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Recent Reforms in the Soviet Housing Construction Process

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The Soviet construction industry has been basking in the rays of a seller's market sun for many years. Unlike its Western counterpart it knows nothing of boom and bust cycles. Demands for industrial, civil and residential structures is so unslakable that builders habitually fail to complete orders on time--in contrast to most sectors of the Soviet economy, yearly and five-yearly construction plans are rarely met. Because of the heavy and continuous work schedule, builders, architects, construction engineers and workers take their employment for granted; the industry suffers from a chronic shortage of qualified labor.

Builders are greatly assisted by the varied and numerous governmental research design and construction institutes which employe thousands of city planners, architects, engineers, economists and other specialists whose task it is to design and develop physical plans for towns, building systems, construction material and construction equipment. In practice they are far less restricted by environmental safeguards than are American builders and generally are not concerned with grass roots opposition.

Typically in a seller's market, theonly ones not satisfied with the product are the customers; the government which pays for the structures and the consumer who uses them. The complaint against the industry is that its product is costly, that it chronically falls short of planned

targets, that it is an inefficient user of labor, materials and equipment--all of which are in very short supply, and that its buildings are shoddy.

Soviet leaders, planners, architects, builders, system analysts and economists are very much aware of the system's defects. They wish to rationalize the construction process for industrial, civil and residential buildings. These issues are frequently discussed in the press and in professional journals. If factories equipped with modern machinery were completed on time or ahead of schedule the products produced by them would be a boon to the economy and of great societal benefit. They would help to reduce the num ber of bottlenecks which currently plague Soviet industry.

Although since the mid-1950's the U.S.S.R. has produced an average of 2.2 million housing units yearly, an estimated 30 percent or more of urban households (families and singles) still live communally or in factory dormitories. Because of a zero vacancy rate and with millions waiting to receive their own apartments, most newlyweds are compelled to live with their parents for many years before getting a place of their own.[1]

Poor housing conditions impede economic development; factories can not hire labor if workers have no place to live. Moscow's most serious problem is a shortage of 150,000 skilled woerks and employees for who accomodations can not

be found. High labor turnover is also, in part, attributed to the housing shortage. When not living with parents singles find lodging primarily in sublet rooms or in dormitories of factories where five to twenty are crowded into a room, frequently leaving their jobs because of the poor accomodations. In the early 1970's some four million singles lived in dormitories--about 9 percent of all urban households.[2]

Increasing the quantity and improving the quality of construction is a great concern of Soviet politicians, planners and builders. Two reforms, primarily in residential housing construction that have been introduced in recent years, the Zlobin method and the Orel Continuous Planning System will be discussed and evaluated.

The Zlobin Method

Soviet construction is plagued by large numbers of unfinished construction projects, high costs and a low rate of labor productivity. A major contributing factor to this situation, and one which goes beyond the construction industry and affects the entire economy is an incentive structure which rewards gross volume output not only for a completed product but also for component parts that make up the product. In construction this includes the amount of excavation work completed, units of building panels produced, the number of

houses erected--although not accepted for occupancy until plasterers and painters finsih the job and electricians and plumbers connect the utility lines. Frequently it is advantageous to use costlier methods and materials because the rewards are correspondingly higher. Winter rates for excavation are much higher than those paid in the summer. That is why according to a Soviet commentator, "construction workers...enthusiastically hack away at the frozen ground...burning coal and building up notorious volume figures."[3]

Nikolai Zlobin, a construction brigade leader from Zelinograd devised a method which he claimed would significantly spped up the housing construction process, accelerate labor productivity and lower building costs. His plan was logical and appeared simple. Under the Zlobin system a construction organization contracts a brigade (which is a team of construction workers possessing various skills) to build a house or an industrial facility from start to finish. Payment to the brigade is made only when the project is completed and accepted for occupancy. If the brrigade finishes the work on time1 or ahead of schedule it qualfies for a bonus according to the savings achieved over the planned cost. It is,therefore, in a brigade's interest to finish the job quickly using as small

a labor force as possible. The bonus may be as much as 40 percent of the savings achieved.[4]

Soon after Zlobin introduced his method in 1970, it received wide publicity in the press. Subsequently he was awarded the honorary title, "Hero of Socialist Labor," and made a deputy of the Supreme Soviet. Construction organizations were ordered to apply his sytem on a broad scale. Many attempted to do so but the plan never received universal application; Although figures reported vary from year to year and from republic to republic, in 1979 it was estimated that only 22 percent of the total number employed in construction used the Zlobin method. Even that figure is greatly suspect--a point which will be clarified shortly.[5]

The basis of a smoothly functioning Zlobin brigade is a labor force possessing necessary skills and an uninterrupted flow of construction materials and equipment are needed to prevent work interruptions. Of these, supplies are the most vulnerable link. Because of great demand and a poorly functioning distribution system construction materials are chronically in short supply or simply unobtainable, which leads to hoarding and other corrupt practices. "More than one-third of all contracts for construction work failed ro be fulfilled because of delayed or incomplete delivery

of materials....Builders have to use scarce rolled metal shapes in types that do not conform to those called for in in designs. They have to use metal pipe instead of ceramic pipe, and to use unjustifiably high grades of cement."[6]

Another problem is the brigade's dependency on subcontractors: electricians, plumbers, sanitary engineers, elevator installers and finishing workers. These belong to different trusts and quite often to different ministries.[7] Because subcontractors are not included in the contract and, therefore, lacking the monetary incentive they frequently do not coordinate their work closely with the brigade causing serious delays.

Zlobin first attracted public attention when his brigade built a 14-story brick house in 155 days compared to the brigade of Alexander Kuznetsov, also of Zelinograd, which built the same structure in 225 dyas using the old system. The next tiem around it took Zlobin only 82 days to build the same house. When a reporter asked Kuznetsov if he could do what Zlobin did he complained, " I could do it if they gave me everything they gave him....They gave him a second crane to operate in tandem with the first. We didn't get one. When there was a bottleneck in concrete supply, they brought in concrete from Tushino. But none was brought in for us. When we ran short of sand, he kept getting his

as regular as clockwork, because his job was experimental. He put his roof on when the weather was still warm, but I had to wait for the elevators until autumn. Now do you understand?"[8]

Now, almost a decade later it appears Kuznetsov's grumblings were prophetic. The Zlobin method, despite the high hopes it raised, remains experimental and cannot be widely applied because it is dependent on a steady schedule of supplies, equipment, subcontracting assistance which the system is unable to provide given its present organization and incentive structure.

Zlobin himself questioned the accuracy of a report which claimed that 9 percent of Russian Republic building workers in 1975 operated under his system, and these, it turned out, did so only half of the time. "He said he had received complaints from all over the country that the contract method was slipping. The brigades could not depend on supplies, and contract payments were delayed by red tape. In Zelinograde, for these reasons, only his own brigade remained on the contract system."[9]

It developed that claims for the success of the Zlobin method were spuriously inflated because of "unrealistic demands that the construction trust and ministry are placing on contract brigades."[10] The North Caucasus Construction

Administration Trust No.5, for example, was pressured into converting 21 of its 69 brigades to the contract system in 1976. But only two of them fulfilled their plans--and both of those plans had been reduced. The reason for this failure was that the trust's 1976 plans for contract projects was set 51 percent above its 1975 performance level. A manpower shortage of 1,000 resulted, and the trust received only 70 percent of the supplies stipulated. "No on can tally the nerves ruined as a consequence," a spokesman for the trust remarked, "or the number of foremen whose health suffered, or the number of reprimands received."[11]

Other parts of the country reported similar failure when construction firms were pressured to institute the Zlobin method on a broad scale. The chief engineer of a Kiev province construction administration declared that, "widespread implementation of the Zlobin system in his administration is happening only on paper." When his administration was instructed to use the Zlobin method in 30 percent of its construction and installation projects, officials made massive efforts to accomplish the shift. They were told that those who did not succeed would be considered unfit for their jobs. The more zealous among them soon reported that 70 percent of their brigades had made the shift. However, at the end of the year the administration discovered that only 9 brigades were operating by the Zlobin

method, and even those, "were only attempting to do so." The chief engineer remarked, "I am convinced that the great majority of administrations also give fake data."[12]

Most brigades never in fact adopted the Zlobin method. Those who tried generally failed and soon reverted to the old system in which rewards were based on individual job completions: excavations, installation work, etc., thereby successfully fulfilling the plan in parts but not completing the construction of a building on schedule.

Zlobin's attempt to rationalize the construction process failed because of overpowering systemic factors which he could not overcome, namely that monetary reward in Soviet society is still based primarily on the volume of segmented jobs produced than the number of projects completed. These incentives are applied throughout the system because planners at the macro level are unable to plan specific quantities and types of the multi-million products that are needed and produced in the U.S.S.R. They are, therefore, forced to rely on controlable indices such as volume, size or weight of objects, with the predictable results that those on the micro level will manufacture those goods that pay the most and also are the easiest to produce. These rarely conincide with the quantity and types of goods needed by other sectors of the economy or by the consumer. For example, if the plan goes according to weight, only heavy nails will be produced,

if by number, only small, thin ones.

The Orel Method of Continuous Planning

> What about the local Soviets? Let's be candid.... The are still not the masters of many cities....A large part of the housing stock does not belong to them, and they are no in charge of money for the development of municipal services. Furthermore, the power to compel ministries and departments to take account of the interest of comprehensive urban development is rather small. 13

A serious problem of Soviet cities is the lack of integrated planning that balances industrial growth with the development of such vital urban services as housing, transportation, shopping facilities, schools, medical clinics and day care centers. Over the past 50 years Soviet society has recorded one of the fastest urbanization rates in the world. In 1926, 23.3 million livedin urban areas and there were two cities with over one million inhabitants, and 19 with a population of over 100,000. By the beginning of 1979 the number of urban residents had increased sixfold to 163.6 million and there were 18 cities with a population of over one million and 232 cities with more than 100,000 inhabitants.[14]

Heavy investment in building new factories spurred the rapid growth of cities. Practically all of these, whether they were old communities or newly created urban centers, became company towns in which one or several enterprises belonging to federal ministries assumed responsibility

not only for industrial development but also in many instances for the financing, building and administration of urban services--which habitually lagged far behind industrial expansion.

City governments, the local Soviets and their executive committees, nominally responsible for urban services, became supplicants in their relationship with the industrial bosses and dependent on the latter's good will for financing urban facilities. This unequal relationship essentially still prevails except for Moscow, Leningrad, the capitals of republics and for some of the older and larger urban centers which, having established greater financial and administrative independence for themselves, have thereby achieved greater control over the planning and construction processes of their cities.

The Orel system of continuous planning for housing and civil construction is a reform which aims at systematizing integrated urban development under the supervision of city governments instead of enterprises and factories of ministries. (It is named after the city of 300,000 inhabitants, located south of Moscow, where the measure was first applied.)

Introduced in October, 1971, at the suggestion of the Orel Province Party Committee, the reform has two principle components: that the city government, specifically the city Soviet

executive committe's capital construction administration should become the "single client" (developer) for all housing and civil construction for enterprises and the municipality. Previously, enterprises of ministries were their own clients and placed orders directly with design institutes and construction trusts, usually under the jurisdication of republic or federal ministries, for the building of new housing--without necessarily consulting with city agencies. It was not unusual for a city of Orel's size to have had 30 clientes; Moscow at one time had 500.[15]

Secondly, that planning for construction should be projected over a two year period instead of a yearly one, which had been customary, to ensure an even flow of construction. The purpose of a two-year schedule was to be able to establish at the end of each year the amount of money necessary for facilities scheduled for an early start-up and for the carry-over of projects. The schedule for the second year is initially preliminary, but when it is finalized it provides for a backlog of work which will be included in the preliminary third year plan thus sustaining a constant construction rhythm.[16]

The benefit of placing capital investment in the hands of a single client was putting an end to the scattering of capital investments, reducing by one-third the number of apartment houses that were under construction simultaneously, cutting construction time and increasing labor productivity;

all resulting in significant savings.[17]

Another aim of the Orel system was to eliminate the costly practice of traditionally completing 50 percent of all housing construction in the fourth quarter and 40 percent in December along. Because of the customary end-of-year "storming," buildings are hastily completed and a high proportion of them should fail to meet the minimum standards for occupancy. Nevertheless, they are usually approved by pressured inspectors so that construction firms can satisfy the yearly plan.

Orel proudly claimed that its housing completion was being evenly distributed over four quarters in 1973--21.3 percent in the first, 22.4 percent in the second, 27.4 percent in the third and 28.9 percent in the fourth. If these percentages are correct and hold up over the years and if they can be replicated in other cities where the Orel method has been implemented, a significant improvement in the quality of construction will have been achieved.[18]

The Orel method is not problem free. In none of the cities where it has been introduced has the multi-client syndrome been eliminated, although the number of clients have been significantly reduced. Certain enterprises and organizations are simply too powerful to be forced or cajoled to transfering their independent construction resources to

the city government. Even in Orel, the nation's model, 15 percent of housing construction funds were not invested with the "single client" in 1974.[19] This holds true for other cities as well. In Moscow, the armed forces retain a single client status, as undoubtably do other powerful agencies including the State Committee of State Security (the K.G.B.).

It is, of course, most difficult to make the system work in new towns where even if the city government is the single client, it will do the bidding of one or several enterprises of ministries which monopolize the financing of housing construction and other municipal services. The clout which ministries still have in controlling urban services was demonstrated in a March, 1978 U.S.S.R. Council of Ministers resolution which strongly urged the widespread adoption of the Orel system. Yet it assigned the position of single client to local Soviet executive committees or to enterprises and organizations of ministries carrying out the bulk of construction in a city. The right of sharing single client status between local Soviets and agents of ministries had to be considered a set back for Orel supporters.[20]

Another continuing difficulty for the Orel method is that the U.S.S.R. State Planning and Construction Committes, although instructed by the Central Committee of the Communist Party to assign two-year plans to builders and clients, still work on a yearly basis. This means that

at the local government level the plans have to be extended to two-year schedules and coordinated with suppliers--a frustrating and time consuming operation.[21]

Capital construction administrations whose responsibilities and duties have been greatly expanded in their role as single client now lack qualified specialists. They are in competition with construction trusts of enterprises and ministries who are holding on to their personnel. "In Orel, Tula, Yaroslavl and Kharkhov--and in other cities as well--the total number of persons handling questions of housing and civil construction is substantially larger than the principal client's staff."[22] It is not clear whether they are busy working on projects or just marking time. If the former is true it would make the large construction figures claimed by Orel-type cities suspect.

Lastly, chronic problems of delays in delivery of supplies and equipment place the Orel continuous planning method in jeopardy. The major of Smolensk lamented, "It becomes frequently necessary to dispatch personnel from capital construction administrations as pilgrims to various cities around the country to provide projects on the verge of completion with everything needed to end them. Regretably this does not always succeed. Structures that are sometimes of very great imortance to the life of the city

are kept from being put in service.[23]

Despite many problems, the Orel method seems to have been a positive step toward forward/integrated municipal planning and rationalizing the housing and civil construction process in those cities where it has been applied.

Concluding Remarks

In societies such as the Soviet Union (and the United States) successful reforms must usually be limited in scope. If too ambitious they arouse strong opposition in vested interest groups who fear that the intended changes will cause them to suffer political or economic losses.

The Zlobin method was too radical to succeed. Its reward structure was inconsistent with that of the rest of society. The success of a Zlobin brigade depended on the quick construction of an apartment building. The other economic units which operated around Zlobin were rewarded principally for completing segments within the construction cycle. So also were the suppliers of goods and equipment. The Zlobin brigades could not succeed unless the larger economic system changed its incentive structure which the political leaders were not prepared to do. It is noteworthy that although the Party endorsed both the Zlobin brigade and the Orel method it did not instruct the Soviet government to pass enabling legislation which would legally compel all

construction brigades to adopt Zlobin's method and all municipalities to embrace the Orel system. This did not take place because Party leaders knew that such laws would be unenforcable and opposed by political and economic bureaucracies wishing to maintain the status quo. That is why both reforms remained experimental despite strong advocay in the press that they should be instituted on a nation-wide scale.

The Orel method was more successful because it did not tilt swords against windmills. It was a realistic reform for those cities in the middle age of their industrial development where the interests of ministerial enterprises could coincide with city government, permitting the latter to plan and implement housing and civil construction so that factory managers could concentrate fully on production problems.

Notes

1. See Henry W. Morton, "The Soviet Quest for Better Housing--An Impossible Dream?" Soviet Economy in a Time of Change, Washington D.C., Joint Economic Committee of Congress of the U.S. (October, 1979), passim.

2. Ibid.

3. A.G. Aganbegyan, "Besides One's Work Partner." Literaturnaya gazeta, May 4, 1977, translated in Current Digest of the Soviet Press (hereafter,CD) XXIX,19 (June 6, 1977), p.6.

4. Radio Liberty Research 217/76 (April 28, 1976), p.3.

5. Izvestia, July 26, 1979, CD, XXXI,30 (August 22, 1979), p.18.

6. Ibid., p. 19.

7. Kommunist, 11 (July, 1976), CD, XXVIII,33 (September 15, 1976), p.11.

8. Izvestia, October 9, 1971, CD,XXIII,41 (November 9, 1971), p.16.

9. Literaturnaya gazeta, January 5, 1977, CD, XXIX,2 (February 9, 1977), p.15.

10. Literaturnaya gazeta, March 2, 1977, CD, XXIX,9 (March 30, 1977), p.16.

11. Ibid.

12. Ibid.

13. Pravda, November 13, 1976, CD, XXVIII,46 (December 15, 1976),p.8.

14. Strana soveta za 50 let, Moscow, Statistika (1967), p.21; Literaturnaya gazeta, October 3, 1979, CD, XXXI,41 (November 7, 1979), p.4.

15. Izvestia, August 21, 1974, CD,XXVI,31 (September 18, 1974), Ekonomicheskaya gazeta, 13 (March, 1975), CD, XXVII,15 (May 7, 1975), p.8. For the number of clients in Moscow see William Taubman, Governing Soviet Cities, N.Y., Praeger (1973), p. 105.

16. N. Udalov, "The Orel 'Continuous Flow' Method," Sovety deputatov trudyashchiksya, 5 (1974), Soviet Law & Government, XIV (Winter 1975-1976), p.5.

17. Pravda, August 21, 1974, CD, XXVI, 31 (September 18, 1974),p.10.

18. Udalov, op. cit., p.8.

19. Ibid., p.7

20. Planovoye khozyaystvo, 8 (August, 1978), CD,XXX,41, (November 8, 1978), p.10.

21. Pravda, August 2, 1976, CD,XXVIII, 31 (September 1, 1976), p.16.

22. Ibid.

23. A. Orlov, "In the Interest of Comprehensive Development," Sovety deputatov trudyashchiksya,2 (1974), Soviet Law & Government, XIV,3 (Winter 1975-1976), p.12.