on private construction. Some insight into possible decisions is gained from manifestations of the governmental attitude.

1. Governmental Attitude

After supporting and encouraging private builders in 1957 and 1958, when the goal for private housing was substantially exceeded, the government gradually cooled toward private construction. In 1960* the government's attitude grew increasingly antagonistic, and in the fall of that year the Communist Party press launched bitter attacks on

the house. Minimum control over private construction is exercised by the local soviets, banks, and the individual's enterprise. The enterprise, in addition, offers technical advice and helps deliver materials to the site. Private houses can be sold or rented, and they can be willed to descendants. The land, however, remains the property of the state, to which the individual pays a nominal rent.

* It should be noted again that in 1960 the goal for private housing was underfulfilled by one-third.

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private housing, striking hardest at the development of "a private-property psychology ... deeply hostile to socialism." 13/

Specific points of criticism included speculative building, corrupt acts of officials, pilferage of materials, diversion of public funds for the rental of private property, and "parasitism." "Parasites" were the worst offenders because they received income without working and thus lived in opposition to Communist precepts.

Other more practical reasons underlie the government's repugnance toward private housing. First, it is more difficult to schedule, manage, and control a massive program for construction of private housing, both at the national and at the regional level, because home-builders working in their spare time are not subject to the plan. Second, Soviet ideas on city planning are contradicted by private housing. The plotted pattern of development in a city is frequently broken by clusters or blocks of one-family dwellings that are not in keeping with the architecture and long-term plans for state housing and civic buildings. Third, the state will have to make higher expenditures over the long term for utilities and communal facilities in sections of private housing. Finally, the state's control and influence over the populace are loosened in the sections of private housing, making mass communication more difficult, the marketing problem more complex, and such programs as civil defense less manageable.

2. Demand for Private Housing

The effective demand for private housing, although not limitless, appears to be strong enough to support the scheduled volume of construction during 1961-65. Personal funds continued to accumulate in savings banks during recent years when private housing was increasing most rapidly. Funds in savings banks alone at the end of 1960 are estimated roughly to be seven to eight times the amount required for an average year's construction scheduled during 1961-65. The other ingredient of effective demand -- the will of the individual -- also appears to be easily adequate for the amount of scheduled private construction.*

3. Resources

The basic resources required for construction of private housing -- materials, labor, and land -- will be available in adequate

* Westerners have wondered at the display of zeal shown by private builders in the USSR, who apparently are motivated by other than economic considerations. The average cost of a private house is estimated to be the equal of more than 60 years' rent for an apartment of the size of the average unit to be built by the state during the Seven Year Plan.

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amounts on a national basis. Because the receipt of materials at construction sites and the allocation of building lots depend largely on the benevolence of the government, problems in supply could severely hinder private construction during 1961-65.

The major materials used in private housing are lumber, stone, and brick, all of which could be supplied in amounts needed for the construction scheduled or even for an expanded program. The requirements for private housing, not ordinarily in conflict with those for construction of state housing, will be progressively easier to supply during the next 5 years as the state program reduces radically its use of lumber and brick at the same time that production of those materials is to increase modestly.

The problem of acquiring a plot of land will continue to impede the private builder. Choice real estate will grow scarcer owing to the spreading of construction of state housing to suburban locations. Furthermore, local officials probably will exercise more stringent control over private builders, who in the past have asserted squatters' rights on land intended for the future construction of state housing. 14/

B. Potential of Construction of Private Housing

The lower limit to the range of possible construction of private housing during 1961-65 is the minimum volume to which the government can confidently restrict such construction in the light of the continuing severe housing shortage. The upper limit is equally difficult to state. It is believed, however, that 200 million sq m, or an average annual volume of 40 million sq m, of private housing could be maintained during the coming 5 years if the government so desired. This average is the amount that the government set for private housing in 1960, presumably on reasonable expectations founded on calculations of a smaller resource base than will exist during 1961-65.

VI. Prospects for Construction of Housing in 1961-65

The Soviet government will have a range of choice between the achievement of the volume of construction of housing planned for 1961-65 and the achievement of a substantially greater volume. Major influences on the government's choice will be the demand and capabilities for construction of housing and the competing economic requirements. Past decisions on housing appear to be the most valid guide to the government's probable choice.

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A. Major Influences

Demand for housing in 1961-65, as implied by the government's long-term housing goal, will total 600 million to 650 million sq m, about 25 percent more than planned during this period. A profusion of eye-witness reports by Western travelers to the USSR and statements by Soviet citizens attest to the need and demand for more housing. In a 1960 poll that sampled the opinions of a large number of railroad passengers living in all areas of the USSR, the Soviet press found that more than one-half of those questioned identified housing as their primary problem. Putting their feelings less objectively, some Soviet citizens have pointed out grudgingly that there is a contradiction between the government's ability to produce fine rockets and its failure to provide them with decent housing.

Potentially the current housing program could be expanded rapidly by supplementing the planned resources for construction of housing and raising its priority relative to other construction. A 25-percent expansion in accordance with the implied demand of the long-term goal, for example, would raise outlays for construction of housing to about 35 percent of that for state construction under the Seven Year Plan and would involve the ideological cost of permitting private housing to exceed the planned volume by 10 to 15 percent.* The hypothetical 50-percent expansion would be within the limits of the resources at the command of the Soviet government, but the cost of such an expansion would mean an increase for this sector to 40 to 45 percent of the total outlays for state construction under the Seven Year Plan and would result in a need to permit construction of private housing to increase by one-third.

If either of these alternatives were adopted, the economic effect would be softened by the favorable performance expected from the Soviet construction industry, for it is probable that the over-all goal for construction in the Seven Year Plan will be exceeded by 10 to 15 percent. Moreover, there apparently are no urgent needs to supplement planned construction in other sectors. Even the added costs of the hypothetical 50-percent expansion could be covered by a 15-percent increase in the total outlays for state construction. An expansion of this magnitude, however, would decrease markedly the flexibility of the Soviet planners in coping with unforeseen problems and opportunities in construction of industrial and transportation facilities.

B. Past Pledges and Commitments

During the 8 years since Stalin died, Soviet leaders, sometimes vying with one another, have pledged to improve the level of

* See IV, B, p. 15, above, and V, B, p. 19, above.

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urban housing and have termed this end a "major politico-economic task in the building of Communism." Toward that end the government has consistently fulfilled its goals for construction of housing, even during periods when other construction goals lagged. In 1953-55, for example, the government supplemented planned funds for construction of housing to overcome earlier lags in the housing program of the Fifth Five Year Plan (1951-55), and many of the new installations planned for heavy industry were not completed on time. When the original Sixth Five Year Plan (1956-60) was revised, housing funds were increased substantially, whereas the general scheme to develop industry in the eastern areas was severely curtailed. In 1957 and 1958, when goals for housing were materially exceeded, some lags in construction for heavy industry were noted.

The past pledges have been extended by Khrushchev's widely publicized goal of the elimination of the housing shortage by 1970. In spite of the ambiguity of its wording, this goal is the most binding commitment on housing that any Soviet leader has ever made.

C. Probable Volume of Housing

All the above considerations indicate that the Soviet government has built as much housing as it set out to do in the past and that it will be able to build enough housing during 1961-65 to keep pace with the needs of its long-term goal. On the above basis and on the assumption that no major economic disruptions will take place, it is estimated that the Soviet government will exploit its capability by adding 600 million to 650 million sq m of new housing during this period.

The division of this total floorspace between state and private construction will be influenced partly by political developments but more importantly by the capability of the state construction industry. It is estimated that the volume of state housing will reflect the maximum share of state construction resources which Soviet planners feel that they can afford to allocate to housing without jeopardizing other goals. This estimated volume ranges from 400 million to 450 million sq m.* It is estimated that private individuals will build the balance of about 200 million sq m, a compromise between a lower volume desired by the state and a higher volume that private builders would build if permitted.

* In March 1956 a Soviet construction official stated that the USSR would build 400 million sq m of housing between 1961 and 1965 according to plan. 15/ For this figure to be compatible with the estimated total outlay for state plan and other state housing, the figure stated in 1956 would have to be increased by 5 to 10 percent.

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Beyond 1965, there appears to be no reason to doubt the achievement of the long-term goal by 1970. Ironically, by the time this goal is achieved, Soviet citizens may well be more vocal in their dissatisfaction with housing conditions than they are at present. For, as Mikoyan has recognized, when new housing becomes increasingly available, more demand for housing is stimulated than is satisfied.

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APPENDIX A

STATISTICAL TABLES

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Table 2

USSR: Construction of Urban Housing a/*
1946-65

<u>Year</u>	<u>Million Square Meters <u>b</u></u>			<u>Private Construction as a Percent of Total Construction</u>
	<u>Total <u>c</u></u>	<u>State and Cooperative Construction</u>	<u>Private Construction</u>	
1946-50	102.8	72.4	30.4	30
1951	27.6	20.3	7.3	26
1952	27.4	20.0	7.4	27
1953	30.8	23.2	7.6	25
1954	32.5	24.4	8.1	25
1955	33.4	25.0	8.4	25
1956	41.0 <u>d</u>	29.5	11.5 <u>d</u>	28
1957	52.0	38.5	13.5	26
1958	71.2	46.7	24.5	34
1959	80.4	53.2	27.2	34
1960 <u>e</u>	85.0	58.0	27.0	32
1961 <u>f</u>	96.2	63.8	32.4	34
1962 <u>g</u>	95.0	62.0	33.0	35
1963 <u>g</u>	97.0	62.0	35.0	36
1964 <u>g</u>	99.0	62.0	37.0	37
1965 <u>g</u>	102.0	63.0	39.0	38

* Footnotes for Table 2 follow on p. 26.

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Table 2

USSR: Construction of Urban Housing a/
1946-65
(Continued)

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- b. One square meter equals 10.8 square feet.
- c. Total space comprises all the interior space of dwelling units (bedrooms, living rooms, kitchens, bathrooms, corridors, closets). This measurement of construction of housing is used in announcements of plans and plan fulfillment. A source of frequent confusion is the term living space, which is restricted to about 65 percent of the total space, as it includes only living rooms and bedrooms. Living space is the basis for rental payments -- 1.32 rubles per sq m of living space per month -- and for calculating the cost and allocations to construction of housing.
- d. In the data on 1956 and subsequent years the total of urban housing includes housing built by private individuals at state farms, machine tractor stations, tractor-repair stations, and timber enterprises. In order to make the series comparable, the annual volumes of private housing built in 1951-55 would have to be augmented by an estimated average of 2 million sq m per year.
- e. 17/
- f. Planned for 1961. 18/
- g. The total volume of construction of housing during 1962-65 is derived by reducing the goals of the Seven Year Plan (1959-65) by the amounts of housing built and planned during 1959-61. Planned annual volumes of state housing are estimated at the average of the 4 remaining years. It is estimated that the volume of construction of private housing is planned to rise gradually between 1961 and 1965.

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Table 3

USSR: Expenditures on Construction of Urban Housing
by State and Cooperative Organizations
and the Share of Total Expenditures Devoted to Housing a/
1946-65

<u>Year</u>	<u>Expenditures (Billion 1955 Rubles)</u>	<u>Housing as a Percent of Total State Construction</u>
1946-50	44.0	20
1951-55	104.5	25
1956	29.5	26
1957	41.7	32
1958	48.8	33
1959	52.7	31
1960 <u>b/</u>	56.0	N.A.
1961 <u>c/</u>	55.7	N.A.
1959-65 Plan <u>d/</u>	323.0	27

b. Estimated.

c. Plan. 20/

d. 21/

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Table 4

USSR: Cost Factors in Planned Construction of State Housing a/
Selected Years
1953-65

Year	Average Cost per Square Meter of Living Space (Rubles)		Index of Average Actual Costs (1956 = 100)
	Planned	Actual	
1953	N.A.	N.A.	76 <u>b/</u>
1956	N.A.	1,429 <u>c/</u>	100
1957	N.A.	1,486 <u>d/</u>	104
1958	1,351 <u>e/</u>	1,454 <u>f/</u>	102
1959	1,298 <u>g/</u>	1,400 <u>h/</u>	N.A. <u>h/</u>
1960	1,310 <u>h/</u>	N.A.	N.A.
1961	1,317 <u>i/</u>	N.A.	N.A.
1965	1,173 <u>j/</u>	N.A.	N.A.

a. Planned state housing comprises about 90 percent of all construction of state housing. The balance, noncentralized state housing, costs 10 to 15 percent more per sq m of living space.

c. 23/

d. 24/

e. 25/

f. 26/

g. 27/

h. 28/. The figure for actual cost in 1959 is preliminary and therefore is not used in the index of costs.

j. 30/

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